



# JHARKHAND ECONOMIC SURVEY

2020-21



**PLANNING-CUM-FINANCE DEPARTMENT**  
CENTRE FOR FISCAL STUDIES  
GOVERNMENT OF JHARKHAND



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Centre for Fiscal Studies  
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### Acronyms and Abbreviations

AABY	Aam Admi Bima Yojana
AAGR	Average Annual Growth Rate
AAH	Anna Amrutha Hastham
AAI	Airports Authority of India
AAP	Annual Action Plan
AAJ	Anatyodaya Anna Yojana
AY	Annapurna Yojna
ABD	Area Based Development
ABDEAS	Accrual Based Double Entry Accounting System
AB-PMJAY	Ayushman Bharat –Pradhan Mantri Jan Aarogya Yojana
ACA	Additional Central Assistance
ACPHD	Alameda County Public Health Department
ACP	Annual Credit Plan
AD	Authorized Dealer
ADB	Asian Development Bank
ADI	Average Daily Intake
AFY	Annual Financial Year
AGEGC	Agriculture sector excluding growing of crops
AGY	Adarsh Gram Yojana
AHP	Affordable Housing in Partnership
AGYW	Adolescent Girl and Young Women
AIADA	Accelerate Irrigation Benefit Programme
AIBP	Adityapur Industrial Area Development Authority
AIBP	Accelerate Irrigation Benefit Programme
AICTE	All India Council for Technical Education
AID	Alternative for India Development
AIDS	Acquired Immune Deficiency Syndrome
AIIMS	All India Institute of Medical Sciences
AISCET	All India Society for Electronics & Computer Technology
AISHE	All India Survey on Higher Education
AJJPY	Aadim JanJati Pension Yojna
AJSVN	Anusuchit Janjati Sahakarita Vikas Nigam
AKM	Ajeevika Krishi Mitra
ALF	Area Level Foundation
ALIMCO	Artificial Limbs Manufacturing Corporation of India
AMB	Anemia Mukta Bharat
AMI	Agricultural Marketing Infrastructure
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
ANBC	Adjusted Net Bank Credit

ANC	Antenatal care
ANCDR	Annual New Case Detection Rate
ANM	Auxiliary Nurse Midwifery
ANR	Aided Natural Regeneration
APL	Above Poverty Line
APMC	Agricultural Produce Market Committee
APS	Ajeevika Pashu Sakhi
APY	Atal Pension Yojana
ART	Antiretroviral Therapy
ARSH	Adolescent Reproductive and Sexual Health
ARWSP	Accelerated Rural Water Supply Programme
ASDP	Aajeevika Skill Development Programme
ASER	Annual Status of Education Report
ASHA	Accredited Social Health Activist
ASI	Annual Survey of Industries
ASI	Archaeological Survey of India
ASK	Aajeevika Sansadhan Kendra
ASIDE	Assistance to States for Development of Export Infrastructure and Allied Activities
AT&C	Aggregate Technical and Commercial
ATDC	Apparel Training & Design Centre
ATS	Apprenticeship Training Scheme
ATM	Asynchronous Transfer Mode
AVM	Ajeevika Vanopaj Mitra
AWC	Anganwari Centre
AWH	Anganwadi Helper
AWW	Angawadi Workers
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BAY	Birsa Awas Yojana
BBBP	Beti Bachao Beti Padhao
B.S.N.L	Bharat Sanchar Nigam Limited
BAIF	Bharatiya Agro Industries Foundation
BBBP	Beti Bachao Beti Padhao
BC	Backward Caste
BCCL	Bharat Coking Coal Limited
BCG	Bacillus Calmette–Guérin
BCM	Billion Cubic Meter
BDOs	Block Development Officers
BDS	Bachelor of Dental Surgery
BE	Budget Estimate
BEE	Bureau of Energy Efficiency
BEMOC	Basic Emergency Obstetric Care Training

BGGs	Bulk Garbage Generators
BIADA	Barhi Industrial Area
BHGY	Birsa Harit Gram Yojna
BHQs	Block Head Quarters
BIS	Bureau of Indian Standards
BIT	Birsa Institute of Technology
BLF	Block Level Federation
BMB	Bharatiya Mahila Bank
BMBY	Birsa Munda Bagwani Yojana
BMC	Biodiversity Management Committee
BMI	Body Mass Index
BMMU	Block Mission Management Unit
BLC	Block Level Committee
BOT	Build Operate And Transfer
BPDB	Bangladesh Power Development Board
BPED	Bachelors in Physical Education
BPL	Below Poverty Line
BPs	Boundary Pillars
BPO	Block Project Officer
BRAP	Business Reform Action Plan
BRP	Block Resource Person
BRGF	Backward Regions Grant Fund
BSNL	Bharat Sanchar Nigam Limited
BSSPY	Bal Shramik Shiksha Protsahan Yojana
BSPU	Basic Seed Production Unit
BSUP	Basic Services to Urban Poor
BTRA	Bombay Textiles Research Association
BTS	Base Transceiver Services
CA	Controlled Atmosphere
CA	Compensatory Afforestation
CAB	Clinical, Anthropometric and Bio-chemical
CAB-AHS	Clinical, Anthropometric and Biochemical-Annual Health Survey
CAD	Computer Aided Design
CAL	Computer Aided Learning
CADWM	Command Area Development and Water Management
CAGR	Compound Annual Growth Rate
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CAPART	Council for Advancement of People's Action and Rural Technology
CAs	Certification Agencies
CASP	Community Aid & Sponsorship Programme
CBCS	Choice-Based Credit System

CBMS	Community Based Monitoring System
CBO	Community Based Organization
CBR	Crude Birth Rate
CC	Collection Centres
CCB	Central Cooperative Bank
CCD	Conservation cum Development
CCDU	Communication and Capacity Development Unit
CCI	Child Care Institution
CCL	Central Coalfields Limited
CCSAMMN	Climate change and Sustainable Agriculture: Monitoring, Modeling and Networking
CCTV	Closed-Circuit Television Video
CDLG	Capacity Development for Local Governance
CDR	Credit-Deposit Ratio
CDR	Crude Death Rate
CEO	Chief Executive Officer
CETP	Common Effluent Treatment Plant
CFB	Citizen's Feedback
CFC	Central Finance Commission
CFCs	Common Facility Centres
CFGPA	Child-Friendly Gram Panchayat Award
CFPS	Child Friendly Police Stations
CFS	Centre for fiscal Studies
CFT	Cluster Facilitation Teams
CGF	Critical Gap Fund
CGGC	Chotanagpur Granitic Gneissic Complex
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises
CGSSD	Credit Guarantee Scheme for Subordinate Debt
CGWB	Central Ground Water Board
CHC	Community Health Centres
CID	Crime Investigation Department
CIDC	Construction Industry Development Council
CIF	Community Investment Fund
CIL	Coal India Limited
CIPET	Central Institute for Plastic Engineering & Technology
CITES	Convention on International Trade In Endangered Species
CJs	Community Journalists
CLF	Cluster Level Federation
CMIE	Centre for Monitoring Indian Economy
CMP	Comprehensive Mobility Plan
CMTC	Community Managed Training Centres
CMSA	Chief Minister's Social Assistance

CMSA	Community Managed Sustainable Agriculture
CNNS	Comprehensive National Nutrition Survey
CNCP	Child in Need for Care and Protection
CNT	Chotanagpur Tenancy
CoE	Centres of Excellence
Cos	Community Organisers
CPHS	Consumer Pyramid Household Survey
CPIS	Comprehensive Project Investment Subsidy
CPI	Consumer Price Index
CPL	Commercial Pilot License
CPSU	Central Public Sector Undertaking
CRF	Central Road Fund
CRISIL	Credit Rating Information Services of India Limited
CRP	Community Resource Person
CSC	Common Service Centres
CSBs	Community Seed Banks
CSO	Central Statistical Organisation
CSR	Corporate Social Responsibility
CSR	Child Sex Ratio
CSS	Centrally Sponsored Schemes
CST	Central Sales Tax
CTE	Colleges for Teacher Education
CTI	Central Training Institute
CTS	Craftsman Training Scheme
CUG	Closed User Group
CWC	Child Welfare Committee
CWMI	Composite Water Management Index
CWS	Current Weekly Status
CWSN	Children with Special Needs (CWSN)
CZA	Central Zoo Authority
DAA	District Appropriate Authority
DAC	Department of Agriculture and Cooperation
DANIDA	Danish International Development Agency
DANWADEP	Danida's Watershed Development Programme
DAP	Di Ammonium Phosphate
DAY	Deen Dayal Antyoodaya Yojna
DBFO	Design Build Finance Operate
DBT	Direct Benefits Transfer
DC	Deputy Commissioner
DDC	Deputy Development Commissioner
DDRC	District Disability Rehabilitation Centre

DCBC	District Capacity Building Committee
DCCB	District Central Cooperative Banks
DCPU	District Child Protection Unit
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana
DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
DDUPSP	Deen Dayal Upadhyay Panchayat Sashaktikaran Puraskar
DDRC	District Disability Rehabilitation Centre
DEF	Development Financial Institution
DELP	Domestic Efficient Lighting Programme
DEO	District Education Officer
DES	Directorate of Economics and Statistics
DFCCI	Dedicated Freight Corridor Corporation of India
DFS	Department of Financial Services
DO	Divert Observation
DOE	Department of Education
DoLR	Department of Land Resources
DGFT	Directorate General of Foreign Trade
DGPS	Differential Global Positioning System
DHS	Demographic Health Survey
DHQ	District Head Quarter
DIC	District Industries Centre
DIET	District Institutes of Education and Training
DIPP	Department of Industrial Policy and Promotion
DIP	District Irrigation Plan
DISE	District Information System for Education
DKVK	Divyayan Krishi Vigyan Kendra
DLBC	District Level Banking Committee
DLCC	District Level Coordination Committee
DLCW	District Level Centre for Women
DLSA	District Legal Services Authority
DMMU	District Mission Management Unit
DMP	Disaster Management Plan
DMPA	Depot Medroxyprogesterone Acetate
DoIT	Department of Information Technology
DPAP	Drought Prone Areas Programme
DPR	Detail Project Report
DPT	Diphtheria, Pertussis, and Tetanus
DRDA	District Rural Development Agencies
DRDO	Defense Research Development Organization
DRI	Differential Rate of Interest
DRPs	District Resource Persons



DRS	Debt Restructuring Scheme
DSD	Direct Store Delivery
DSR	District Survey Report
DSS	Direct Subsidy Scheme
DTR	Dynamic Thermal Rating
DVC	Damodar Valley Corporation
DWCDSS	Department for Women, Child Development and Social Security
DWSD	Drinking Water and Sanitation Department
EAG	Empowered Action Group
EAP	Externally Aided Project
EBD	Educationally Backward Districts
ECCE	Early Childhood Care and Education
ECGC	Export Credit Guarantee Corporation
ECLGS	Emergency Credit Line Guarantee Scheme
ECR	Emigration Check Required
EDA	Export Development Assistance
EDF	Electronics Development Fund
EDI	Education Development Index
EDP	Entrepreneurship Development Program
EI & IS	Economically Important & Inter-State
EIA	Energy Information Administration
EMC	Electronic Manufacturing Cluster
EMOC	Emergency Obstetric Care Training
EMRS	Eklavya Model Residential Schools
ENC	Essential New Born Care
EOC	Emergency Operation Centres
EOI	Expression of Interest
EOUs	Export Oriented Units
EPA	Entry Point Activity
EPC	Engineering Procurement and Construction
EPF	Employee Provident Fund
ERM	Extension Renovation & Modernization
ERO	External Resource Organisations
ESDM	Electronic System Design and Manufacturing
ESI	Employees' State Insurance
EST&P	Employment through Skills Training & Placement
ESZ	Ecologically Sensitive Zones
EXCEL	Employability Excellence Centre and Education Learning
EWR	Elected Women Representative
EWS	Economically Weaker Sections
FC	Fixed Capital

FC	Finance Commission
FCC	Fourteenth Finance Commission
FCI	Food Corporation of India
FDA	Forest Development Agencies
FDI	Foreign Direct Investment
FDDI	Footwear Design and Development Institute
FFS	Farmers Field School
FHTC	Functional Household Tap Connection
FIEO	Federation of Indian Export Organisations
FIRMS	Fire Information for Resource Management System
FLCC	Financial Literacy and Credit Counselling
FLCs	Financial Literacy Centers
FMD	Foot and Mouth Disease
FNHW	Food, Nutrition, Health and WASH
FPC	Flat Plate Collector
FPOS	Farmer Producer Organizations
FPIS	Family Planning Indemnity Scheme
FPLMIS	Family Planning Logistic Management Information System
FPS	Fair Price Shops
FRBM	Fiscal Responsibility and Budget Management
FRH	Forest Rest House
FSI	Forest Survey of India
FTK	Field Test Kits
FTO	Fund Transfer Order
FY	Financial Year
GAR	Gross Attendance Ratio
GATS	Global Adult Tobacco Survey
GCA	Gross Cropped Area
GCF	Gross Capital Formation
GDI	Gender Development Index
GDP	Gross Domestic Product
GEM	Gender Empowerment Measure
GER	Gross Enrolment Ratio
GHG	Green House Gases
GIA	Gross Irrigated Area
GIS	Global Investor summit
GIS	Geographical Information System
GoI	Government of India
GoJ	Government of Jharkhand
GPDP	Gram Panchayat Development Plan
GPDPA	Gram Panchayat Development Plan Award

GPF	General Provident Fund
GPI	Gender Parity Index
GPS	Global Positioning System
GR	Ganga Rejuvenation
GRDA	Greater Ranchi Development Authority
GSD	Gross State Domestic
GSPEC	Gram Sabha Project Execution Committee
GSDP	Gross State Domestic Product
GSS	Grid Sub-Station
GST	Good and Service Tax
GSVA	Gross State Value Added
GVA	Gross Value Added
GWMW	Ground Water Monitoring Wells
GWSW	Ground Water & Surface Water
HaM	Hectare-Meter
HAPIS	Horticulture Area Production Info System
HCM	Hot Cooked Meal
HDI	Human Development Index
HDR	Human Development Report
HEC	Heavy Engineering Corporation
HIS	Hydrologic Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HLTC	High Level Technical Committee
HPEC	High Powered Expert Committee
HPD	High Priority Districts
HRD	Human Resource Department
HSC	Health Sub Centres
HQ	Head Quarter
HTLS	High Temperature Low Sag
HUNAR	Hallmarking of Unrecognized Novice and Amature Resources
HVA	High Value Agriculture
HYV	High Yield Varieties
HWC	Health & Wellness Center
HWMF	Hazardous Waste Management Facility
IAP	Integrated Action Plan
IASE	Institute for Advance Studies in Education
IAY	Indira Awas Yojna
ICAP	Integrated Cluster Action Plan
ICAR	Indian Council of Agricultural Research
ICDS	Integrated Child Development Services

ICI	Investment Company Institute
ICPS	Integrated Child Protection Scheme
ICPS	Integrated Child Protection Service
ICT	Information & Communication Technology
IDBI	Industrial Development Bank of India
IDP	Institute Development Plan
IDPS	Immuno-Deficiency Pension Scheme
IDTR	Indo Denish Tool Room
IEC	Information, Education and Communication
IEDSS	Inclusive Education for Disabled at Secondary Stage
IFA	Iron Folic Acid
IFAD	International Fund for Agricultural Development
IGA	Income Generation Activities
IGMSY	Indira Gandhi Matritva Sahyog Yojna
IGNDPS	Indira Gandhi National Disability Pension Scheme
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IGNWPS	Indira Gandhi National Widow Pension Scheme
IGWDP	Indo German Watershed Development Programme
IHHL	Individual Household Latrines
IHSDP	Integrated Housing and Slum Development Programme
IHSDP	Integrated Housing and Slum Development Programme
IINRG	Indian Institute of Natural Resins and Gums
IIM	Indian Institute Management
IIP	Index of Industrial Production
IIPS	International Institute of Population Sciences
IIT	Indian Institute of Technology
IITF	India International Trade Fair
IKSL	IFFCO Kisan Sanchar Limited
IL&FS	Infrastructure Leasing & Finance Company
ILO	International Labour Organization
IMC	Institute Management Committee
IMD	Indian Metrological Department
IMIS	Institute of Management & Information Science
IMNCI	Integrated Management of Neonatal Childhood Illness
IMR	Infant Mortality rate
INM	Integrated Nutrients Management
IP	Intermediate Panchayat
IPDS	Integrated Power Development Scheme
IPM	Integrated Pest Management
IPHS	Indian Public Health Standards
IPT	Intermediated Public Transport

IPPP	Intensive Participatory Planning Process
IQF	Individual Quick Frozen
IRCTC	Indian Railway Catering and Tourism Corporation
IRO	Internal Resource Organization
ISBT	Inter-State Bus Terminus
ISFR	India State of Forest Survey
ISI	Information Sciences Institute
ISM	Indian Institute of Science
ISSR	In-Setu Slum Redevelopment
ISRO	Indian Space Research Organisation
IT	Information Technology
ITDA	Integrated Tribal Development Authorities
ITDP	Integrated Tribal Development Project
ITES	Information technology enabled services
ITI	Industrial Training Institute
ITI	Indian Institute of Technology
ITPO	India Trade Promotion Organisation
IUCD	Intra Uterine Contraceptive Device
IUCN	International Union For Conservation of Nature
IUD	Intrauterine device
IWMP	Integrated Watershed Management Programme
IYCF	Infant and Young Child Feeding
J.M.T.T.C	Jubilee Memorial Technical Training Centre
JAC	Jharkhand Academic Council
JAP-IT	Jharkhand Agency for Promotion of Information Technology
JARDCL	Jharkhand Accelerated Road Development Co. Ltd
JARDP	Jharkhand Accelerated Road Development Plan
JBAV	Jharkhand Balika Awasiya Vidyalaya
JBVNL	Jharkhand Bijli Vitran Nigam Limited
JCERT	Jharkhand Council for Educational Research and Training
JCL	Juvenile in conflict with law
JCNL	Jharkhand Communication Network Limited
JCRL	Jharkhand Central Railway Limited
JCST	Jharkhand Council on Science & Technology
JEPC	Jharkhand Education Project Council
JETA	Jharkhand Eco-Tourism Authority
JFM	Joint Forest Management
JFMC	Joint Forest Management Committee
JHALSA	Jharkhand State Legal Services Authority
JHARNET	Jharkhand State Information and Communication Network
JHASCOFISH	Jharkhand State Co-Operative Fisheries Federation Ltd.

JHAMFCOFED	Jharkhand State Minor Forest Produce Co-operative Development and Marketing Federation Limited
JHIMDI	Jharkhand Horticulture Intensification by Micro Drip Irrigation
JIADA	Jharkhand Industrial Area Development Authority
JICA	Japan Intensive Cooperation Agency
JICD	Jharkhand Institute of Craft and Design
JIIDCO	Jharkhand Industrial Infrastructure Development Corporation
JIGAY	Jharkhand Integrated Gram Adarsh Yojana
JIMMS	Jharkhand Integrated Mines & Minerals Management System
JINFRA	Jharkhand Infrastructure Development Corporation
JIP	Jharkhand Industrial Policy
JIIP	Jharkhand Industrial Investment Policy
JJB	Juvenile Justice Board
JJM	Jal Jeevan Mission
JLG	Joint Liability Groups
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JOHAR	Jharkhand Opportunities for Harnessing Rural Growth Project
JPRA	Jharkhand Panchayati Raj Act
JREDA	Jharkhand Renewable Energy Development Agency
JRHMS	Jharkhand Rural Health Mission Society
JSAC	Jharkhand Space Application Centre
JSCB	Jharkhand State Co-operative Bank
JSCPS	Jharkhand State Child Protection Society
JSDMS	Jharkhand Skills Development Mission Society
JSEB	Jharkhand State Electricity Board
JSFC	Jharkhand State Food and Civil Supplies Corporation
JSFDC	Jharkhand State Forest Development Corporation
JSLPS	Jharkhand State Livelihood Promotion Society
JSNM	Jharkhand State Nutrition Mission
JSRP	Jharkhand State Road Project
JSSPS	Jharkhand State Sports Promotion Society
JSTDI	Jharkhand Silk Textile Development Institute
JSWM	Jharkhand State Watershed Mission
JSWSH	Jharkhand State Water and Sanitation Mission
JTDC	Jharkhand Tourism Development Corporation
JTDEP	Jharkhand Tribal Development and Empowerment Project
JTDP	Jharkhand Tribal Development Program
JTDS	Jharkhand Tribal Development Society
JTELP	Jharkhand Tribal Empowerment & Livelihood Programme
JTET	Jharkhand Teachers Eligibility Test
JTRI	Jharkhand Tribal Research Institute

JUIDCL	Jharkhand Urban Infrastructure Development Company Limited
JUTCOL	Jharkhand Urban Transport Corporation Limited
JUPMI	Jharkhand Urban Planning and Management Institute
JUSNL	Jharkhand Urja Sancharan Nigam Limited
JUUNL	Jharkhand Urja Utpadan Nigam Ltd
JUVNL	Jharkhand Urja Vikas Nigam Ltd
JWDS	Jharkhand Woman Development Society
KCC	Kisan Credit Card
KGBV	Kasturba Gandhi Balika Vidyalaya
KDE	Kernel Density Estimator
KMS	Kharif Marketing Seasons
KM	Kilo Meter
KSY	Kishori Shakti Yojana
KVA	Kilovolt amps
KVIB	Khadi and Village Industries Board
KVIC	Khadi and Village Industries Commission
KYC	Know Your Customer
LAN	Local Area Network
LBW	Low Birth Weight
LDMs	Lead District Managers
LED	Light Emitting Diode
LFPR	Labour Force Participation Rate
LHV	Lady Health Visitor
LIC	Life Insurance Corporation
LIG	Low Income Groups
LIN	Labour Identification Number
LPCD	Litres Per Capita Per Day
LPG	Liquefied Petroleum Gas
LSAS	Life Saving Anesthetic Skill Re orientation
LT	Low Tension
LWE	Left Wing Extremism
M.B.B.S	Bachelor of Medicine, Bachelor of Surgery
MA	Modified Atmosphere
MCA	Ministry of Corporate Affairs
MCD	Minority Concentration Districts
MCM	Million Cubic Meter
MCS	Model cluster Schools
MCW	Maternity and Child Welfare Centres
MDA	Market Development Assistance
MDF	Moderately Dense Forest
MDG	Millennium Development Goals

MDI	Micro Drip Irrigation
MDM	Mid Day Meal
MDR	Major District Roads
MDS	Master of Dental Surgery
MEC	Microenterprise consultant
MECON	Metallurgical & Engineering Consultants Limited
MECs	Micro Enterprise Consultants
MESO	Micro Economic Social Organisation
MFE	Micro Food Enterprises
MFI	Micro Finance Institution
MFP	Minor Forest Produces
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MHRD	Ministry of Human Resource Development
MHUPA	Ministry of Urban Housing and Poverty Alleviation
MIG	Middle Income Groups
MIS	Management Information Systems
MKSP	Mahila Kisan Sashaktikaran Pariyojana
MKY	Mukhyamantri Kanyadan Yojna
MLLY	Mukhyamantri Ladli Laxmi Yojna
MMJSSA	Mukhya Mantri Janani Shishu Swasthya Abhiyan
MMKAY	Mukhy Mantri Krishi Aashirwad Yojana
MDRs	Major District Roads
MMDBY	Mukhya Mantri Dal Bhat Yojana
MMP	Mission Mode Projects
MMR	Maternal Mortality Ratio
MMS	Mandal Mahila Samakhya
MMU	Mobile Medical Unit
MNRE	Ministry of Natural and Renewable Energy
MoA	Memorandum of Agreement
MoAFW	Department of Agriculture and Farmers Welfare
MODIS	Moderate Resolution Imaging Spectroradiometer
MOFPI	Ministry of Food Processing Industries
MoHUA	Ministry of Housing and Urban Affairs
MOP	Muriate of Potash
MoM	Ministry of Mines
MoMA	Ministry of Minority Affairs
MoPR	Ministry of Panchayati Raj
M.P.P	Milk Pooling Points
MoRD	Ministry of Rural Development
MOSPI	Ministry of Statistics and Programme Implementation



MoU	Memorandum of Understanding
MoT	Ministry of Tourism
MoUD	Ministry of Urban Development
MoWR	Ministry of Water Resources
MPCE	Monthly Per Capita Consumption Expenditure
MPCY	Medhavi Putra/Putri Chatravriti Yojana
MPED	Masters in Physical Education
MPV	Mahila Police Volunteers
MSS	Mines Surveillance System
MSBY	Mukhyamantri Swasthya Bima Yojana
MSDP	Multi Sector Development Programme
MSE	Micro and Small Enterprises
MSK	Mahila Shakti Kendra
MSME	Micro Small and Medium Enterprises
MSY	Mukhyamantri Sharmik Yojana
M-STrIPES	Monitoring System for Tiger-Intensive Protection and Ecological Status
MT	Million Tonne
MPI	Multi-dimensional Poverty Index
MTCs	Malnutrition Treatment Centres
MTP	Medical Termination of Pregnancy
MUDRA	Micro Units Development and Refinance Agency
MVI	Motor Vehicles Inspector
MVS	Multivillage Schemes
MVY	Mukhyamantri Vidyalakshmi Yojana
MW	Megawatts
MWCD	Ministry of Women and Child Development
MWPSC	Maintenance and Welfare of Parents and Senior Citizens
MWDS	Ministry of Drinking Water and Sanitation
MYRADA	Mysore Resettlement and Development Agency
NA	Not Available
NABARD	National Bank for Agriculture and Rural Development
NABL	National Accreditation Board for Testing and Calibration Laboratories
NADMS	National Agriculture Drought Monitoring System
NAEB	National Afforestation and Eco-Development Board
NAPCC	National Action Plan for Climate Change
NAPSrC	National Action Plan for Welfare of Senior Citizens
NARI	National AIDS Research Institute
NAS	National Achievement Survey
NASA	National Aeronautics and Space Administration
NBA	National Board of Accreditation
NBC	Net Bank Credit

NBCR	National Bureau of Crime Records
NBFC	Non-Banking Financial Companies
NCC	National Cadet Corps
NCDs	Non-Communicable Diseases
NCERT	National Council of Educational Research and Training
NCLP	National Child Labour Project
NCML	National Collateral Management Service
NCS	National Career Service
NCRB	National Crime Records Bureau
NCVT	National Council for Vocational Training
NDML	National Database Management Ltd
NDRF	National Disaster Response Force
NDRGGSP	Nanaji Deshmukh Rashtriya Gaurav Sabha Puraskar
NeGP	National e-Governance Plan
NER	Net Enrolment Ratio
NESCL	NTPC Electric Supply Company
NF	Non Forest
NFBS	National Family Benefit Scheme
NFHS	National Family Health Survey
NFSA	National Food Security Act
NFSM	National Food Security Mission
NGO	Non-Government Organizations
NH	National Highways
NHAI	National Highways Authority of India
NHDP	National Highway Development Programme
NHE	National and Health Education
NHM	National Health Mission
NIA	Net Irrigated Area
NIFT	National Institute of Fashion Technology
NIRD	National Institute of Rural Development
NIOS	National Institute of Open Schooling
NIT	National Institute of Technology
NITI	National Institution for Transforming India
NMFP	National Mission on Food Processing
NMMU	Nelson Mandela Metropolitan University
NMHP	National Mental Health Programme
NMP	National Manufacturing Policy
NMPB	National Medicinal Plants Board
NMR	Neonatal Mortality Rate
NOFN	National Optical Fiber Network
NOHP	National Oral Health Programme

NPAs	Non Performing Assets
NPA	National Park Authority
NPCA	National Plan for Conservation of Aquatic Eco-systems
NPEGEL	National Program for Education of Girls at Elementary Level
NPCB	National Program for Control of Blindness
NPPCD	National Programme for Prevention and control of Deafness
NPCDCS	National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
NPJSY	Neelambar Pitamber Jal Sammridhi Yojna
NPRD	National Panchayati Raj Day
NPTA	National Plan for Technical Assistance
NPS	Non Priority Sector
NRDP	National Drinking Water Programme
NRDWP	National Rural Drinking Water Programme
NREGA	National Rural Employment Guarantee Act
NREP	National Rural Employment Programme
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NRLP	National Rural Livelihoods Project
NRM	National Resource Management
NRM	National Rurban Mission
NRO	National Resource Organizations
NRSC	National Remote Sensing Centre
NSA	Net Sown Area
NSAP	National Social Assistant Program
NSF	National Sports Federation
NSG	National Steering Group
NVA	Net Value Added
NSAP	National Social Assistance Program
NSDP	Net State Domestic Product
NSQF	National Skills Qualifications Framework
NSS	National Sample Survey
NSS	National Social Scheme
NSSF	National Small Saving Fund
NSSK	Navjat Shishu Suraksha Karyakaram
NSSO	National Sample Survey Organization
NSU	National Sports University
NSV	No-Scalpel Vasectomy
NTFP	Non Timber Forest Produce
NTPC	National Thermal Power Corporation
NTSA	National Technical Support Agency

NUHM	National Urban Health Mission
NULM	National Urban Livelihoods Mission
NWFP	Non Wood Forest Product
NWDPPRA	National Watershed Development Programme for Rain fed Areas
OBC	Other Backward Classes
ODF	Open Defecation Free
ODOP	One District One Product
OF	Open Forest
OFC	Optical Fibre Cable
OFWM	On Farm Water Management
OMMAS	Online Management Monitoring and Accounting System
O&M	Operation and Maintenance
OMR	Optical Mark Recognition
OOPME	Out of Pocket Medical Expenditure
OPS	Other Priority Sector
OPHDI	Oxford Poverty and Human Development Initiative
OSC	One Stop Centre
OSP	Office of Strategy & Planning
OTP	One Time Password
OWC	Organic Waste Converter
PE	Project Experts
PAB	Programme Approval Board
PACS	Primary Agricultural Credit Societies
PC	Project Cost
PCARDB	Primary Cooperative Agriculture and Rural Development Banks
PCC	Plain Cement Concrete
PCCF	Principal Chief Conservator of Forests
PCI	Per Capita Income
PCLDB	Primary Cooperative Land Development Banks
PDO	Public Data Office
PDS	Public Distribution System
PEAIS	Panchayat Empowerment and Accountability Incentive Scheme
PF	Protected Forests
PEG	Private Entrepreneurs Guarantee
PESA	Panchayat Extension to Scheduled Areas
PFC	Power Finance Corporation
PFP	Patanjali Food Park
PFR	Pre Feasibility Report
PFCCCL	Power Finance Corporation Consulting Limited
PGCIL	Power Grid Cooperation of India Limited
PGMS	Public Grievance Management System

PHC	Primary Health Centres
PHC	Public Health Centres
PHS	Priority Household Scheme
PHED	Public Health and Engineering Department
PHH	Priority Households
PHY	Primary Household Yojana
PIA	Program Implementing agencies
PIB	Press Information Bureau
PIM	Participatory Irrigation Management
PIU	Project Implementation Unit
PLF	Plant Load Factor
PLFS	Periodic Labour Force Survey
PMA	Preferential Market Access
PMC	Project Management Consultant
PMAGY	Prime Minister Adarsh Gram Yojana
PMAY	Pradhan Mantri Awas Yojana
PMAY-G	Pradhan Mantri Awas Yojna- Gramin
PMAY-U	Pradhan Mantri Awas Yojna- Urban
PMEGP	Prime Minister Employment Generation Programme
PMEYSA	Panchayat Mahila Evam Yuva Shakti Abhiyan
PMFBY	Pradhan Mantri Fasal Bima Yojna
PMGKAY	Pradhan Mantri Garib Kalyan Anna Yojana
PMGSY	Pradhan Mantri Gram Sadak Yojna
PMJDY	Pradhan Mantri Jan-Dhan Yojana
PMJJBY	Pradhan Mantri Jeevan Jyoti Bima Yojana
PMJJY	Pradhan Mantri Jeevan Jyoti Yojana
PMKSY	Pradhan Mantri Krishi Sichai Yojana
PMKYY	Pradhan Mantri Kaushal Vikas Yojana
PMMY	Pradhan Mantri Mudra Yojana
PMMSY	Pradhan Mantri Matsya Sampada Yojna
PMMVY	Pradhan Mantri Matru Vandana Yojana
PMRY	Prime Minister Rozgar Yogna
PMSBY	Pradhan Mantri Suraksha Beema Yojana
PMSSY	Pradhan Mantri Swasthya Suraksha Yojana
PM SVANIDHI	Pradhan Mantri Street Vender's Atma Nirbhar Nidhi
PMU	Project Management Unit
PMUY	Pradhan Mantri Ujjwala Yojana
PNB	Punjab National Bank
POERI	Power over Economic Resources
POP	Progesterone-Only Pill
POS	Point of Sale

PPC	Primary Processing Centres
PPIUCD	Post Partum Intra Uterine Contraceptive Device
PPRA	Percentage of Persons that Responded as Ailing
PPP	Public Private Partnership
PPT	Panchayat Planning Team
PRADAN	Professional Assistance for Development Action
PRASAD	Pilgrimage Rejuvenation And Spiritual Augmentation Drive
PRA	Participatory Rural Appraisal
PRC	Performance Review Committee
PRI	Panchayati Raj Institution
PSA	Priority Sector Advances
PSB	Phosphate Solubilizing Bacteria
PSE	Pre School Education
PSL	Priority Sector Lending
PSPTG	Pension Scheme for Primitive Tribal Group
PSU	Public Sector Undertaking
PTG	Primitive Tribal Groups
PTI	Panchayat Training Institution
PTP	Primitive Tribe Population
PTR	Pupil-Teacher Ratio
PTR	Palamu Tiger Reserve
PSS	Power Sub-Station
PTTC	Primary Teachers Training Colleges
PVTG	Particularly Vulnerable Tribal Groups
PVUNL	Patratu Vidyut Utpadan Nigam Limited
PWCS	Primary Weavers Cooperative Societies
PWD	Public Works Department
PWD	Persons with Disabilities
PWS	Piped Water Supply
PWSS	Piped Water Supply Scheme
PYKKA	Panchayat Yuva Krida Aur Khel Abhiyan
QA	Quality Audit
QAP	Quality Assurance Plan
QCD	Quality Control Directorate
QCI	Quality Control of India
QEH	Queen Elizabeth House
QP	Quality Policy
RA	Recruiting Agency
RAD	Rainfed Area Development
RIADA	Ranchi Industrial Area Development Authority
RAPDRP	Restructured Accelerated Power Development & Reforms Programme

RAW	Ranchi Adventure Wheelers
RAY	Rajiv Awas Yojana
RBI	Reserve Bank Of India
RCC	Reinforced Cement Concrete
RCD	Road Construction Department
RCH	Reproductive and Child Health
RCS	Regional Connectivity Schemes
RDD	Rural Development Department
RDDE	Research, development, diffusion, and evaluation
RDF	Random Decision Forest
REC	Rural Electrification Corporation
REC	Renewable Energy Corporation
REGP	Rural Employment Generation Programme
RF	Revolving Funds
RFF	Revering Fish Farming
RFA	Recorded Forest Area
RFID	Radio-Frequency Identification
RFS	Rural Franchisee Schemes
RGGVY	Rajiv Gandhi GraminVidyutikaranYojna
RGPSA	Rajiv Gandhi Panchayat Shasaktikaran Abhiyan
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
RGSA	Rasthriya Gram Swaraj Abhiyan
RGSY	Rashtriya Gram Swaraj Yojana
RIDF	Rural Infrastructure Development Fund
RIMC	Rashtriya Indian Military College
RKSK	Rashtriya Kishore Sawathya Karayakaram
RKVY	Rashtriya Krishi Vikas Yojna
RMC	Ranchi Municipal Corporation
RMNCH+A	Reproductive Maternal-Neonatal-Child and Adolescent Health
RMNCH	Reproductive Maternal-Neonatal-Child Health
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
ROB	Railway Over Bridge
RoGP	Rate of growth of Population
RoPCI	Rate of growth of PCI
RPCD	Rural Planning and Credit Department
RPL	Recognition of Prior Learning
RPWSS	Rural Piped Water Service Scheme
RPWSS	Reliance Power Wash Sales Services
RRB	Regional Rural Banks
RRP	Road Requirement Plan
RSCC	Ranchi Smart City Corporation

RSETI	Rural Self Employment Training Institutes
RSP	Retail Selling Price
RTE	Right to Education
RTGS	Real Time Gross Settlement
RUDSETI	Rural Development & Self Employment Training Institute
RUSA	Rashtriya Uchchatar Shiksha Abhiyaan
RVNL	Rail Vikas Nigam Limited
RVSPY	Rajya Vidhwa Samman Pension Yojna
RWS	Regular Wage Salaried
SAA	Specialized Adoption Agencies
SAF	South Asian Federation
SAAP	State Annual Action Plan
SAG	Scheme Adolescent Girls
SAGY	Sansad Adarsh Gram Yojana
SAIL	Steel Authority of India Limited
SAJHA	Sports Authority of Jharkhand
SANKALP	SKill Acquisition and Knowledge Awareness for Livelihood Programme
SAM	Severe and Acute Malnourished Children
SAPCC	State Action Plan on Climate Change
SARA	State Adoption Resource Agencies
SARC	Sustainable Agriculture Resource Centre
SAU	Social Audit Unit
SATH-E	Sustainable Action for Transforming Human Capital in Education
SBA	Skilled Birth Attendant
SBI	State Bank of India
SBCC	Social Behavioural Change and Communication
SBLP	SHG bank-linkage program
SBM- G	Swachh Bharat Mission (Gramin)
SBM-U	Swachh Bharat Mission (Urban)
SBSICR	Second Bihar State Irrigation Commission Report
SC	Sub Centres
SCs	Scheduled Castes
SCA	Special Central Assistance
SCARDB	State Cooperative Agriculture and Rural Development Bank
SCB	State Cooperative Banks
SCI	Systematic Crop Intensification
SCLDB	State Cooperative Land Development Bank
SCM	Smart City Mission
SCPCR	State Commission for Protection of Child Rights
SCPS	Jharkhand State Child Protection Societies
SCSP	Scheduled Caste Sub Plan



SCSP	Special Component Sub Plan
SD	Standard Deviations
SDC	SAARC Documentation Centre
SDEO	Sub Divisional Education Officer
SDG	Sustainable Development Goals
SDH	Synchronous Digital Hierarchy
SDHQs	Sub-Divisional Head Quarters
SDIS	Skill Development Initiative Scheme
SDMA	State Disaster Management Authority
SDP	School Development Plan
SDRF	State Disaster Response Fund
SDY	Salt Distribution Yojana
SECC	Socio-Economic caste Census
SECURE	Software for Estimate Calculation Using Rural Rate of Employment
SEP	Self-Employment Programme
SEZ	Special Economic Zones
SFBs	Small Finance Banks
SFC	State Finance Commission
SFURTI	Scheme of Fund for Regeneration of Traditional Industries
SFD	State Forest Department
SGDP	State Gross Domestic Product
SGST	State Goods and Service Tax
SGY	Smart Grampanchayat Yojana
SGSY	Swaranjayanti Gram Swarojgar Yojna
SH	State Highways
SHAJ	State Highway Authority of Jharkhand
SHAM	Sub-mission on Agricultural Mechanisation
SHG	Self Help Group
SHM	Soil Health Management
SHPI	Self-help Promoting Institution
SHQ	State Head Quater
SICDP	Small Industries Cluster Development Programme
SIDBI	Small Industries Development Bank of India
SIDS	Small Island Developing States
SIP	State Irrigation Plan
SIRD	State Institute of Rural Development
SITP	Scheme For Integrated Textile Parks
SJKVY	Saksham Jharkhand Kaushal Vikas Yojna

SJPU	Special Juvenile Police Units
SJSRY	Swarna Jayanti Shahari Rozgar Yojana
SKIPA	Sri Krishna Institute of Public Administration
SKO	Subsidized Kerosene Oil
SLBC	State Level Bankers Committee
SLBs	Service Level Benchmarks
SLIP	Service Level Improvement Plan
SLP	Service Level Progress
SLQAC	State Level Quality Assurance Cell
SLWM	Solid and Liquid Waste Management
SM&ID	Social Mobilisation and Institution Development
SMAE	Sub Mission on Agricultural Extension
SMAM	Sub Mission on Agricultural Mechanization
SMART	Simple Methodical Accountable Responsive Transparent
SMC	Soil & Moisture Conservation
SMC	School Management Committee
SME	Small and Medium Enterprises
SMPP	Sub Mission on Plant Protection
SMSP	Sub Mission on Seed and Planting
SMMU	State Mission Management Unit
SNP	Supplementary Nutrition Programme
SOR	State's Own Revenue
SoUL	Solar Light
SPIADA	Santhal Paragna Industrial Area Development
SPMRM	Shyama Prasad Mukherjee Rurban Mission
SPV	Solar Photo-Voltaic
SPV	Special Purpose Vehicle
SPT	Santhal Pargana Tenacy
SRB	Sex Ratio at Birth
SRC	State Resource Cell
SRCW	State Resource Centre for Women
SRI	Systematic Rice Intensification
SRLM	State Rural Livelihood Mission
SRS	Sample Registration System
SRS	Supported Residential Services
SRS	Sample Registration System
SSA	Sarva Siksha Abhiyan
SSA	Social Security Agreements

SSC	Sector Skill Council
SSC	Skill Council Courses
SSDG	State Service Delivery Gateway
SSSPS	State Social Security Pension Scheme
SSP	Single Super Phosphate
STCs	Special Training Centres
STEP	Support to Training and employment Programme for Women
STEP-UP	Skill Training for Employment Promotion amongst Urban Poor
ST	Scheduled Tribe
STP	Skill Training Providers
STPI	Software Technology Parks of India
SUH	Scheme of Shelters for Urban Homeless
SUI	Stand-Up India
SUDA	State Urban Development Agency
SUSV	Support to Urban Street Vendors
SVEP	Start-up Village Entrepreneurship Programme
SVNSPY	Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana
SWAN	State Wide Area Network
SWCs	State Warehousing Corporations
SWI	Systematic Wheat Intensification
SWM	Solid Waste Management
SWPS	State Widow Pension Scheme
SWS	Single-Window Clearance System
TB	Tuberculosis
TFC	Thirteenth Finance Commission
T&D	Transmission and Distribution
TCDC	Tribal Co-operative Development Corporation
TFR	Total Fertility Rate
TIC	Tourism Information Centre
TISS	Tata Institute of Social Sciences
THP	Targeting Hardcore Poor
THR	Take Home Ration
THV	Targeting the Hardcore Poor Scheme
TIC	Tourist Information Centres
TOF	Trees Outside Forests
TPC	Training and Production Centre
TPDS	Targeted Public Distribution System
TPS	Total Priority Sector

TSD	Time Speed Distance
TSP	Tribal Sub Plan
TT	Tetanus Toxoid
TQA	Total Quality Assurance
UAE	United Arab Emirates
UCDN	Urban Community Development Network
UD&HD	Urban Development & Housing Department
UDAY	Ujjwal Discom Assurance Yojna
U-DISE	Unified District Information System for Education
UDR	United Data Repository
UEE	Universal Elementary Education
UG	Under Ground
UHC	Universal Health Coverage
UID	Unique Identity Number
ULB	Urban Local Body
U5MR	Under-5 Mortality Rate
UN	United Nation
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
U.P	Uttar Pradesh
UPHC	Urban Primary Health Centers
UPSS	Usual Principal and Subsidiary Status
UR	Unemployment Rate
USA	United State of America
USEP	Urban Self-Employment Programme
UT	Urban Transport
UTIs	Urinary Tract Infections
UWSP	Urban Women Self-Help Programme
VAC	Village Assistance Committee
V.E	Vocational Education
VAT	Value Added Tax
VDF	Vehicle Damage Factor
VDF	Very Dense Forest
VDP	Village Development Plan
VEDC	Village Environment Development Committee
VFMP	Village Forest Management & Protection Committee

VHND	Village Health Nutrition Day
VHSNC	Village Health Sanitation & Nutrition Committee
VLE	Village Level Entrepreneurs
VLCPC	Village Level Child Protection Committee
VMC	Village Monitoring Committee
VO	Village Organization
VPN	Virtual Private Network
VRF	Vulnerability Reduction Fund
VTIP	Vocational Training Improvement Project
VRP	Village Resource Person
VSPHKVS	Veer Sahid Poto Ho Khel Vikas Scheme
VWSC	Village Water and Sanitation Committee
WAMIS	Work and Management Information Systems
WFPR	Work Force Participation Rate
WAMS	Works and Accounts Management Information System
WAR	Wild Adventure Rally
WASH	Water, Sanitation and Hygiene
WCD	Women's Child Development
WDC	Watershed Development Component
WHO	World Health Organization
WHL	Women's Helpline
WII	Wildlife Institute of India
WLL	Wireless in Local Loop
WPR	Worker Population Ratio
WPT	Ward Planning Team
WSA	Water Spread Area
WUA	Formation and involvement of Water User Association
XLRI	Xaviers Labour Relation Insititue
XISS	Xavier Institute of Social Service
YSS	Yogada Satsang

# Chapter 1

## Macro Economic Overview





The economy of Jharkhand has grown at an average annual growth-rate (CAGR) of 5.9 per cent between 2011-12 and 2018-19. It grew at an average annual rate of 7.3 per cent between 2011-12 and 2014-15 and 4.8 per cent between 2014-15 and 2018-19. The deceleration in the growth-rate in the second period (2014-15 to 2018-19) has mainly been because of an unprecedented contraction in the real GSDP of the state by 6.2 per cent in the year 2015-16. The economy, however, recovered in subsequent years. In the year 2019-20 it has been estimated to have grown by 6.7 per cent; much higher than the real GDP of the country which has been estimated to have grown by 4.2 per cent only.

The Gross State Domestic Product (GSDP) at constant (2011-12) prices (also called ‘real GSDP’) of Jharkhand was Rs. 1,50,918 crores in the year 2011-12. It grew at an average annual rate (CAGR) of 7.3 per cent per annum to become Rs. 1,86,534 crores in the year 2014-15. Between the year 2014-15 and 2018-19, the real GSDP

of the state grew at an average annual rate of 4.8 per cent per annum only, to become to Rs. 2,24,986 crores in the year 2018-19 (P). It was estimated to have grown to Rs. 2,40,036 crores in the financial year 2019-20 (Pr).

The per capita income (per capita NSDP) of Jharkhand was Rs. 41,254 in the year 2011-12. It grew at an average annual rate of 11.6 per cent at current prices and 5.7 per cent at constant prices between 2011-12 and 2014-15. In the year 2014-15, the per capita income of the state was Rs. 57,301 at current prices and Rs. 48,781 at constant prices. Between 2014-15 and 2018-19, the per capita income of the state grew at 3 per cent at constant prices and 5.9 per cent at current prices. Thus, the per capita income of the state, in the year 2018-19 was Rs. 54,982 at constant prices and 73,155 at current prices. In the year 2019-20, it was estimated to have been Rs. 57,863 at constant prices and Rs. 79,873 at current prices; recording a growth of 5.2 per cent and 9.2 per cent respectively, in comparison to the previous year.

**Table 1.1: GSDP Per-Capita Income and their Growth-Rates at Current and Constant Prices**

Year	GSDP in ₹ Crore		GSDP growth-rate		Per Capita Income (NSDP) in ₹		Growth in Per Capita Income	
	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices
2011-12	150918	150918			41254	41254		
2012-13	163250	174724	8.2	15.8	44176	47360	7.1	14.8
2013-14	165816	188567	1.6	7.9	43779	50006	-0.9	5.6
2014-15	186534	218525	12.5	15.9	48781	57301	11.4	14.6
2015-16	174881	206613	-6.2	-5.5	44524	52754	-8.7	-7.9
2016-17	193174	236250	10.5	14.3	48826	60018	9.7	13.8
2017-18	210587	269816	9.0	14.2	52277	67484	7.1	12.4
2018-19 (P.)	224986	297204	6.8	10.2	54982	73155	5.17	8.4
2019-20 (Pr.)	240036	328598	6.7	10.6	57863	79873	5.24	9.2
CAGR between 2011-12 and 2014-15	7.3	13.1			5.7	11.6		
CAGR between 2014-15 and 2018-19	4.8	8.0			3.0	5.9		

(P-Provisional, Pr. -Projection)

Source: DES, GoJ

### GSDP of Jharkhand in 2020-21 and 2021-22

The COVID-19 pandemic has caused disruption in the national and the state economy. Because of the pandemic, the ensuing lockdown and the fear and restrictions caused it, the Gross Domestic Product of the country and its states

contracted sharply in the first two quarters of the current financial year (2020-21). The sign of recovery, however, has become visible since October, 2020. The recovery is expected to take a V shape in the coming quarters. By the end of the next financial year the GDP/GSDP of the



country and its states will more than compensate for the loss incurred due to the pandemic. The agricultural sector has been performing well. Sectors such as auto and capital goods which were hit hard during the lockdown, are expecting a turnaround in their earnings. The other sectors have also shown improvement in their production and earning. The consumption of electricity and petroleum is surging towards normalcy. So, though the growth of GDP/GSDP is expected to contract in the current financial year (2020-21), it will show rapid improvement in the next financial year. Nonetheless these two years are not normal years; consequently the forecast of their GDP/GSDP cannot be done on the basis of historical data.

### Methodology

The sector and activity-wise GSDP of Jharkhand for the period 2011-12 to 2019-20 was released by the Ministry of Statistics and Programme Implementation (MoSPI) on 31<sup>st</sup> July, 2020. While the values of the real and nominal GSDP of the state, released by the MoSPI, are final till the year 2016-17, that of the year 2018-19 is provisional and of the year 2019-20 is projected, based on the historic trend-analysis. The provisional GSDP will be finalized next year and the projected GSDP in two years' time.

The income of the state, however, cannot be projected through a similar historic trend analysis for this year (2020-21) or for the following year (2021-22). They,

therefore, have been derived from the GDP forecasts of the country of these two years. The real GSDP of the state has been derived from the real GDP of the country. For calculating nominal GSDP of the state, the nominal GDP of the country has first been calculated and then from there the nominal GSDP of the state has been calculated.

The nominal GDP of the country has been predicted by multiplying predicted values of the real GDP with the expected GDP deflator of the respective quarters. The average of the 'CPI Combined (General)' and 'WPI all commodities' has been used as an estimate of the GDP deflator.

### GSDP forecast of Jharkhand

In accordance with the aforementioned methodology the real and the nominal GSDP of the state have been calculated and given in the table below (Table No. 1.2). The real GSDP (GSDP at the constant prices) is expected to contract by 6.9 per cent and the nominal GSDP (GSDP at the current prices) is expected to contract by 3.2 per cent in the current financial year (2020-21). They are expected to recover in the next financial year. The real GSDP of the state is expected to record a growth of 9.5 per cent and the nominal GSDP of 13.6 per cent in the financial year 2021-22 over the GSDP of 2020-21. However, between the years 2019-20 and 2021-22, the annual growth rates would be only 1 per cent and 4.9 per cent, respectively, for nominal and real GSDP.

**Table 1.2: GSDP and GSDP forecast of Jharkhand**

	Forecast			
	2018-19 (P.)	2019-20 (Pr.)	2020-21	2021-22
GSDP at Constant Prices	224986	240036	223566	244805
Growth Rate	6.8	6.7	-6.9	9.5
GSDP at Current Prices	297204	328598	318117	361381
Growth Rate	10.2	10.6	-3.2	13.6

### India and Jharkhand

Jharkhand is one of the low income states of the country. There is a great disproportion in the share of the state in terms of area, population and the income of the country. While, the geographical area of the state is 2.4 per cent of that of the country (2.5 per cent if we leave the areas occupied by Pakistan and China) and about 2.7 per cent of the population of the country lives in the state, its GSDP constitutes of only about 1.6 per cent of the GDP of the country<sup>1</sup>.

<sup>1</sup> The total geographical area of the state is 79714

The economic opportunities in the state depend to a large extent on the condition of the economy of the country. The prosperity in the country bestows economic bounties to the state too and a slowdown in the national economy brings recession in it. The GSDP of the state, as a result, is highly correlated with that of the country. The correlation coefficient of the GSDP of the state and

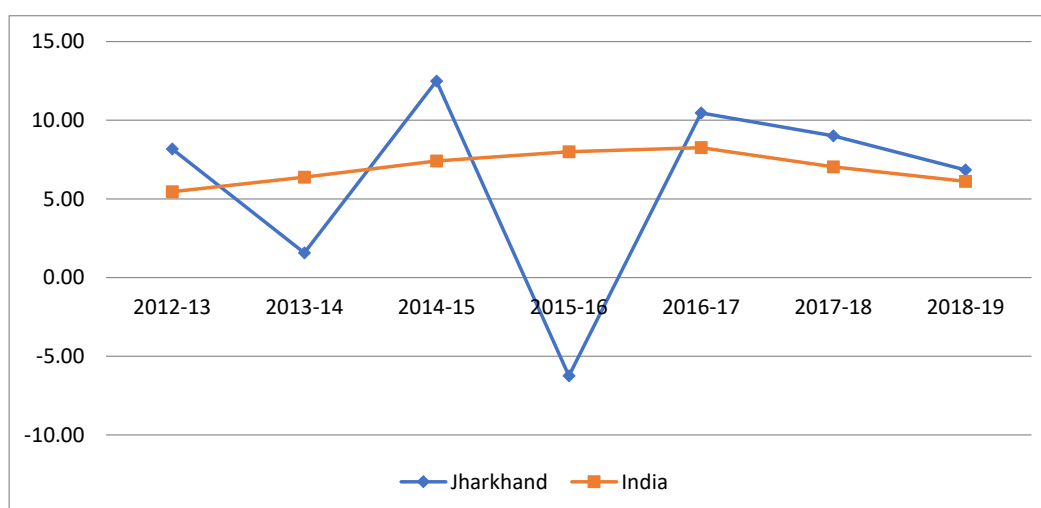
square kilo-meters (7.79 million hectares) while that of the country is 3,287,240 sq.km. This includes 120,849 sq. km. of area under the illegal occupation of Pakistan and China. The projected population of the country in the year 2019-20 is 1533996655 and that of Jharkhand is 41483241.

the GDP of the country between the years 2011-12 and 2017-18 is 0.94 when measured at current prices and 0.97 when measured at current prices. Despite this, the growth-rate of the state has been different from that of the country. Between 2011-12 and 2014-15, the average growth-rate of the state was marginally better than that of the country. In this period, while the country grew at an average annual rate of 6.4 per cent per annum, the state grew at the rate of 7.3 per cent. As a result, the share of the GSDP of the state in the GDP of the country improved, though only marginally. In the year 2011-12, the GSDP of the state was 1.73 per cent of the GDP of the country while in 2014-15, it was 1.77 per cent. Between 2014-15 and 2018-19, on the other hand, the average growth-rate of the state has remained less than that of the country. While the country grew at an average annual rate of 7.4 per cent per annum, the

average growth-rate of the state was only 6 per cent in this period. As a result, the share of the GSDP of the state in the GDP of the country decreased from 1.77 per cent in the year 2014-15 to 1.60 per cent in 2017-18 and 1.61 per cent in 2018-19 (P).

The growth-rate of the state has shown a very high variability in comparison to that of the country. While the growth-rate of the state has varied between - 6.2 (minus 6.2) per cent and 12.5 per cent, that of the country has varied between 5.5 per cent and 8.3 per cent in the period of 2011-12 and 2018-19. The standard deviation of the growth-rate of Jharkhand is 6.4 while that of the country is only 1.0 during period. This is also clear from the graph below. While the curve showing the growth-rate of the country is a smooth one that showing the growth of the state shows high fluctuations.

**Figure 1.1: Growth-Rate of India and Jharkhand at Constant Prices**



**Table 1.3: GSDP of Jharkhand in comparison with GDP and Per Capita Income (PCI) of India**

Year	GDP of India ₹ Crore		GSDP of Jharkhand as a % of GDP of India		Growth-rate of GDP of India		PCI of India		PCI of Jharkhand as a % of PCI of India	
	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices
2011-12	8736329	8736329	1.73	1.73			63462	63462	65.01	65.01
2012-13	9213017	9944013	1.77	1.76	5.5	13.8	65538	70983	67.41	66.72
2013-14	9801370	11233522	1.69	1.68	6.4	13.0	68572	79118	63.84	63.20
2014-15	10527674	12467959	1.77	1.75	7.4	11.0	72805	86647	67.00	66.13
2015-16	11369493	13771874	1.54	1.50	8.0	10.5	77659	94797	57.33	55.65
2016-17	12308193	15391669	1.57	1.53	8.3	11.8	83003	103870	58.82	57.78
2017-18 (2 <sup>nd</sup> RE)	13175160	17098304	1.60	1.58	7.0	11.1	87828	115293	59.52	58.53

Year	GDP of India ₹ Crore		GSDP of Jharkhand as a % of GDP of India		Growth-rate of GDP of India		PCI of India		PCI of Jharkhand as a % of PCI of India	
	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices
2018-19 (1 <sup>st</sup> RE)	13981426	18971237	1.61	1.57	6.1	11.0	92085	126521	59.71	57.82
2019-20 (PE)	14565951	20339849	1.65	1.62	4.2	7.2	94954	134226	60.94	59.51
CAGR between 2011-12 and 2014-15	6.4	12.6					4.7	10.9		
CAGR between 2014-15 and 2018-19	7.4	11.1					6.0	9.9		

Source: Ministry of Statistics and Programme Implementation (<http://mospi.nic.in/data>)

### Inter-State Comparison of Per Capita Income and Growth-rate

The per capita income of Jharkhand is one of the lowest in the country. Out of the 29 states of the country<sup>2</sup>, it ranked 24<sup>th</sup> in the year 2011-12. The per capita income of only five state i.e. Assam, Bihar, Madhya Pradesh, Manipur and Uttar Pradesh was less than that of Jharkhand in the year 2011-12. It maintained its relative position till

the year 2014-15, but it has deteriorated since then. It occupied 27<sup>th</sup> position in the year 2015-16 and remained only ahead of Uttar Pradesh and Bihar. In the year 2018-19 it stood 26<sup>th</sup> among the 29 states of the country, ahead of only Manipur, Uttar Pradesh and Bihar.

**Table 1.4: The Ranking of the states in terms of their Per Capita Income (PCI) at current prices**

	State\UT	2011-12		2014-15		2015-16		2018-19 (P)	
		PCI	Rank	PCI	Rank	PCI	Rank	PCI	Rank
1	Andhra Pradesh	69000	14	79174	15	88609	14	107241	14
2	Arunachal Pradesh	73068	13	87973	13	85020	15	93191	15
3	Assam	41142	25	44809	25	50642	24	60695	24
4	Bihar	21750	29	23223	29	24064	29	28668	29
5	Chhattisgarh	55177	18	61122	18	61515	18	69500	20
6	Goa	259444	1	241081	1	278601	1	368685	1
7	Gujarat	87481	11	111370	7	120683	6	153495	5
8	Haryana	106085	3	125032	3	137818	3	169409	3
9	Himachal Pradesh	87721	10	105241	10	112723	10	139469	11
10	Jammu and Kashmir	53173	19	50724	23	59967	20	65178	22
<b>11</b>	<b>Jharkhand</b>	<b>41254</b>	<b>24</b>	<b>48781</b>	<b>24</b>	<b>44524</b>	<b>27</b>	<b>54982</b>	<b>26</b>
12	Karnataka	90263	9	105697	9	116813	8	153276	6

<sup>2</sup> Before the bifurcation of the state of Jammu Kashmir into two union territories on 31<sup>st</sup> October, 2019, there were 29 states in the country.

	State\UT	2011-12		2014-15		2015-16		2018-19 (P)	
		PCI	Rank	PCI	Rank	PCI	Rank	PCI	Rank
13	Kerala	97912	6	112444	6	120387	7	148078	7
14	Madhya Pradesh	38497	27	44027	27	47351	25	56498	25
15	Maharashtra	99597	5	115058	5	122889	5	147450	8
16	Manipur	39762	26	44101	26	46389	26	51180	27
17	Meghalaya	60013	15	55880	20	56039	23	62458	23
18	Mizoram	57654	16	85056	14	91845	13	107853	13
19	Nagaland	53010	20	60372	19	60663	19	73276	19
20	Odisha	48499	22	55123	21	58838	21	76417	18
21	Punjab	85577	12	95807	12	100141	12	115882	12
22	Rajasthan	57192	17	64496	16	68565	16	78570	17
23	Sikkim	158667	2	180675	2	195066	2	242002	2
24	Tamil Nadu	93112	7	107117	8	115875	9	142941	10
25	Telangana	91121	8	101424	11	112267	11	143618	9
26	Tripura	47155	23	63992	17	61612	17	82632	16
27	Uttar Pradesh	32002	28	34583	28	36973	28	44421	28
28	Uttarakhand	100305	4	118788	4	126952	4	155151	4
29	West Bengal	51543	21	54520	22	57255	22	67300	21

Source: Ministry of Statistics and Programme Implementation (<http://mospi.nic.in/data>)

Figure 1.2: Per Capita Income of the States in 2011-12

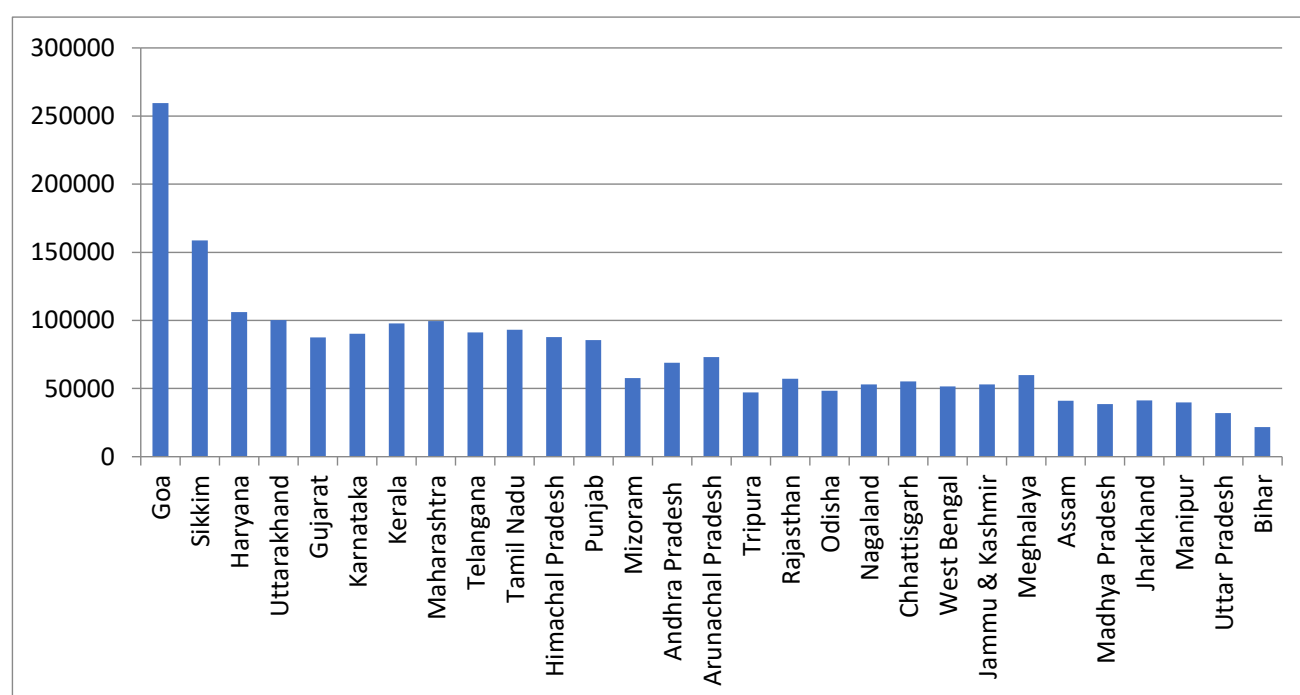
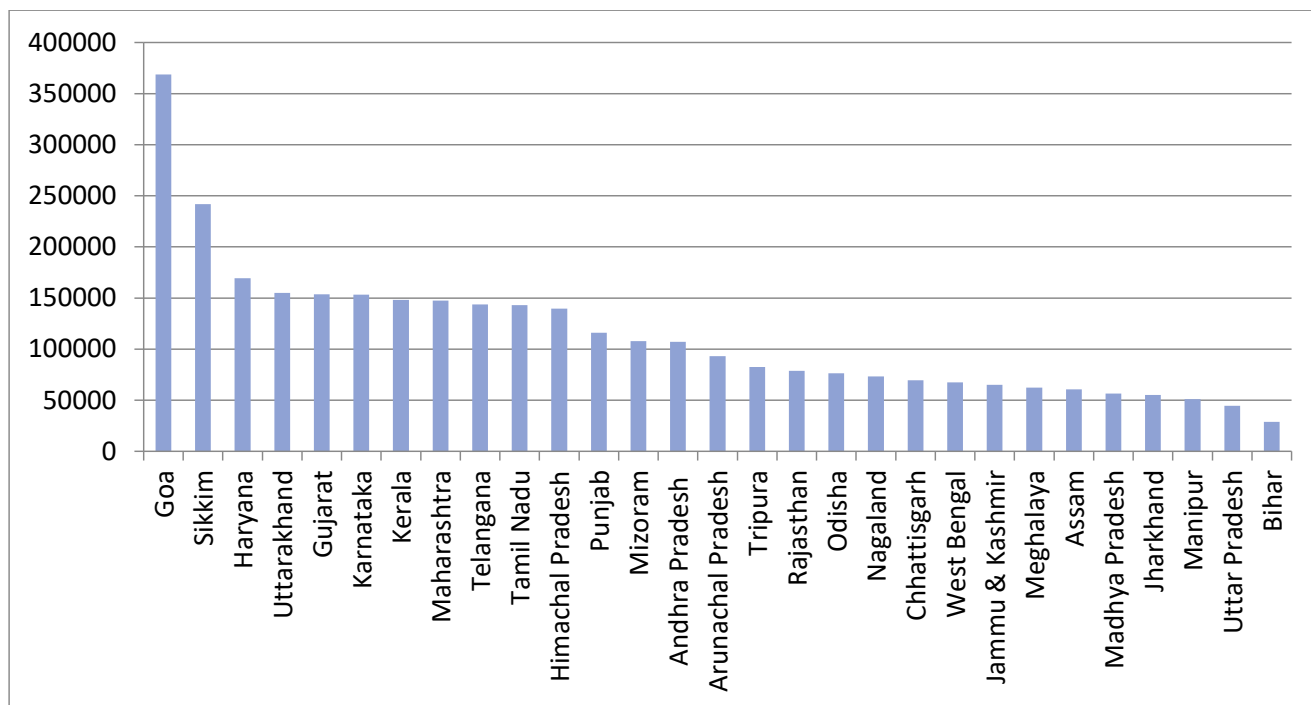


Figure 1.3: Per Capita Income of the States in 2018-19



**A Decomposition of Jharkhand’s Growth Rate**

**Sectoral Variations in Growth-Rate:** Among the three major sectors (the primary, the secondary and the tertiary) of the state’s economy, the tertiary sector has grown at the fastest rate in the year 2019-20. While the primary sector has been estimated to grow at the rate of 2.2 per cent and the secondary sector at the rate of 4.9 per cent, the tertiary sector has been estimated to have grown at the rate of 7.9 per cent in the year 2019-20. Within the tertiary sector, the ‘Air Transport’ has recorded the fastest growth. It has grown at the rate of 31.7 per cent. ‘Trade and Repair Services’ is another sub-sector of the tertiary sector which has recorded an impressive growth. It has grown at the rate of 12.1 per cent in the year 2019-20. Barring a few, like ‘Storage’ and ‘Public Administration’, most of the sub-sectors of the tertiary sector have performed very well. Within the tertiary sector, the sub-sectors like ‘Hotels and Restaurants’, ‘Communication and Services Related to Broadcasting’ and ‘Real Estate, Ownership of Dwelling and Professional Services’ have grown by more than 8 per cent this year.

Though all the three sub-sectors of the secondary sector have recorded modest growth, the growth-rates of ‘Construction’ and ‘Electricity, Gas, Water Supply and Other Utilities’ have been relatively low. The construction sector is estimated to have grown by 3.2 per cent and the electricity, gas, water supply and other

utilities’ sub-sectors have grown by 3.5 per cent in the year 2019-20.

Within the primary sector, the mining and quarrying sub-sector is estimated to have grown by 1.8 per cent and the ‘Agriculture, Forestry and Fishing’ sub-sector by about 2.5 per cent. Within the ‘Agriculture, Forestry and Fishing’ sub sector, Fishing has grown by 12.4 per cent and forestry and logging by 5.3 per cent. Fishing, though not a major constituent of this sector has recorded an impressive growth in the last several years. In the last nine years i.e. between 2011-12 and 2019-20 it has grown at an average annual rate of 12.4 per cent.

**Sectoral Contribution to Growth-Rate:** The tertiary sector has been the major contributor to the state’s growth-rate<sup>3</sup>. It has contributed 62.5 per cent to the growth of the state’s economy in the year 2019-20. The primary and secondary sectors have made a contribution of approximately 9 and 29 per cent, respectively.

Within the tertiary sector, the three sub-sectors – ‘Trade, Repair, Hotels and Restaurants’, ‘Real Estate, Ownership of Dwelling and Professional Services’ and ‘Transport, Storage, Communication and Services Related to

<sup>3</sup> Contribution of a sector to the growth-rate of the state’s economy is the growth-rate of the sector weighted by the sector’s share in GSVA. It is calculated by dividing the absolute change in the value of output created by a sector/ sub-sector by absolute change in the overall GSVA of the state.

Broadcasting', have made major contributions to the growth of the state's economy. Their contributions to the state's growth-rate have been about 27, 14 and 9 per cent respectively. Thus about 50 per cent contribution to the growth of GSDP in the state has been made by these three sub-sectors. The reason for their high contribution to the growth-rate of the economy is their good performance coupled with their large share in the economy. In the current financial year, the share of 'trade, repair, hotels and restaurants' sub-sector in the GSVA of the state is

13.5 per cent and it has grown at the rate of about 12 per cent. The share of 'real estate, ownership of dwelling and professional services' is 9.8 per cent and it has grown at the rate of 8.1 per cent and the share of 'transport, storage, communication and services related to broadcasting' is 7.7 per cent which has grown at the rate of 6.6 per cent. The contribution of the 'Air Transport', the fastest growing sub-sector of the economy, is negligible. It is 0.3 per cent only because its share in the GSVA of the state is very low, 0.1 per cent only.

**Table 1.5: Sectoral Growth-Rate in 2019-20 Pr. (on Y-o-Y) at current and constant prices.**

S. No.	Year/ Sectors and sub-sectors	2019-20(Pr.)	
		Constant prices	Current Prices
<b>1.</b>	<b>Agriculture, Forestry and Fishing</b>	2.5	11.3
1.1	Crop	-0.2	8.0
1.2	Livestock	3.8	14.1
1.3	Forestry and logging	5.3	12.2
1.4	Fishing	12.4	24.9
<b>2.</b>	<b>Mining and Quarrying</b>	1.8	3.6
<b>I.</b>	<b>Primary (1+2)</b>	2.2	8.9
3.	Manufacturing	5.8	8.5
4.	Electricity, Gas, Water supply and Other Utilities	3.5	9.8
5.	Construction	3.2	6.5
<b>II.</b>	<b>Secondary (3+4+5)</b>	4.9	8.0
<b>III.</b>	<b>Industry (2+II)</b>	4.3	7.1
6.	Trade, Repair, Hotels and Restaurants	11.9	15.7
6.1	Trade and Repair Services	12.1	15.9
6.2	Hotels and Restaurants	8.5	12.2
7.	Transport, Storage and Communication	6.6	10.6
7.1	Railways	5.0	9.6
7.2	Road transport	6.2	9.8
7.3	Air transport	31.7	34.9
7.4	Services incidental to transport	5.3	7.8
7.5	Storage	-1.9	1.4
7.6	Communication and services related to Broadcasting	8.7	12.8
8.	Financial services	6.4	9.8
9.	Real estate, ownership of dwelling and professional services	8.1	12.2
10.	Public administration	5.5	11.3
11.	Other services	3.0	9.0
<b>IV.</b>	<b>Tertiary (6+7+8+9+10+11)</b>	7.9	12.2
12.	<b>GSVA</b>	5.6	10.1
<b>13.</b>	<b>GSDP</b>	6.7	10.6

Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

The output of the 'Agriculture, Forestry and Fishing sector' constitutes 12.6 per cent of the GSVA of the state, but its contribution to the state's growth-rate is disproportionately low - only about 6 per cent. This is because of negative growth in crop production, a major constituent of this sector, and a very low growth in livestock production. The 'crop production' which constitutes about 6 per cent of the GSVA of the state, contracted by 0.2 per cent and the livestock sector which constitutes 3.1 per cent of the GSVA of the state, is estimated to have grown by about 3.8 per cent in the financial year 2019-20. Though the value of output of 'fishing and aquaculture' has grown by 12.4 per cent in the financial year 2019-20, its contribution to the growth-rate of the economy is a mere 1.4 per cent. This is because of its extremely low share (0.7 per cent) in the GSVA of the state. The 'Forestry and Logging' sub-sector has recorded a growth of about 5.3 per cent and contributed 2.4 per cent to the growth of the state's economy. The output of this sector constitutes 2.6 per

cent of the GSVA of the state.

The contribution of industry (comprising of 'mining and quarrying' and 'secondary sector') to the growth-rate of the state has been about 32 per cent. Within this sector manufacturing has been the major contributor to the growth-rate of the state, contributing about 23 per cent to the growth of the state's economy. The 'Electricity, Gas, Water Supply and Other Utility Services'- sub-sector of this secondary sector, because of its negligible share in the GSVA of the state and low growth, has made a negligible contribution to the growth of the economy. Its contribution to the growth-rate is a mere 1 per cent. The share of 'Construction' in the total GSVA of the state is 8.8 per cent but it has made a contribution of only 5 per cent to the growth of the state's economy. This is because of a slow growth experienced by it. In the financial year 2019-20 it is estimated to have grown by 3.2 per cent only.

**Table 1.6: Sectoral Contribution to Growth-Rate and their Share in GSVA at Constant Prices in the year 2019-20**

S. No.	Item	Contribution to Growth-Rate	Share in GSVA
<b>1.</b>	<b>Agriculture, Forestry and Fishing</b>	5.7	12.6
1.1	Crops	-0.3	6.3
1.2	Livestock	2.1	3.1
1.3	Forestry and Logging	2.4	2.6
1.4	Fishing and Aquaculture	1.4	0.7
<b>2.</b>	<b>Mining and Quarrying</b>	2.9	8.9
<b>I.</b>	<b>Primary (1+2)</b>	8.6	21.5
3.	Manufacturing	22.9	22.5
4.	Electricity, Gas, Water Supply and Other Utility Services	1.0	1.5
5.	Construction	5.0	8.8
<b>II.</b>	<b>Secondary (3+4+5)</b>	28.9	32.8
<b>III.</b>	<b>Industry (2+II)</b>	31.8	41.7
6.	Trade, Repair, Hotels and Restaurants	26.8	13.5
6.1	Trade and Repair Services	25.7	12.7
6.2	Hotels and Restaurants	1.2	0.8
7.	Transport, Storage, Communication and Services Related to Broadcasting	8.9	7.7
7.1	Railways	1.9	2.1
7.2	Road Transport	3.9	3.5
7.3	Air Transport	0.3	0.1
7.4	Services Incidental to Transport	0.2	0.2
7.5	Storage	0.0	0.0

S. No.	Item	Contribution to Growth-Rate	Share in GSVA
7.6	Communication and Services Related to Broadcasting	2.7	1.8
8.	Financial Services	3.6	3.2
9.	Real Estate, Ownership of Dwelling and Professional Services	13.6	9.8
10.	Public Administration	7.1	7.2
11.	Other Services	2.4	4.4
<b>IV.</b>	<b>Tertiary (6+7+8+9+10+11)</b>	<b>62.5</b>	<b>45.8</b>
12.	TOTAL GSVA at basic prices	100.0	100.0

Source: Calculated by the author from the data procured from MoSPI, GoI and Directorate of Economics and Statistics (DES), GoJ

### Sectoral Shares in GSVA

Between 2011-12 and 2019-20 the share of the tertiary sector, in the GSVA of the state has increased while that of the other sectors has declined. The shares of ‘agriculture, forestry and fishing’, ‘secondary’ and ‘service/tertiary’ sectors in GSVA of the state in the year 2011-12 were 16.1 per cent, 33.8 per cent and 38.5 per cent, respectively. In the financial year 2019-20 the share of agriculture in the GSVA is estimated to be 12.6 per cent while that of ‘secondary sector’ and services is estimated to be 32.8 per cent and 45.8 per cent respectively.

The share of ‘industry’, which is a combination of the secondary sector and mining and quarrying, has decreased from 45.4 per cent in the year 2011-12 to 41.7 per cent in the year 2019-20.

The changes in the sectoral shares have taken place because of a relatively slow growth in the ‘agriculture, forestry and fishing’, secondary and ‘mining and quarrying’ sectors and a relatively high growth in the service sector. In the period 2011-12 and 2019-20, while the ‘agriculture, forestry and fishing’, sector grew at an average annual rate (CAGR) of 2.1 per cent, the secondary sector by 2 per cent and the ‘mining and quarrying’ sector by 1.8 per cent, the service sector grew at the rate of 7.6 per cent. The industrial sector, which is a combination of the secondary sector and mining and quarrying sector, grew at an average annual rate of 4.2 per cent. As a result, its share in the GSVA of the economy has decreased from 45.4 per cent in the year 2011-12 to 41.7 per cent in the year 2019-20.

Decrease in the share of the agricultural sector with the growth of the economy is a universal phenomenon. This happens because of both the technological limitations of the agricultural sector and the change in the composition of demand with the increase in income. On the technological front, the law of diminishing returns applies much earlier and in a more intense form in the agricultural sector than in the other sectors causing a slow-down in the rate of growth in this sector. On the demand side, as per Engel’s Law<sup>4</sup>, the demand for manufactured products and services increases at a much faster rate than the demand for agricultural products as a response to which the output of the agricultural sector increases at a much slower rate than the other two sectors.

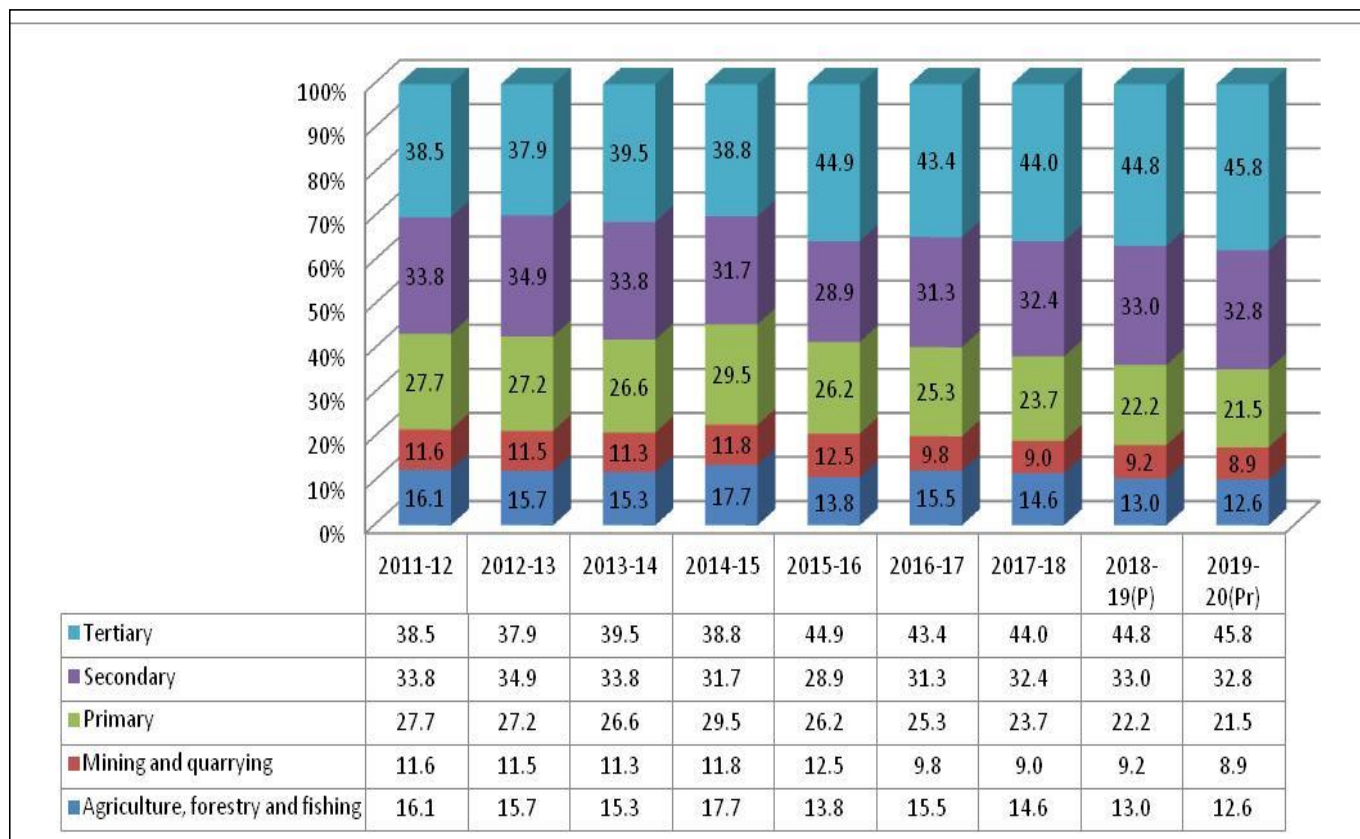
However, in Jharkhand, the decrease in the share of the agricultural sector is not only because of its technological and economic limitations. It is also because of less than the optimal performance of this sector. There is ample scope for improvement in the performance of this sector through the expansion of the area under cultivation, increase in the area under irrigation and augmentation in the adoption of improved and appropriate technology.

Industry, though, has grown at a faster rate than the agricultural sector, still has scope for improvement in its performance in the years to come. The growing dominance of the service/tertiary sector, however, is an all-India phenomenon and Jharkhand is not an exception to it.

<sup>4</sup> Engel’s law is an observation in economics stating that as the income rises, the proportion of income spent on food falls.



Figure 1.4: Share of the major sectors in the GSVA of the state



Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

### Agriculture, Forestry and Fishing Sector

Crop production is the most important sub-sector of the ‘Agriculture, Forestry and Fishing’ sector. Despite being mostly rain-fed and dependent on the vagaries of monsoon, because of which its production has been affected adversely during the years of bad monsoon, its contribution to the total value of output of the ‘Agriculture, Forestry and Fishing’ sector has mostly remained more than 50 per cent. The value of its output constituted about 60 per cent of the value of output of Agriculture, Forestry and Fishing’ sector in the year 2011-12, 54.4 per cent in the year 2016-17 and 57.1 per cent in the year 2017-18. Due to its decline in its growth-rate, share of this sub sector in the value of output of the ‘Agriculture, Forestry and Fishing’ sector has declined in the last two years. The Gross Value Added (GVA) of this sector has declined by 15.7 per cent in the year 2018-19 and 0.2 per cent in the year 2019-20. As a result, the share of this sector in the gross value added of ‘Agriculture, Forestry and Fishing’ has declined to 51.1 per cent in the year 2018-19 and 49.8 per cent in the year 2019-20 respectively.

The share of the value of the output of livestock to the total output of the ‘Agriculture, Forestry and Fishing’ sector declined from about 21 per cent in 2011-12 to about 19 per cent in the year 2017-18. It has improved its share in this sector in the last two years. In the years 2018-19 and 2019-20, its share in the GVA of the ‘Agriculture, Forestry and Fishing’ sector has increased to about 24 per cent.

The share of fishing has increased steadily in the last one decade from 2.5 per cent in the year 2011-12 to 5.4 per cent in the year 2019-20. This has happened because of steady growth recorded in it since 2011-12. The share of forestry and logging has also recorded an increase from about 16 per cent in the year 2011-12 to about 20 per cent in the year 2019-20.

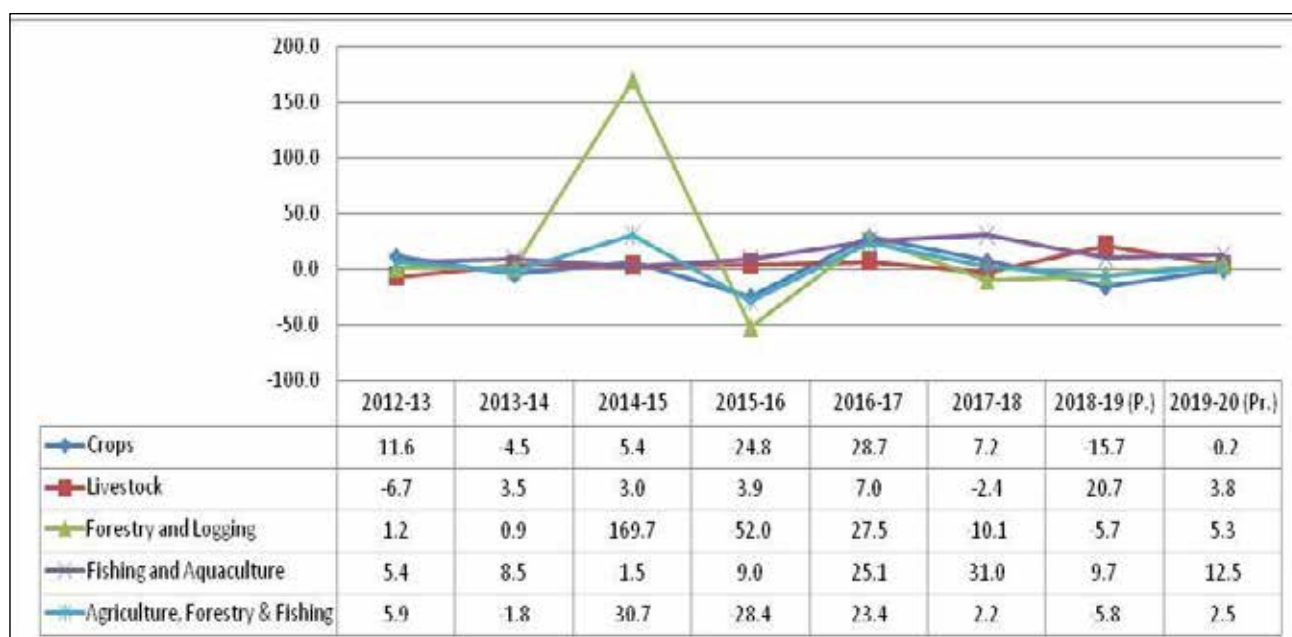
The growth-rate of ‘Agriculture, Forestry and Fishing’ sector has not only been very low but has also remained highly variable. Between 2011-12 and 2019-20, it grew at an average annual rate (CAGR) of 2.1 per cent only. The gross value added (GVA) of this sector, in the last nine years, has varied between Rs.21,717 crores in the

year 2015-16 and Rs. 30,332 crores in the year 2014-15. The co-efficient of variation of the GVA of this sector has been 11 per cent.

The low growth in the ‘Agriculture, Forestry and Fishing’ sector has been mainly because of the low growth-rate of the crop sector which, as mentioned above, mostly constituted more than the half of the value of the output of this sector. The GVA of this sector contracted at an average annual rate of ( minus) -0.2 per cent.

‘Forestry and Logging’ and ‘Fishing’ sub-sectors of the ‘Agriculture, Forestry and Fishing’ sector showed the greatest variation in the value of its output between the years 2011-12 and 2019-20. The co-efficient of variation in the value of output of the former has been 36.9 per cent while that of the latter has been 37.4 per cent. They recorded an average annual growth of 5.3 per cent and 12.5 per cent, respectively for the years 2011-12 and 2019-20.

**Figure 1.5: Growth-Rate of Agriculture and its Sub-Sectors**



**Table 1.7: Value of the Output of ‘Agriculture, Forestry and Fishing’ sector and its Constituents**

₹ Crores)

Item	2011-12	2016-17	2017-18	2018-19 (P)	2019-20 (Pr.)	CAGR	CV
Crops	13421	14594	15643	13192	13160	-0.2	9.5
Livestock	4776	5281	5155	6221	6460	3.8	13.6
Forestry and Logging	3576	6036	5428	5119	5388	5.3	36.9
Fishing and Aquaculture	563	891	1167	1280	1440	12.5	37.4
<b>Agriculture, Forestry and Fishing</b>	<b>22335</b>	<b>26803</b>	<b>27394</b>	<b>25813</b>	<b>26448</b>	<b>2.1</b>	<b>11.0</b>

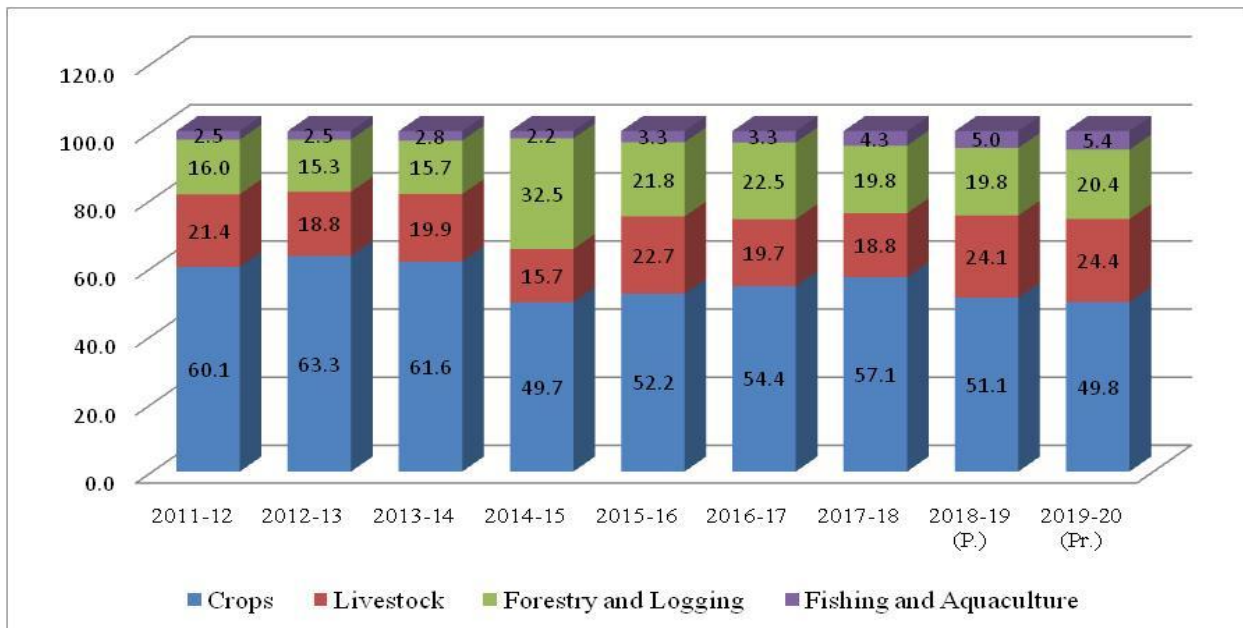
Source: Department of Economics and Statistics, GoJ.

**Table 1.8: Share of the Constituents in the Output of ‘Agriculture, Forestry and Fishing’ Sector its Constituents (in %)**

Item	2011-12	2016-17	2017-18(P.)	2018-19 (Pr.)	2019-20 (Pr.)
Crops	60.1	54.4	57.1	51.1	49.8

Item	2011-12	2016-17	2017-18(P.)	2018-19 (Pr.)	2019-20 (Pr.)
Livestock	21.4	19.7	18.8	24.1	24.4
Forestry and Logging	16.0	22.5	19.8	19.8	20.4
Fishing and Aquaculture	2.5	3.3	4.3	5.0	5.4
<b>Agriculture, Forestry and Fishing</b>	100.0	100.0	100.0	100.0	100.0

**Figure 1.6: Share of the Value of Output of the Constituents of Agriculture, Forestry and Fishing Sector in its total Output**



Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

### Industry

Manufacturing is the most important sub-sector of the industrial sector. The value of output of this sub-sector constitutes more than 50 per cent of the total value of output (GVA) of the industrial sector. Its share in the GVA of the industrial sector has increased from 47.7 per cent in the year 2011-12 to 53.9 per cent in the year 2019-20.

The ‘mining and quarrying’ and the ‘construction’ sub sectors are the other most important sub-sectors of the industrial sector. The share of ‘Mining and Quarrying’ sub-sector in the GVA of the industrial sector was 25.6 per cent in the year 2011-12. It declined to 23.8 per cent in the year 2016-17 and has remained almost stable at about 21 per cent in the last three years. The value of the output of the ‘construction’ sub sector was 22.8 per cent of the gross value added (GVA) of the industrial sector in the year 2011-12. Its share in the value of output of this sector in the GVA of the industrial sector has remained almost stable over the years. For the last three years it

has remained approximately equal to 21 per cent of the GVA of the industrial sector.

In terms of the value of output, the ‘Electricity, Gas, Water Supply and Other Utility Services’ is an insignificant constituent of the industrial sector. This sub-sector contributes only 3.6 per cent of the value of output of the Industrial sector. The share of this sub-sector has remained almost stable in the last 9 years. It constituted about 3.8 per cent of the GVA of the industrial sector in the year 2011-12 and 3.6 per cent in the year 2019-20.

The industrial sector has grown at an average annual rate (CAGR) of 4.2 per cent between the years 2011-12 and 2019-20. Its growth-rate, however, has fluctuated between - 12.5 per cent and +10.4 per cent. As a result the co-efficient of variation of the value of its output has been 11.3 per cent in this period.

Manufacturing, which is the biggest constituent of this sector, has been the fastest growing sub-sector of this industrial sector. It has grown at an average annual rate

of 5.8 per cent. Its growth-rate has also shown a very high fluctuation. It has fluctuated between – 25.8 per cent and +34.1 per cent. As a result the co-efficient of variation of the value of its output has been 17.5 per cent in this period.

The gross value added of ‘Mining and Quarrying’,

‘Electricity, Gas, Water Supply and Other Utility Services’ and ‘Construction’ sub-sectors have grown at an average annual rate of 1.8 per cent, 3.5 per cent and 3.2 per cent respectively. The co-efficient of variations (CVs) of the GVA of these three sub-sectors have been 7.6 per cent, 21.9 per cent and 10.6 per cent, respectively.

**Table 1.9: Value of output of the Industrial Sector at Constant Prices** (₹ Crores)

	2011-12	2016-17	2017-18	2018-19 (P.)	2019-20 (Pr.)	CAGR	CV
Mining and quarrying	16204	16854	16953	18354	18683	1.8	7.6
Manufacturing	30166	36568	41683	44640	47211	5.8	17.5
Electricity, Gas, Water Supply and Other Utility Services	2412	1431	2061	3070	3177	3.5	21.9
Construction	14395	15993	16911	17904	18471	3.2	10.6
Industry	63177	70845	77609	83968	87542	4.2	11.3

Source: GSDP and related aggregates by DES, GoJ and projections by CFS, GoJ.

**Table 1.10: Value of Output of the Industrial Sector at Constant Prices** (₹ Crores)

	2011-12	2016-17	2017-18	2018-19 (P.)	2019-20 (Pr.)
Mining and quarrying	25.6	23.8	21.8	21.9	21.3
Manufacturing	47.7	51.6	53.7	53.2	53.9
Electricity, Gas, Water Supply and other Utility Services	3.8	2.0	2.7	3.7	3.6
Construction	22.8	22.6	21.8	21.3	21.1
Industry	100.0	100.0	100.0	100.0	100.0

**Figure 1.7: Growth-Rate of Industry and its Sub-Sectors**

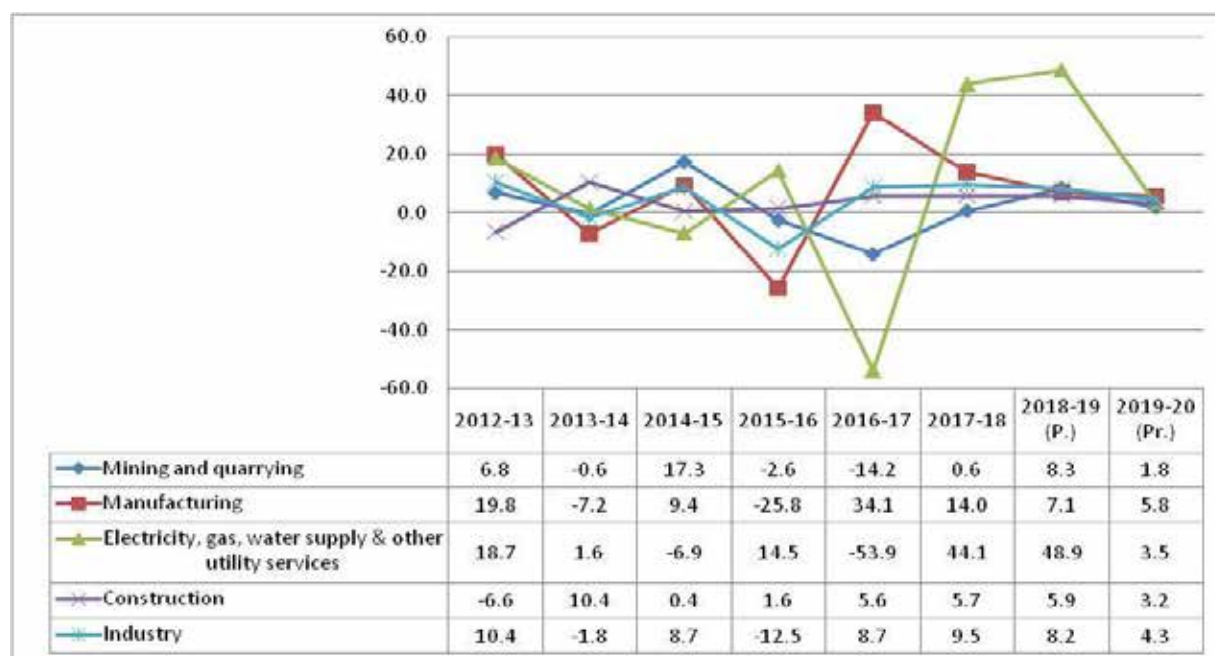
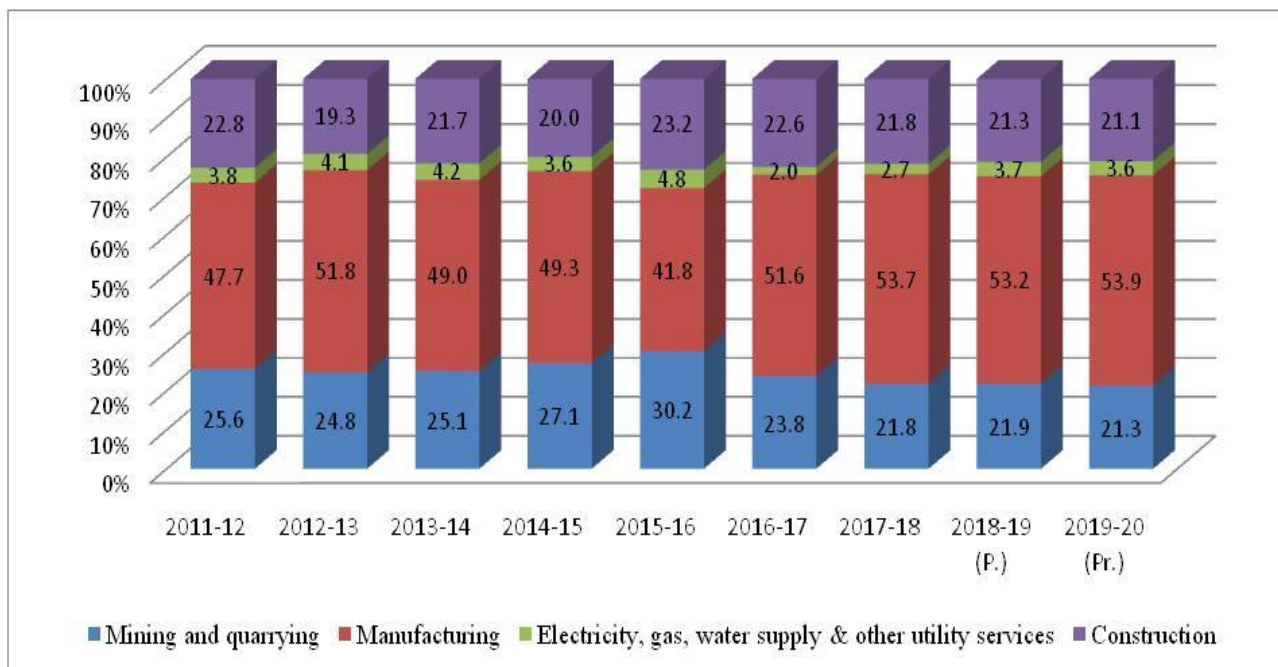


Figure 1.8: Share of the Sub-Sectors in the Industrial Output



Source: Calculated from the data of GSDP and related aggregates of DES, GoJ

### Tertiary/ Service Sector

The Tertiary/ Service sector has been the most dominant and the fastest growing sector of the economy of this state. The output of this sector constitutes about 46 per cent of the GVA of the state; it has recorded an average annual rate of 7.6 per cent between the FY 2011-12 and the FY 19-20, which is much higher than the overall growth-rate of the state. It alone contributes 62.5 per cent of the growth of the state’s economy.

Within this sector, the ‘Trade, Repair, Hotels and Restaurants’ is the fastest growing sub-sector. It has grown at an average annual rate of about 11.9 per cent during the period 2011-12 to 2019-20. As a result, the share of this sub-sector in the total value of the output of the tertiary sector has grown over the years i.e. from about 21.5 per cent in the year 2011-12 to 29.4 per cent in the year 2019-20.

The shares of ‘Public Administration’ and ‘Other Services’ in the total value of the output of the tertiary sector, however, have declined in this period. Their shares in the value of output of the tertiary sector were 18.3 per cent and 13.7 per cent, respectively, in 2011-12, which have declined to 15.7 per cent and 10.2 per cent respectively in the year 2019-20. This has happened because their growth-rates have been less than the average growth-rate of the tertiary sector. They have grown at the average annual rates of 5.5 and 3 per cent

respectively, between 2011-12 and 2019-20. Similarly, the share of ‘Transport, Storage, Communication and Services related to Broadcasting’ has also declined from 18.2 per cent in 2011-12 to 16.7 per cent in 2019-20 because of growth at less than the average annual rate of the tertiary sector on the whole. This sector grew at an annual rate of 6.5 per cent.

Within the sub-sector the ‘Transport, Storage, Communication and Services related to Broadcasting’, air transport has been the fastest growing sub-sector. It has grown at the average annual rate of about 32 per cent. The gross value added by this sector was only Rs. 14 crores in the year 2011-12; it has grown to Rs. 124 crores in the year 2019-20. This sector, however, is so small that despite such an impressive growth, its share in the gross value added (GVA) of the tertiary sector has not made any significant change. Storage, on the other hand, has recorded the lowest growth. The GVA of this sub-sector, in fact, has contracted at the compound annual rate (CAGR) of 1.9 per cent. As it is very small in size, the share of this sub-sector in the GVA of the tertiary sector has also remained almost constant. The GVA of this sub-sector was Rs. 4 crores only in the year 2011-12 which was reduced to Rs. 2 crores in the year 2017-18 and has remained at Rs. 3 crores for the last two years (2018-19 and 2019-20).

The share of all the other sectors has either remained unchanged or has changed only marginally.

**Table 1.11: Value of output of the Tertiary Sector and its Sub-Sectors at Constant Prices**

(₹ Crores)

Sl. No.	Item	2011-12	2016-17	2017-18	2018-19 (P.)	2019-20 (Pr.)	CAGR	CV
1	Trade, Repair, Hotels and Restaurants	11521	20175	22759	25282	28293	11.9	31.2
1.1	Trade and Repair Services	10660	18800	21324	23757	26638	12.1	32.1
1.2	Hotels and Restaurants	862	1374	1435	1525	1655	8.5	20.4
2	Transport, Storage, Communication and Services related to Broadcasting	9760	14023	14408	15108	16103	6.5	15.7
2.1	Railways	2979	3820	4072	4204	4416	5.0	11.7
2.2	Road Transport	4582	6429	6587	6984	7417	6.2	15.9
2.3	Air Transport	14	73	110	94	124	31.7	70.4
2.4	Services Incidental to Transport	223	339	341	320	337	5.3	22.4
2.5	Storage	4	3	2	3	3	-1.9	23.7
2.6	Communication and Services Related to Broadcasting	1957	3358	3296	3503	3806	8.7	22.0
3	Financial Services	4144	5998	6263	6397	6806	6.4	17.4
4	Real Estate, Ownership of Dwelling and Professional Services	11012	16429	17474	18966	20498	8.1	21.4
5	Public Administration	9818	8762	13421	14319	15112	5.5	26.3
6	Other Services	7363	9586	8138	9068	9341	3.0	8.8
	<b>Tertiary</b>	53617	74973	82461	89138	96153	7.6	20.4

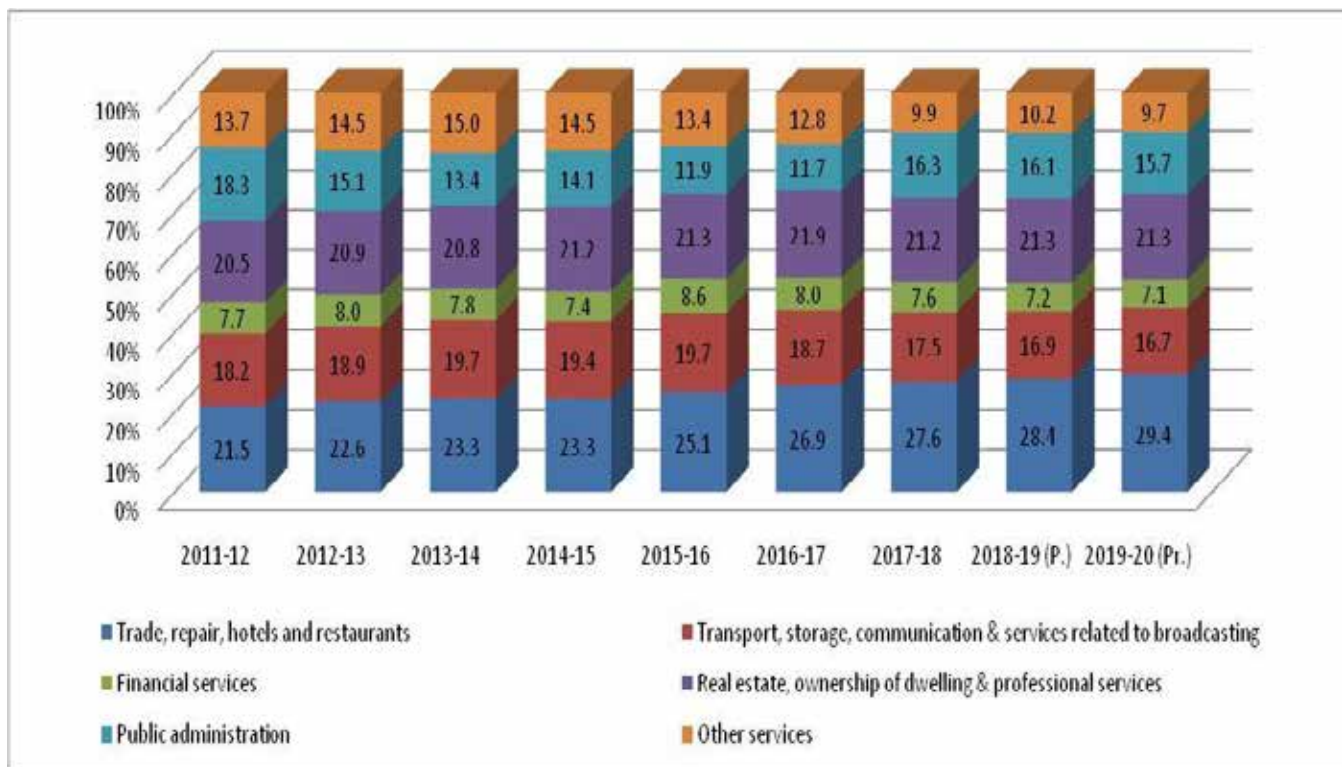
Source: GSDP and related aggregates by DES, GoJ and projections by CFS, GoJ.

**Table 1.12: Share of the Sub Sectors in the Output of the Tertiary Sector**

Sl. No.	Item	2011-12	2016-17	2017-18(P.)	2018-19 (Pr.)	2019-20 (Pr.)
1	Trade, Repair, Hotels and Restaurants	21.5	26.9	27.6	28.4	29.4
1.1	Trade and Repair Services	19.9	25.1	25.9	26.7	27.7
1.2	Hotels and Restaurants	1.6	1.8	1.7	1.7	1.7
2	Transport, Storage, Communication and Services related to Broadcasting	18.2	18.7	17.5	16.9	16.7
2.1	Railways	5.6	5.1	4.9	4.7	4.6

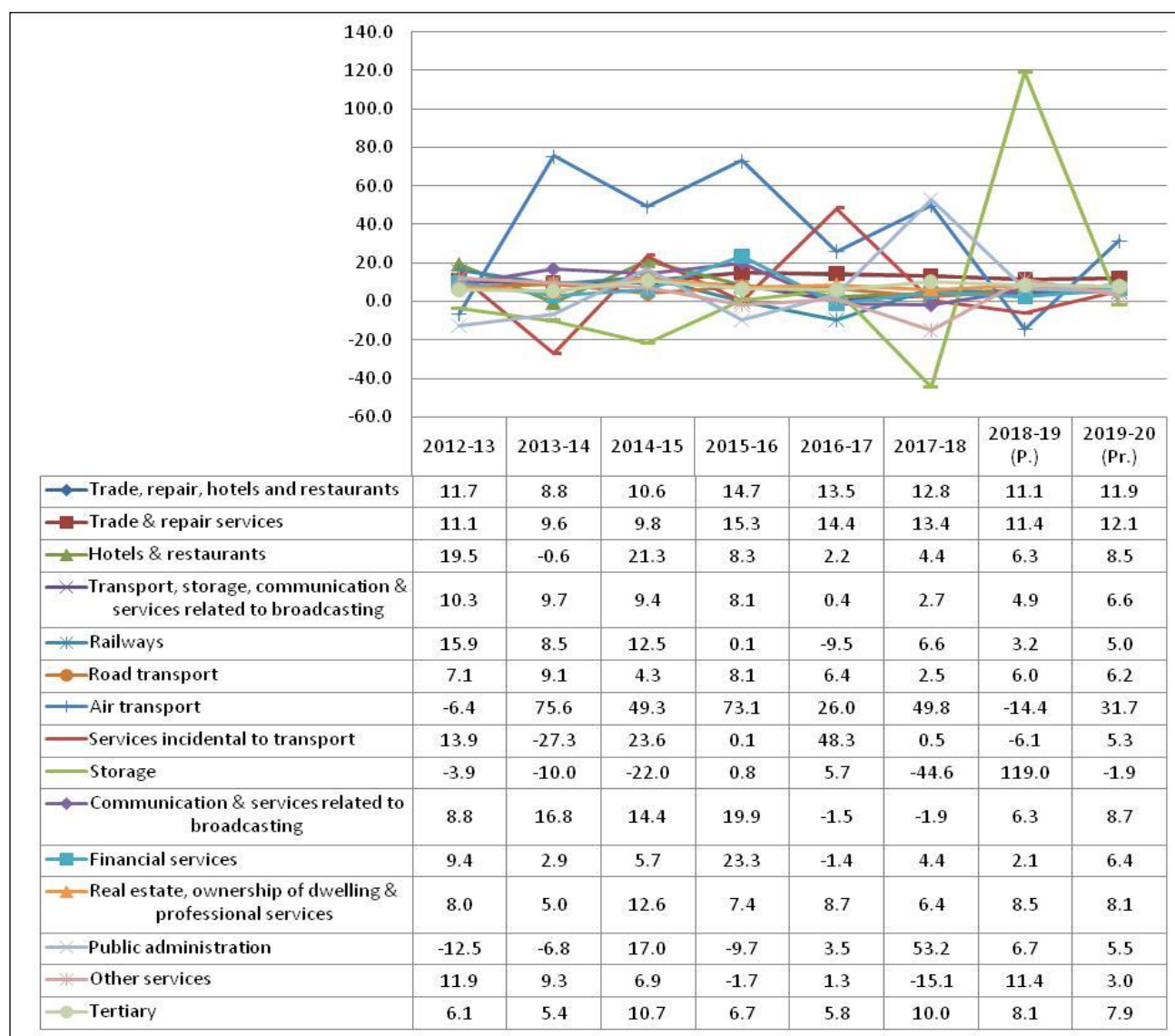
Sl. No.	Item	2011-12	2016-17	2017-18(P.)	2018-19 (Pr.)	2019-20 (Pr.)
2.2	Road Transport	8.5	8.6	8.0	7.8	7.7
2.3	Air Transport	0.0	0.1	0.1	0.1	0.1
2.4	Services incidental to Transport	0.4	0.5	0.4	0.4	0.4
2.5	Storage	0.0	0.0	0.0	0.0	0.0
2.6	Communication and Services Related to Broadcasting	3.7	4.5	4.0	3.9	4.0
3	Financial Services	7.7	8.0	7.6	7.2	7.1
4	Real Estate, Ownership of Dwelling and Professional Services	20.5	21.9	21.2	21.3	21.3
5	Public Administration	18.3	11.7	16.3	16.1	15.7
6	Other Services	13.7	12.8	9.9	10.2	9.7
	<b>Tertiary</b>	100.0	100.0	100.0	100.0	100.0

Figure 1.9: Share of the Sub Sectors in the Output of the Tertiary Sector



Source: Calculated from the data of GSDP and related aggregates of DES, GoJ.

Figure 1.10: Growth-rate of the Tertiary Sector and its Sub-Sectors



### Inflation in Jharkhand

The rate of inflation<sup>5</sup> in India and in Jharkhand has reduced after the adoption of the New Monetary Policy Framework<sup>6</sup> in February, 2015. The rate of inflation in Jharkhand and India remained below 6 per cent in the financial years 2016-17, 2017-18 and 2018-19. The annual rate of inflation in India, measured in terms of

5 Rate of inflation has been calculated on the basis of widely used consumer price index (CPI).

6 The Reserve Bank of India under the new monetary policy framework aimed to bring retail inflation below 6% by January 2016. The target for all the subsequent years was fixed at four per cent with a band of (+/-) 2 per cent.

Consumer Price Index (CPI)<sup>7</sup>, was 4.5 per cent in the financial year 2016-17, 3.6 per cent in the financial year 2017-18 and 3.5 per cent in the year 2018-19. The annual rate of inflation in Jharkhand was 5.3 per cent in 2016-17, 3.9 per cent in 2017-18 and 3.9 per cent in 2018-19 respectively. For more than a year, between August, 2018 and September, 2019, the rate of inflation, both in India and Jharkhand, remained below 4 per cent. The rate of inflation in India and Jharkhand was 3.7 and 3.5 per cent respectively, in August, 2018, 2.1 and 2.2 per cent respectively, in December, 2018, 2.6 and 2.8 per cent respectively, in February, 2019 and 3.99 and 2.87 per cent respectively, in September, 2019.

7 Inflation rate is measured as change in CPI (combined) of the month in comparison to the same month last year. For example the rate of inflation in November, 2019 is change in CPI of this month over that of November, 2018.



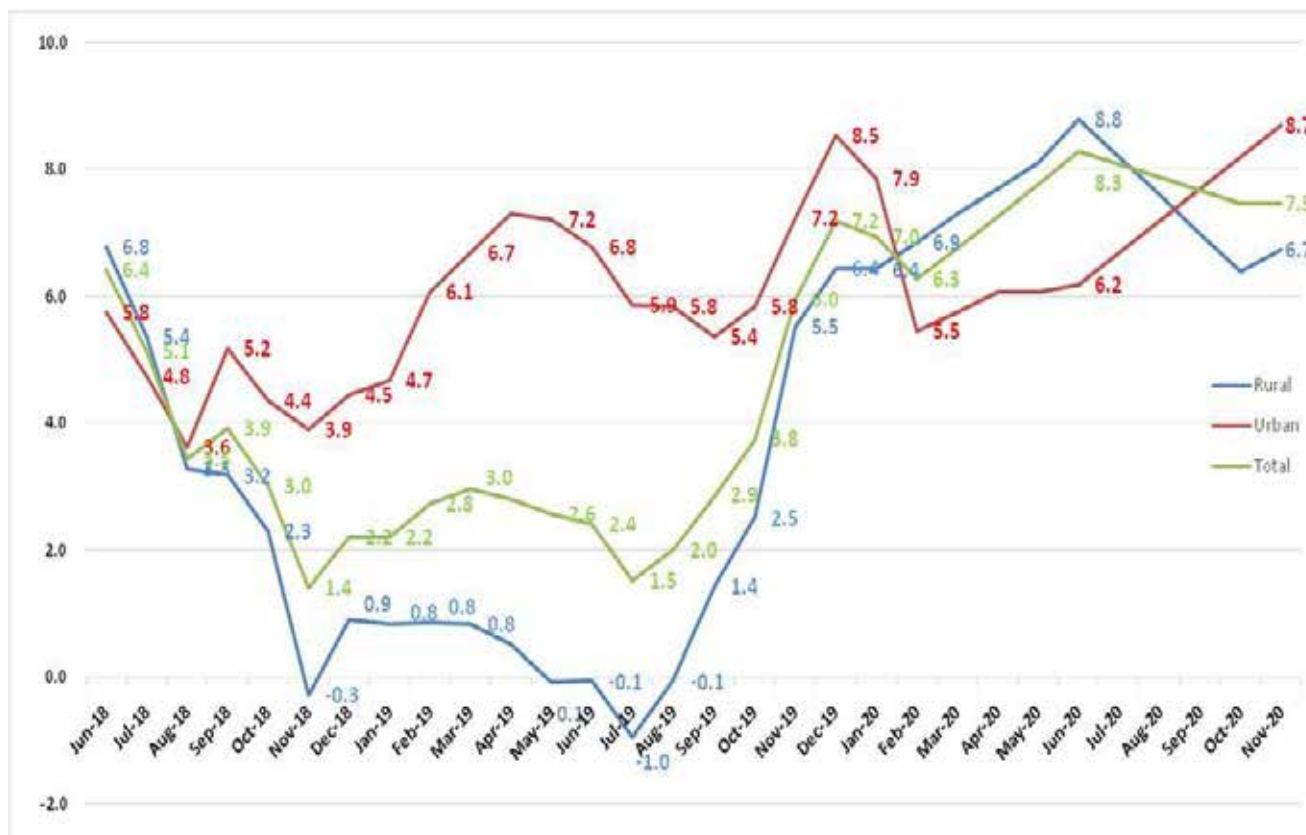
The rate of inflation, both in India and Jharkhand, started increasing since October, 2019. It crossed the Reserve Bank of India's (RBI) upper mark of 6 per cent in December, 2019. It has continued unabated since then. The rate of inflation in India and Jharkhand was 7.3 and 7.6 per cent respectively in September, 2020, 7.6 and 8.1 per cent respectively in October, 2020 and 6.9 and 7.5 per cent respectively, in November, 2020.

The surge in inflation-rate in the recent months has been caused by the slowdown of the economy, COVID-19, lockdown of the economy and disruption in the supply-chain. The highest increase in recent months has been in food-inflation. Food-inflation increased in double digit across pulses, one of the most important protein-item, vegetables, edible oils and spices because of

multiple supply shocks. The bumper rabi crop, increased production and supply of winter-vegetables in the market and the easing of supply-chain-disruptions may moderate the rate of inflation in the coming months. The inflation-expectation survey, conducted by the RBI, has also shown moderation in the expectation of inflation in the households. The expectation of inflation in households, both for three months as well as for one year ahead, has shown improvements.

Barring a few months, the rate of inflation in the urban areas of Jharkhand has been higher than that of the rural areas. Except in the period between April, 2018 and July, 2018 and in the month of February, 2020, the rate of inflation in the urban areas of Jharkhand has been higher than that of the rural areas.

**Figure 1.11 Rate of Inflation in Jharkhand**



Source: Calculated from the data obtained from Data.Gov in (<https://data.gov.in/catalog/state-level-consumer-price-index-ruralurban>)

### Poverty in Jharkhand

According to the 'Global Multidimensional Poverty Index -2019' report, released by Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP), in July 2019, about 72 lakh people of Jharkhand have come out of multidimensional poverty in a ten-year-period from 2005-06 to 2015-16. The percentage of the multidimensionally poor in the state has decreased from 74.7 per cent in 2005-06 to 46.5 per cent in 2015-16.

### Conclusion

The GSDP of Jharkhand has grown at an average annual rate of 5.9 per cent between 2011-12 and 2019-20. In the year 2019-20, it has been estimated to have grown at the rate of 6.7 per cent. The GSDP of Jharkhand constitutes only 1.6 per cent of the GDP of the country while it is spread over 2.4 per cent of the geographical area of the country and inhabits 2.7 per cent of the population of the country.

The per capita income of the state in the year 2019-20 is Rs. 57,863 at constant prices and Rs. 79,873 at current prices. Only three of the states of the country, namely Manipur, Uttar Pradesh and Bihar have per capita income which is less than that of Jharkhand.

Among the three major sectors of the state's economy, the tertiary sector has grown at the fastest rate this year. It is estimated to have grown at the rate of 7.9 per cent while the primary and secondary sectors have grown at the rate of 2.2 per cent and 4.9 per cent respectively in the financial year 2019-20. The tertiary sector has contributed the major share in the GSDP of the state (45.8 per cent) and is the chief contributor to the growth of the state's economy also. It has contributed 62.5 per cent in the growth of the state's economy in the year 2019-20.

For more than a year the rate of inflation in Jharkhand has remained above 6 per cent, the mark set by the RBI in its new monetary policy. It crossed the Reserve Bank of India's (RBI) upper mark of 6 per cent in December, 2019. It has continued unabated since then. The rate of inflation in Jharkhand was 7.6 per cent in September 2020, 8.1 per cent in October, 2020 and 7.5 per cent in November 2020. It is expected to reduce with an improvement in production and in the supply chain.

In Jharkhand about 72 lakh people have come out of multidimensional poverty in a ten-year-period from 2005-06 to 2015-16. The percentage of the multidimensionally poor in the state has decreased from 74.7 per cent in 2005-06 to 46.5 per cent in 2015-16.



## Chapter 2

# Fiscal Development and State Finances





The size and composition of the budget play a crucial role in ensuring the development of an economy. Realizing this, the government of Jharkhand has made efforts to increase the size of its budget and divert a substantial part of it for the creation of capital and also towards developmental-schemes. The size of budget had increased at an average annual rate of 12.1 per cent between the financial year 2014-15 and 2019-20. Its size has been estimated to grow by about 22 percent in the current financial year (2020-21 BE).

The total expenditure of the state was about Rs. 40 thousand crores in the year 2014-15, which increased to about Rs. 70 thousand cores by 2019-20. In the current financial year, it is estimated to be about Rs. 86 thousand crores. Expenditure on ‘Schemes’ constituted about 53 per cent of the total expenditure in 2019-20 (P). In the current financial year (2020-21), it is estimated to constitute about 57 per cent of the total expenditure. About 83 per cent of the expenditure has been financed by revenue receipts in 2019-20 (P), which is estimated to increase to about 87 per cent in 2020-21 (BE).

### Receipts

The total receipts of Jharkhand have grown at the average annual rate of 12.1 per cent between the financial year 2014-15 and 2019-20. The revenue receipts grew at an

average annual rate (CAGR) of 13.1 per cent and the capital receipts by 7.8 per cent during this period.

In the current financial year (2020-21), the total receipt is estimated (Budget Estimate) to be Rs. 86370 crores; about 22 per cent more than the total receipts of the previous year. The revenue receipt is estimated to be Rs. 75308.75 crores, and the capital receipt is estimated to be 11061.25 crores in the current financial year. The revenue receipt this year (2020-21 BE) is estimated to be about 29 per cent higher than that of the previous year and the capital receipt is estimated to be about 10 per cent less than that of the previous year.

In the last five years, the revenue receipts have contributed more than three-fourth to the total receipts of the state and the remaining less than one-fourth has been contributed by the capital receipts. The share of revenue receipts has increased and that of the capital receipts has decreased over the last five years. The revenue receipts constituted about 75 per cent and the capital receipts remaining 25 per cent of the total receipts of the state in the year 2015-16, which changed to 78 and 22 per cent respectively in 2017-18 and 83 and 17 per cent respectively in 2019-20. In the budget estimates of the current financial year the revenue receipt is estimated to be about 87 per cent and the capital receipts about 13 per cent of the total receipts of the state.

**Table 2.1: Receipts of the State in ₹ Crores**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (BE)	CAGR (2014-15 to 2019- 20)
1. Revenue Receipts	31564.56	40638.35	47053.93	52756.03	56151.7	58417.14	75308.75	13.1
i. Tax Revenue	19836.82	27447.7	32441.17	33497.07	38658.2	37364.49	47649.41	13.5
ii. Non-Tax Revenue	11727.74	13190.65	14612.76	19258.96	17493.5	21052.65	27659.34	12.4
2. Capital Receipts	8476.94	13798.92	12308.75	14948.25	9736.44	12315.03	11061.25	7.8
Total Receipts	40041.50	54437.27	59362.68	67704.28	65888.14	70732.17	86370.00	12.1

Source: The Department of Planning-cum-Finance (Finance Division), GoJ

Figure 2.1: Growth in Revenue and Capital Receipts (in Percentage)

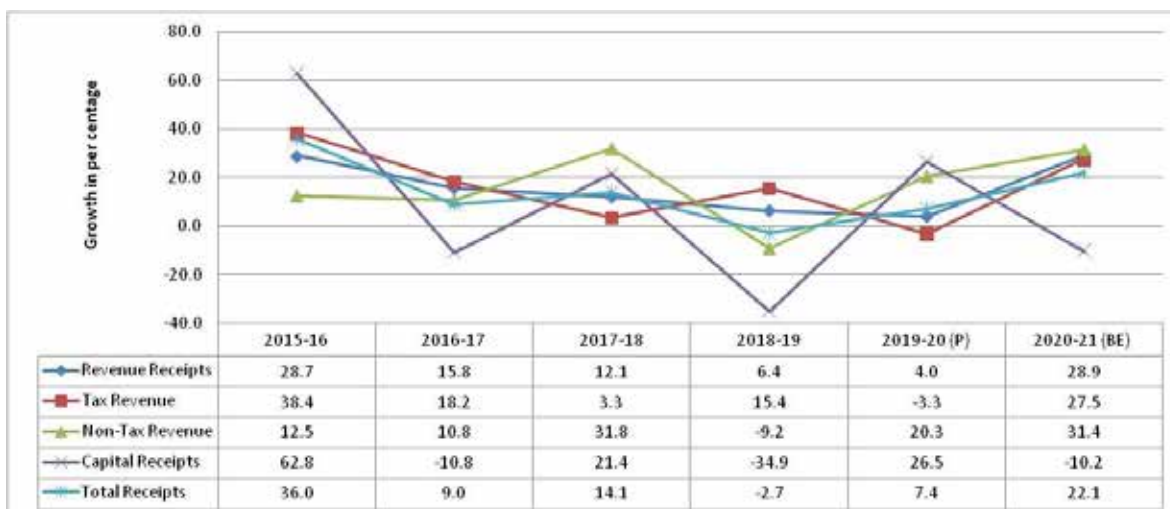
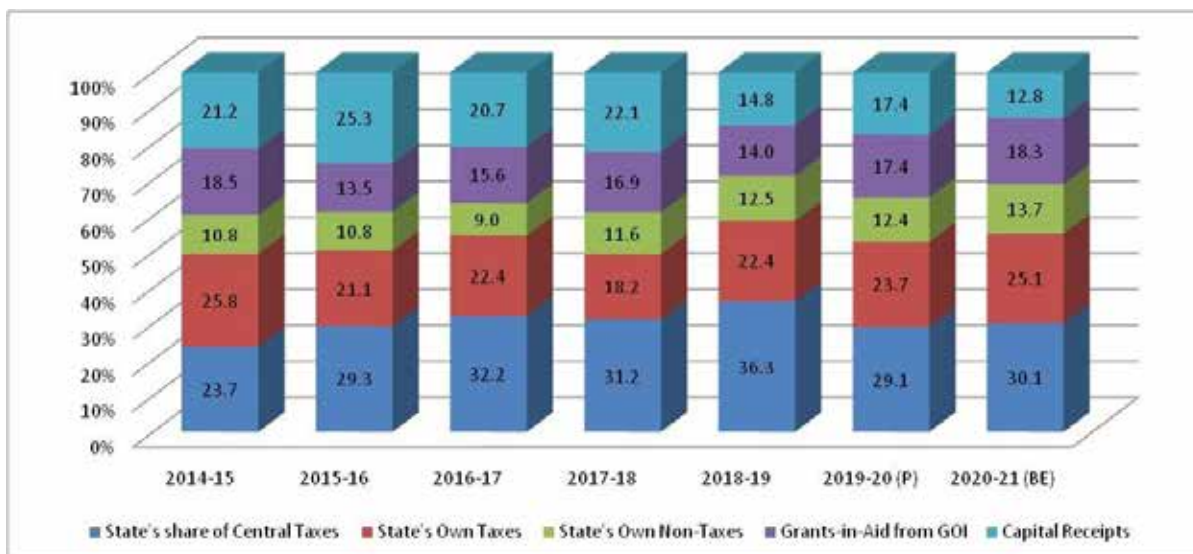


Figure 2.2: Composition of total Receipts of the State (in Percentage)



### Revenue Receipts

The revenue is mobilised through the tax and the non-tax sources. Part of both the tax and the non-tax revenue is generated within the state and part of it comes from the Central government in the form of the share in central taxes and grants-in-aid. More than three-fifths of the revenue receipts of the state come from the tax sources and the rest from the non-tax sources. The share of the revenue from the non-tax sources had increased in the year 2014-15 because of a very high growth in the grants-in-aid from the GoI and that again happened in the year 2017-18 because of the high growth in the state's own non-tax revenue. The grants-in-aid from the GOI increased excessively by about 82 per cent in the year 2014-15. This year was the terminal year of the 13th Finance Commission and the state received payments of the arrears of grants-in-aid.

About half of the total revenue receipts of the state were mobilised within the state in the year 2013-14. However, since the year 2014-15, the share of resources received from the Central government started increasing while the resources generated within the state started decreasing. In the total revenue receipts of the state, the share of resources from the Centre had increased from about 50 per cent in the year 2013-14 to about 54 per cent in the year 2014-15, mainly, because of the increase in the grants-in-aid. In comparison to the previous year, the grants-in-aid of the centre to Jharkhand had increased by about 82 per cent in 2014-15. Since then, the grants-in-aid of the Centre to the state grew at a modest average annual rate of only about 11 per cent per annum, the share of the transfers from the Centre to the state remained high because of the increase in both the vertical and the horizontal devolution from the Centre to the state on the

recommendations of the 14th Finance Commission. As a result, the state's share in central taxes increased at an average annual rate of about 17 per cent between 2014-15 and 2019-20.

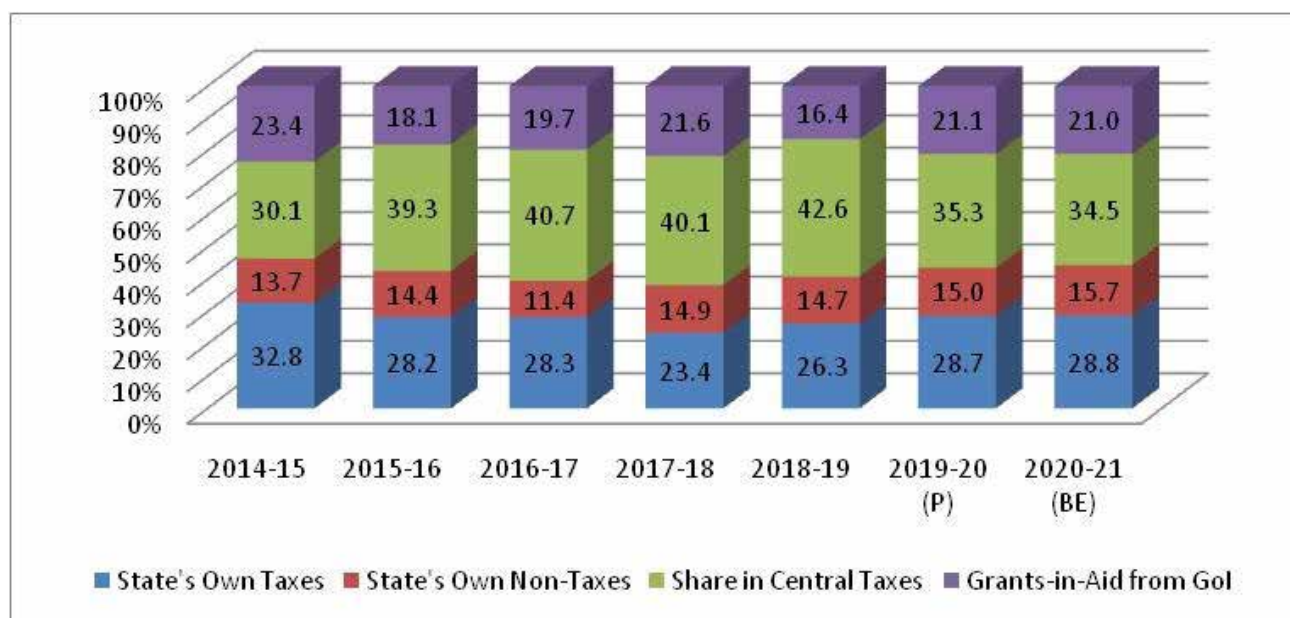
**Table 2.2: The Revenue Receipts of the State Government**

(₹ in crores)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (BE)	CAGR 14-15 to 19-20)
From its own sources	14684.87	17331.97	18650.74	20200.11	23010.05	25521.43	33489.84	11.7
State's Own Taxes	10349.81	11478.95	13299.25	12353.43	14752.04	16771.45	21669.50	10.1
State's Own Non-Taxes	4335.06	5853.01	5351.41	7846.67	8257.98	8749.98	11820.34	15.1
From GoI	16879.69	23306.39	28403.27	32555.92	33141.65	32895.71	41818.91	14.3
Share in Central Taxes	9487.01	15968.75	19141.92	21143.64	23906.16	20593.04	25979.91	16.8
Grants-in-Aid from GoI	7392.68	7337.64	9261.35	11412.29	9235.52	12302.67	15839.00	10.7
Total Revenue Receipts	31564.56	40638.35	47053.93	52756.03	56151.70	58417.14	75308.75	13.1

Source: The Department of Planning-cum-Finance, GoJ.

**Figure 2.3: Composition of the Revenue Receipts of the State (in Percentage)**



### The Tax Revenue of the state

The tax revenue of the state consists of the 'State's Share in Central Taxes' and its 'Own Tax Revenue'. Between the two, the state's share in the central taxes has shown the fastest growth between 2014-15 and 2019-20. While the state's share in the central taxes grew at a CAGR of 16.8 per cent, the state's own taxes grew at an average annual rate (CAGR) of only 10.1 per cent in this period. The reason for the high growth in the

state's share in the central taxes has been an increase in the devolution by the centre following the award of the 14th Finance Commission (FC) and an increase in the share of Jharkhand in the inter se transfer. The 14th FC had recommended a hike in the devolution by 10 percentage points, from 32 per cent of the previous commission to 42 per cent in this commission period (2015-16 to 2019-20). The 14th Finance Commission also recommended a change in the horizontal formula



for the distribution of the states' share in divisible pool among the states because of which Jharkhand's share in inter se transfer has also increased from 2.802 per cent in the 13th Finance Commission to 3.139 per cent in the 14th Finance Commission.

Because of the recommendations of the 14th Finance Commission, the state's share in central taxes increased by about 68 per cent in the year 2015-16 in comparison to that of 2014-15. While the receipt of the state was Rs. 9478 crores in the year 2014-15, it increased to Rs. 15968.75 crores in the year 2015-16. Between 2014-15 and 2018-19, the state's share in central taxes increased at a compound annual rate (CAGR) of 26 per cent. The state thus received about 23906 crore rupees from the centre under this head in the year 2018-19. However, in the financial year 2019-20 the state received only 20593 crore rupees as share in central taxes – about Rs. 3314 crore less than what it received in the previous year. The state's share in central taxes, thus, is estimated to decline by about 14 per cent in 2019-20 from that of the previous year. This decline in the Jharkhand's share in central taxes has been because of the fall in the collection of central taxes caused by the slow growth of the country's Gross National Income (GNP). The nominal GNP of the country grew by 7.6 per cent only (1st Advanced Estimate) in the year 2019-20 while between 2015-16 and 2018-19 it grew at more than 10 per cent. In the current financial year it is estimated to be about Rs. 25980 crores, which is about 26 per cent more than that of the previous year but only 8.7 per cent more than that of 2018-19.

The slow average growth in the state's own taxes has been because of slow growth in all the major state's taxes, i.e. commercial taxes, excise, registration and land revenue between the years 2013-14 and 2019-20 and also because of a fall in their collection of taxes in the year 2017-18. The collection from commercial taxes, excise, registration and land revenue in the year 2017-18 decreased by 6.48%, 12.57%, 22.68% and 35.07%, respectively, because of which the state's own sources of revenue decreased by about 7 per cent from that of the previous year. Collection of revenue, especially from excise, registration and transport, recorded an impressive growth in 2019-20.

As a result of differential growth in state's share in central taxes and state's own tax revenue, the share of the 'state's share in the central taxes in the total revenue receipts of the state has increased from about 30 per cent in 2014-15 to about 35 per cent in the 2019-20, while share of state's own taxes has decreased from about 33

per cent to 28 per cent during this period.

**State's Own Taxes:** Commercial taxes are the main source of the own tax revenue of the state. It constituted more than 80 per cent of its own tax revenue between 2013-14 and 2018-19. However, its share in the State's total own tax revenue has declined to about 76 per cent in the year 2019-20. This is because in comparison to the previous years, there was a very modest growth in the collection from this tax. The total tax collection from this source grew at the compound annual rate of 9.2 per cent between 2013-14 and 2019-20. Except for the year 2017-18, when the collection from this source had declined by 6.5 per cent, it recorded a double digit growth between 2013-14 and 2018-19. In 2019-20, it grew at a very modest rate of 6.4 per cent only.

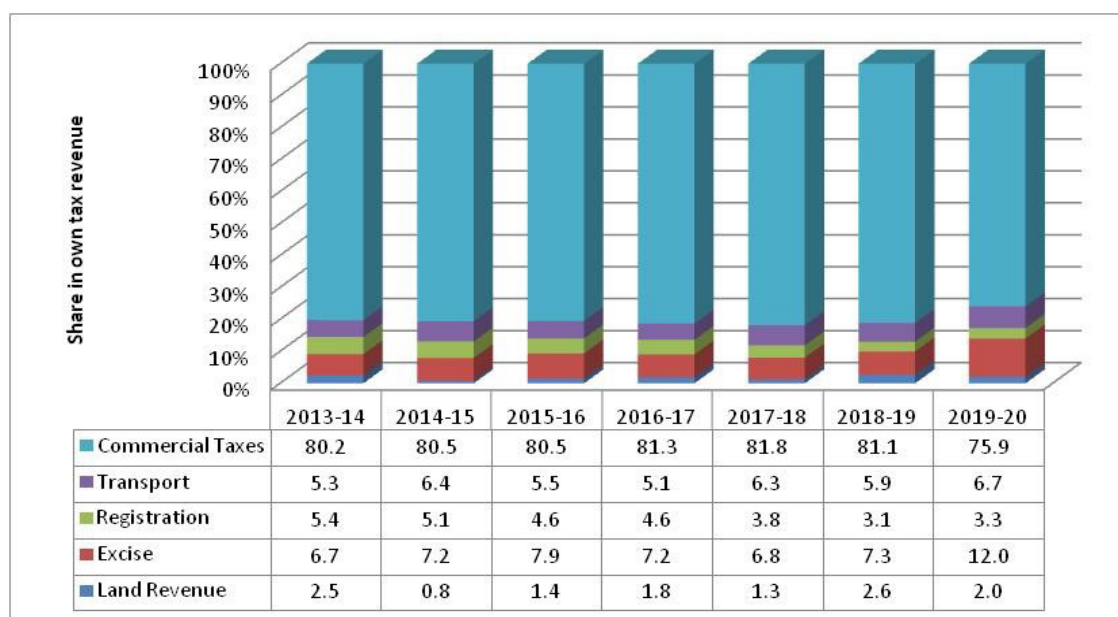
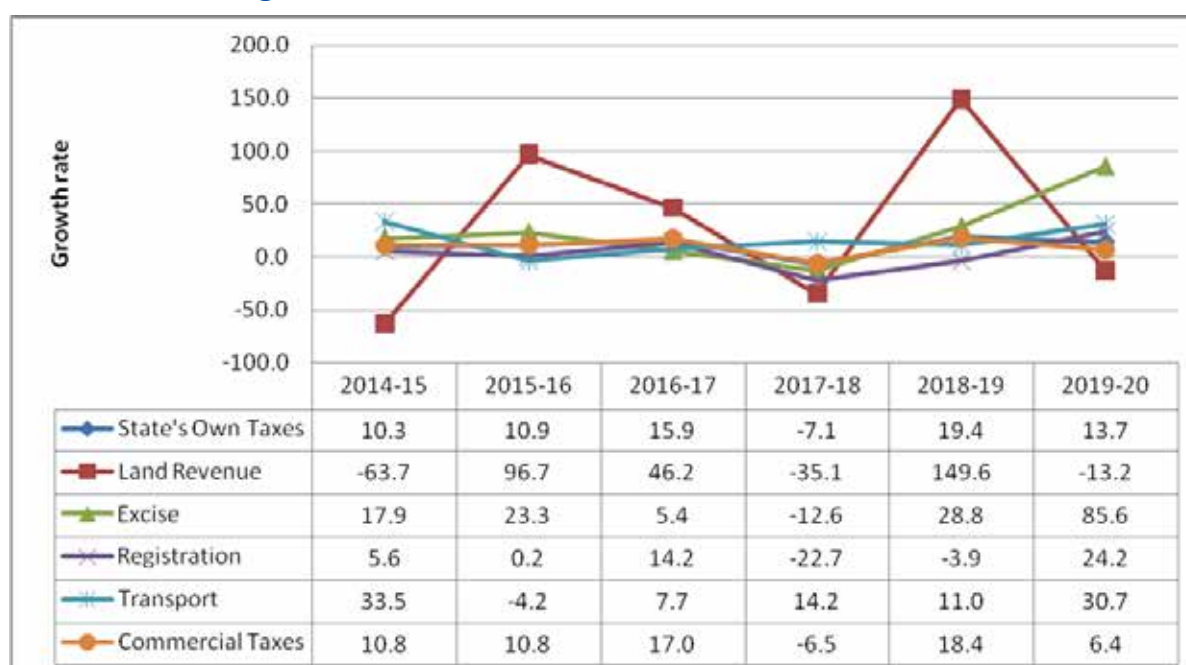
Excise and transport are the other two important sources of own tax revenue of the state. Excise duty constituted about 7 per cent of the state's own tax revenue between 2013-14 and 2018-19. Its share, however, increased to 12 per cent of the state's own tax revenue in the year 2019-20. This happened because of a very sharp increase in collection from this tax in last two years. While the collection from excise duty had declined by 12.6 per cent in 2017-18, it increased by 28.8 per cent in 2018-19 and 85.6 per cent in 2019-20. The collection from excise duty was about Rs. 840 crores in 2017-18 which increased to about Rs. 2000 crores in 2019-20.

The tax collection from transport has constituted more than 5 per cent of the state's own tax revenue between 2013-14 and 2019-20. It grew at an average annual rate of 14.7 per cent in this period. In the year 2019-20, the revenue from this source increased by 30.7 per cent. The collection from this source has more than doubled in last seven years. About Rs. 5 hundred crores was collected from this source in 2013-14 and Rs 11 hundred crores was collected in 2019-20.

The collection of revenue from registration, which decreased continuously in 2017-18 and 2018-19, grew by about 24 per cent in 2019-20. As a result while its share in the state's own tax revenue kept on decreasing from 5.3 per cent in 2013-14 to 3.1 per cent in 2018-19, it improved to 3.3 per cent in 2019-20. The share of revenue from land revenue in the state's own tax revenue, has remained almost the same between 2013-14 and 2019-20.

**Table 2.3: The Revenue Receipts from the State's Own Tax Sources (in Crores)**

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	CAGR
State's Own Taxes	9379.79	10349.81	11478.95	13299.25	12353.43	14752.04	16771.45	10.17
Land Revenue	229.84	83.54	164.35	240.26	156.01	389.38	337.98	6.64
Excise	627.93	740.16	912.47	961.68	840.81	1082.82	2009.27	21.39
Registration	502.6	530.67	531.64	607.01	469.34	451.09	560.33	1.83
Transport	494.79	660.37	632.59	681.52	778.37	863.94	1128.98	14.74
Commercial Taxes	7524.62	8335.07	9237.90	10808.78	10108.91	11964.84	12734.89	9.17

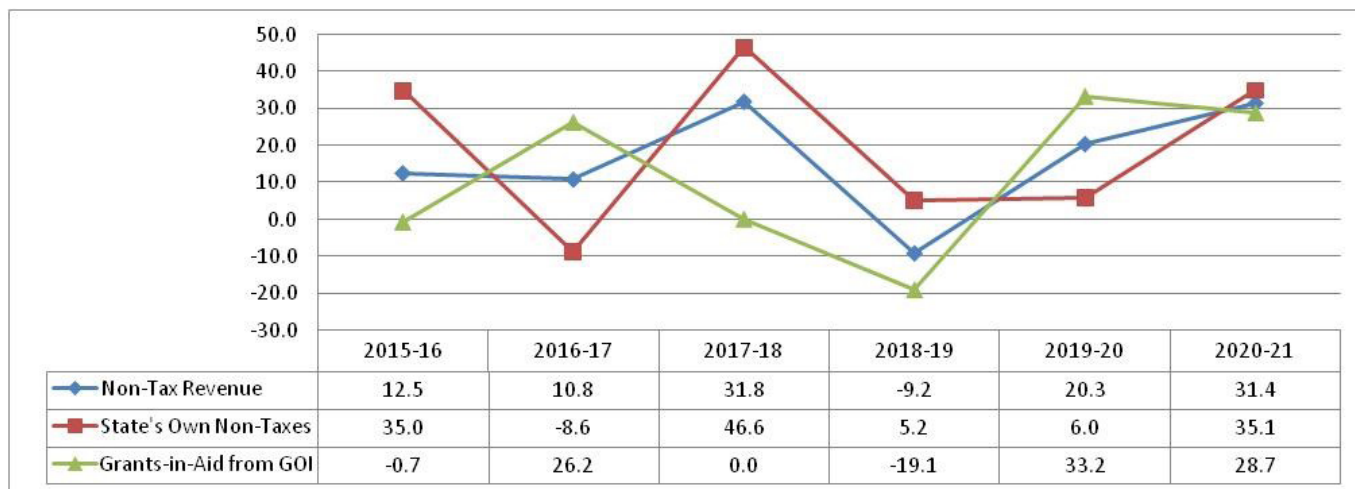
**Figure 2.4: The Composition of Own Sources of Tax Revenue**

**Figure 2.5: The Growth in Own Sources of Tax Revenue**


**State’s Receipts from Non-Taxes**

The non-tax revenue of the state increased at a CAGR of 12.4 per cent between 2014-15 and 2019-20. The state’s own non-tax revenue grew at the average annual rate (CAGR) of 15.1 per cent and grants-in-aid from the government of India by 10.7 per cent during this period. The share of non-tax revenue in the total revenue receipts of the state has not changed much in this period. However, between the state’s own non-tax revenue and grants-in-aid from the GoI, the share of the former has increased and that of the latter has decreased.

Grant in Aid from GoI: In the year 2014-15, the state received Rs. 7392.68 crores of Grants-in-Aid from the Government of India. It increased to Rs. 12302.67 crores in the year 2019-20. It, thus, grew at an average annual rate (CAGR) of 10.7 per cent. In the current financial year (2020-21) it is estimated to be Rs. 15839 crores, a growth of about 29 per cent from the receipts of Grants-in-Aid from the government of India in the year 2019-20. The Government of India had reduced its grants-in-Aid to Jharkhand by about Rs. 55 crores in 2015-16, the first year of the 14th Finance Commission, but it was restored soon from the next year.

**Figure 2.6: The Growth in Non Tax Revenue in Jharkhand.**



**The State’s Own Non-Tax Revenue:** The state’s own non-tax revenue was about Rs. 3753 crores in the year 2013-14. Growing at an average annual rate of about 15 per cent between 2013-14 and 2019-20, it grew to about Rs. 8750 crores in the year 2019-20. Thus, it more than doubled in a period of 7 years. The revenue from mines is the most important source of the state’s own non-tax revenue. About Rs. 3230 crores of revenue were collected from this source in the year 2013-14, which

increased to about Rs. 5461 crores in the year 2019-20. It, thus, grew at an average annual rate (CAGR) of 9.15 per cent during this period. The state received Rs. 522 crores of revenue from the other non-tax sources in the year 2013-14 which increased by about 6 times by the year 2019-20. The state received Rs. 3289 crores of revenue from the other non-tax sources in the year 2019-20. It thus grew at an average annual rate (CAGR) of about 36 per cent between 2013-14 and 2019-20.

**Table 2.4: The Revenue Receipts from the State’s Own Non-Tax Sources (in Crores)**

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	CAGR
State's Own Non-Taxes	3752.71	4335.06	5853.01	5351.41	7846.67	8257.98	8749.98	15.15
Mines	3230.22	3472.99	4384.43	4094.25	5941.36	5934.64	5461.36	9.15
Others	522.49	862.07	1468.58	1257.16	1905.31	2323.33	3288.62	35.88

Figure 2.7: The Composition of State's Own Non-Tax Revenue

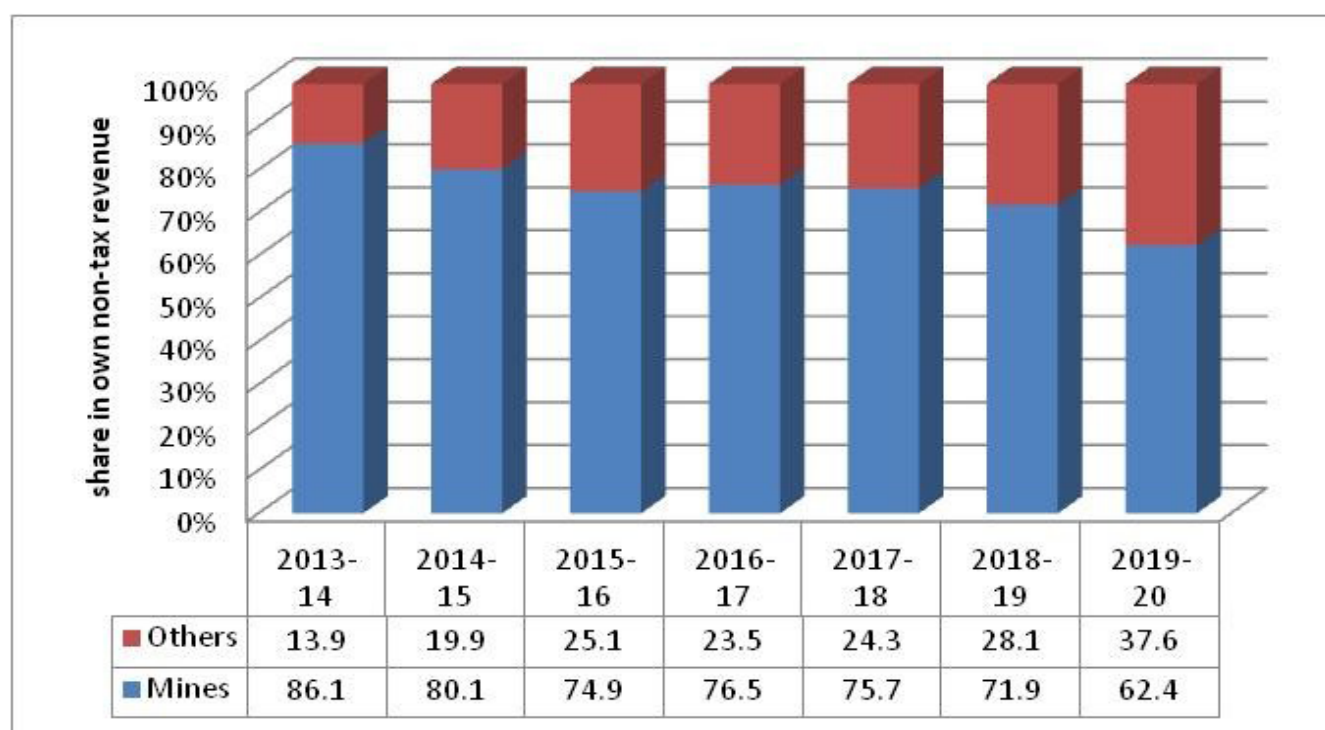
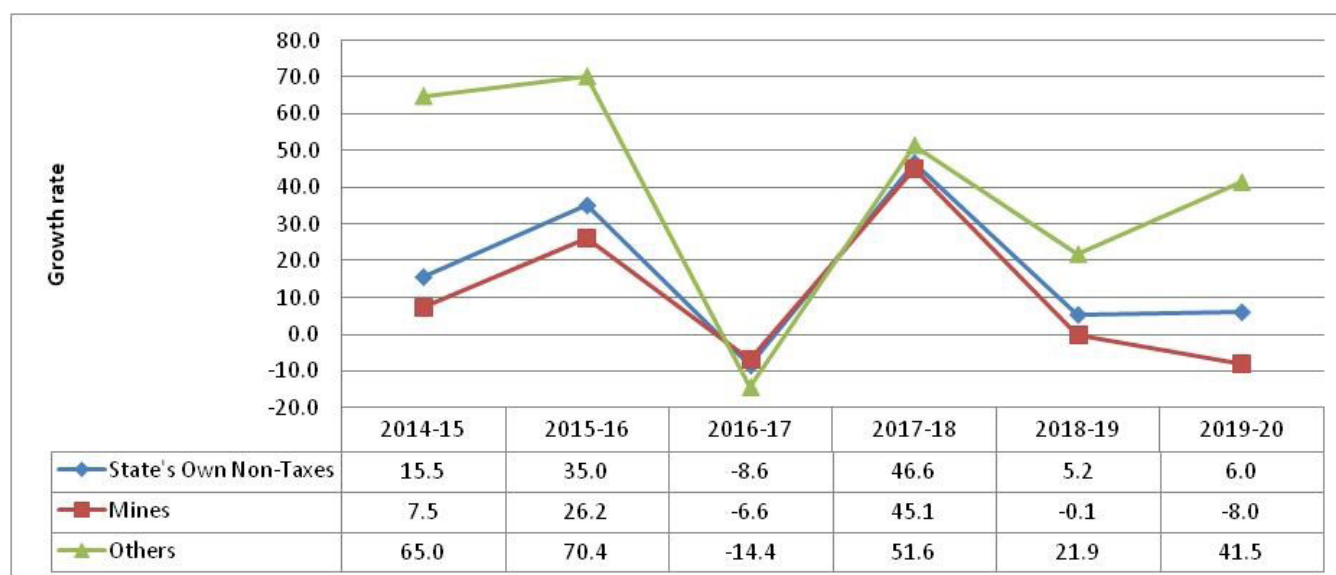


Figure 2.8: Growth Rate of State's Own Non-Tax Revenue



### Capital Receipts

The capital receipts of the state government include the recoveries of loan, other non-debt capital receipts and borrowing and other liabilities of the government. Out of them, borrowing and other liabilities are the main sources of capital receipts of the state. It constitutes more than 99 per cent of the total capital receipts of the state. Recoveries of loan constituted not more than 0.5 per cent of the total capital receipts of the state between 2014-15 and 2019-20. In this period, the borrowing

and other liabilities of the state grew at a compound annual rate (CAGR) of 7.8 per cent and the recoveries of loans by 8.3 per cent. In the current financial year the 'Recoveries of Loans' have been estimated to grow by about 24 per cent and the 'Borrowings and Other Liabilities' have been estimated to contract by about 10 per cent.

**Table 2.5: The Capital Receipts of the State Government**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (BE)	CAGR 14-15 to 19-20)
Recoveries of Loans	33.06	31.06	38.45	42.41	47.57	49.19	61.25	8.3
Other Receipts	0.00	0.00	0.00	25.09	0.00	0.00	0.00	
Borrowing and Other Liabilities	8443.88	13767.86	12270.30	14880.75	9688.87	12265.84	11000.00	7.8
Capital Receipts	8476.94	13798.92	12308.75	14948.25	9736.44	12315.03	11061.25	7.8

### Receipts as a percentage of GSDP

The total receipt of Jharkhand was about 18 per cent of its nominal GSDP in the year 2014-15. It increased to about 26 per cent of its nominal GSDP in the year 2015-16 and remained at 25 per cent of its GSDP in 2016-17 and 2017-18. It declined to about 22 per cent of its GSDP in the year 2018-19 and 2019-20 (P). The increase in the total receipt to the GSDP ratio in the year 2015-16 was because of the increase in revenue-receipts of the state, the numerator of this ratio, on one hand and decrease in the nominal GSDP of the state, the denominator of this ratio, on the other. In comparison to the previous year, the revenue receipts of the state increased by about 29 per cent this year. This was because of the unprecedented growth in ‘state’s share in central taxes’ and the ‘state’s own non-taxes’. In comparison to 2014-15, in 2015-16, the state’s share in central taxes recorded a growth of about 68 and the state’s own non-tax revenue by 35 per cent; the nominal GSDP on the other hand contracted by 5.5 per cent. The increase in ‘state’s share in central taxes’ happened because of the increase in devolution for the award period of the 15th Finance Commission and the increase in the state’s own non-tax revenue because of the revision of royalty of other minerals in 2014.

Except for the year 2019-20, the state’s share in central taxes not only remained high but kept on growing throughout the award period of the 14th Finance Commission. As a result, the state’s share in central taxes, which was only about 4 per cent of the GSDP in 2014-15, remained about at 8 per cent of it between 2015-16 and 2018-19. It, however, decreased to 6 per cent of GSDP in the year 2019-20.

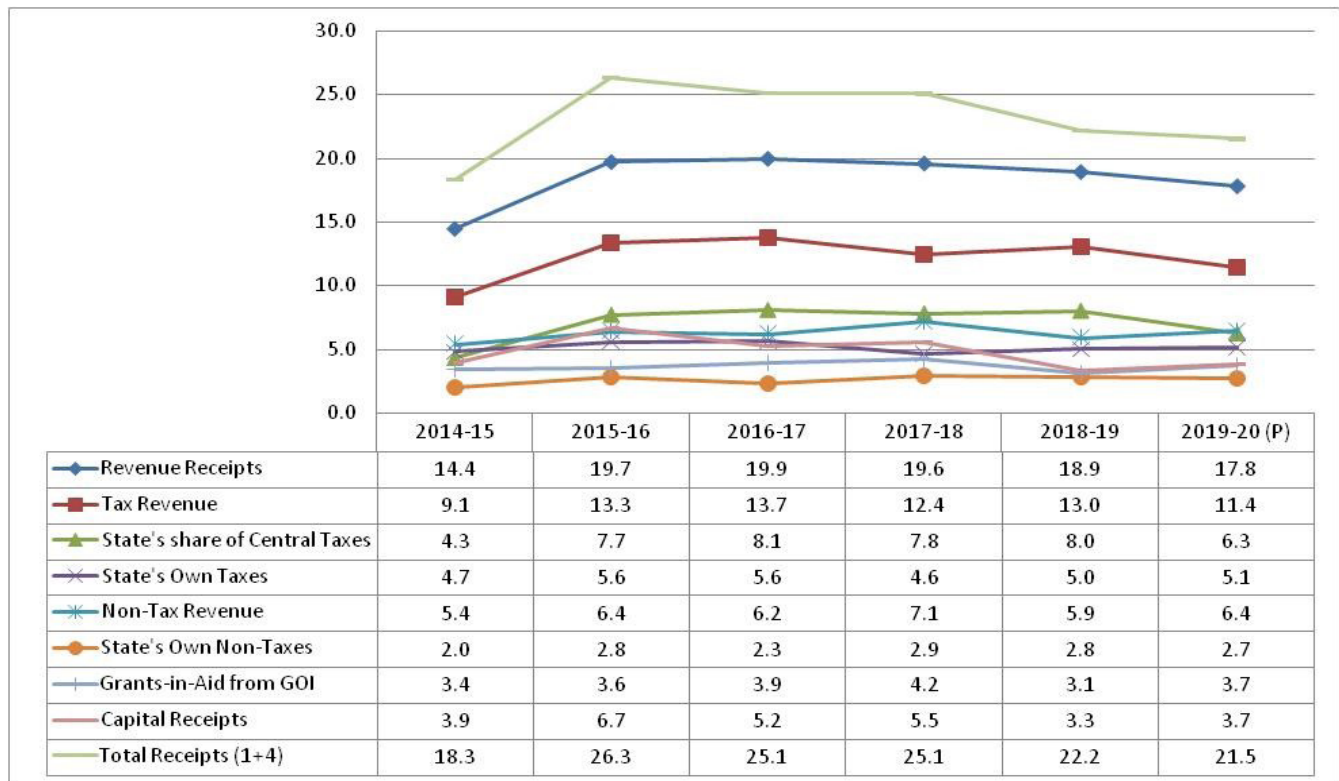
As a per cent of GSDP, the revenue from the state’s own taxes has remained almost stable between 2014-15 and 2019-20. It was 4.7 per cent of the nominal GSDP of the state in 2014-15 and varied between 4.6 per cent and 5.6 per cent between 2015-16 and 2019-20.

The capital receipt as a percentage of the GSDP increased from 3.9 per cent in 2014-15 to 6.7 per cent in 2015-16 but decreased to 3.3 per cent in 2018-19 and 3.7 per cent in 2019-20. The increase in the capital receipts in the year 2015-16 was caused by the loan taken by the state under the Ujjwal Discom Assurance Yojana (UDAY) scheme. The state received a loan of Rs 5,553.37 crores this year under the UDAY scheme.

### Buoyancy of state’s own Taxes

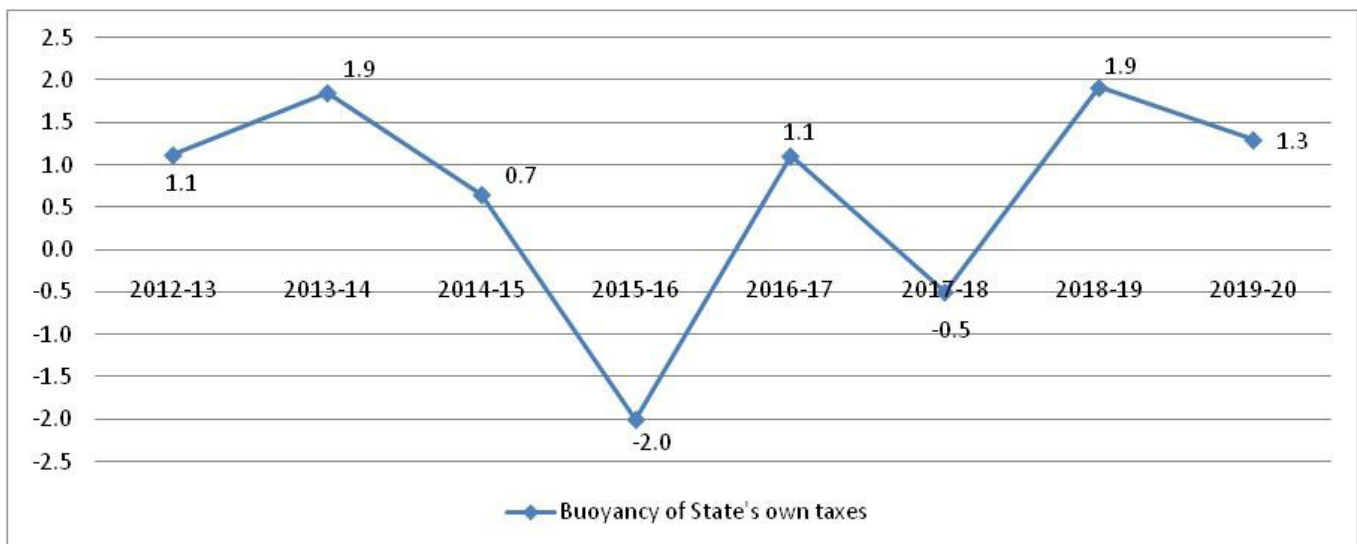
There is a close relation between the income of an economy and the revenue collected from its taxes. It is expected that the revenues from taxes should increase as the economy grows. Tax buoyancy measures the responsiveness of the tax revenue to the growth of the economy. It is an indicator to measure the efficiency of a tax system. A tax system is called buoyant if the revenue from its taxes grows faster than the growth in its GDP. On an average, the tax system of Jharkhand is buoyant. The average buoyancy of its own taxes between 2011-12 and 2019-20 is 1.1. In five out of the last eight years, tax buoyancy has remained more than 1. It was as high as 1.9 in 2013-14 and 2018-19. Only three of these eight years, buoyancy of the state’s own taxes remained low. It remained negative in 2015-16 because of contraction in its GSDP and in 2017-18 because of contraction in the revenue collected from its own taxes.

**Figure 2.9: Total Receipts and their Components as a Percentage of Nominal GSDP**



Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

**Figure 2.10: Buoyancy of Jharkhand's Own Taxes**



### Expenditure of the State

The total expenditure of the state has increased at the compound annual rate of 12.1 per cent between 2014-15 and 2019-20. The total expenditure of the state was about Rs. 40 thousand crores in the year 2014-15 which increased to about Rs. 70 thousand crores by 2019-20 (P). In the current financial year (2020-21) it is estimated to be about 86 thousand crores.

Between 2014-15 and 2019-20 (P), the expenditure on plans/schemes has grown faster than the expenditure on establishment. While the expenditure on establishment grew at an average annual rate (CAGR) of 9.3 per cent, the expenditure on schemes/plans grew at the average annual rate (CAGR) of 14.9 per cent during this period. In the year 2014-15 and 2015-16, the expenditure on plans/schemes made a record growth of about 68 per cent

and 67 per cent respectively. This could become possible because of the payment of arrears of grants-in-aid of the 13th FC in the year 2014-15 and an increase in the state's share in central taxes in the year 2015-16. Thereafter the expenditure on plans/schemes grew at a very modest rate. In the current financial year, expenditure on this head is estimated to grow by about 30 per cent.

The expenditure on Establishment, except for the year 2017-18, increased at a modest rate during this period. It made a big leap in the year 2017-18 mainly because of the hike in salary and pension caused by the implementation of the recommendations of the 7th pay commission. The expenditure on Establishment is estimated to increase by 12.5 per cent in the current financial year.

**Table 2.6: Expenditure of the GoJ (in ₹ Crores)**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (BE)	CAGR (14-15 to 19-20)
I. Establishment (Non-Plan) Expenditure	21296.12	23150.20	25097.46	31736.23	29822.51	33273.03	37445.06	9.3
(i). On Revenue Account of which	19358.98	20759.81	22895.38	28427.24	26647.61	28829.69	34503.15	8.3
(a) Interest Payments	2929.15	3320.08	4172.25	4661.68	4851.97	5307.71	5645.53	12.6
(b) Salary	7381.55	8177.92	8888.96	10789.67	12091.42	12782.34	15542.33	11.6
(c) Pension	3465.32	3990.01	4135.29	5913.24	5988.91	6004.60	7060.19	11.6
(ii). On Capital Account	1937.14	2390.39	2202.08	3308.99	3174.90	4443.34	2941.91	18.1
II. Scheme/Plan Expenditure	18745.38	31287.08	34265.22	35968.05	36065.63	37459.14	48924.94	14.9
(a) On Revenue Account	12435.92	15793.03	22193.66	22523.17	23983.13	27626.94	38812.79	17.3
(b) On Capital Account	6309.46	15494.05	12071.56	13444.88	12082.50	9832.20	10112.15	9.3
<b>Total Expenditure</b>	<b>40041.50</b>	<b>54437.27</b>	<b>59362.68</b>	<b>67704.28</b>	<b>65888.14</b>	<b>70732.17</b>	<b>86370.00</b>	<b>12.1</b>

Source: Department of Planning – cum- Finance, Government of Jharkhand

**Table 2.7: The Year on Year Growth in the Actual Expenditure of the GoJ**

	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	2019-20 (BE)
I. Establishment (Non-Plan) Expenditure	8.7	8.4	26.5	-6.0	11.6	12.5
(i). On Revenue Account of which	7.2	10.3	24.2	-6.3	8.2	19.7
(a) Interest Payments	13.3	25.7	11.7	4.1	9.4	6.4
(b) Salary	10.8	8.7	21.4	12.1	5.7	21.6
(c) Pension	15.1	3.6	43.0	1.3	0.3	17.6
(ii). On Capital Account	23.4	-7.9	50.3	-4.1	40.0	-33.8
II. Scheme/Plan Expenditure	66.9	9.5	5.0	0.3	3.9	30.6
(a) On Revenue Account	27.0	40.5	1.5	6.5	15.2	40.5
(b) On Capital Account	145.6	-22.1	11.4	-10.1	-18.6	2.8
<b>Total Expenditure</b>	<b>36.0</b>	<b>9.0</b>	<b>14.1</b>	<b>-2.7</b>	<b>7.4</b>	<b>22.1</b>

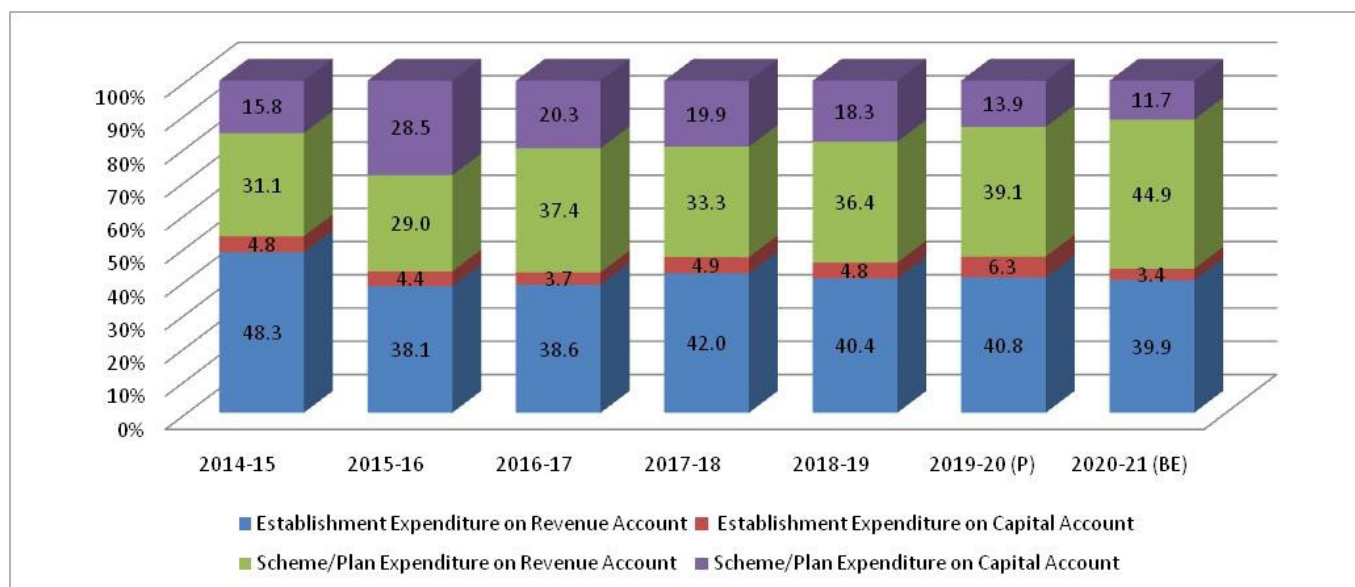
Source: The Department of Planning – cum- Finance, Government of Jharkhand

### Composition of Expenditure

The share of expenditure on Establishment in the total expenditure has decreased and that of the schemes/plans has increased over the years. In the year 2014-15, about 53 per cent of the budgetary resources of the state were spent on Establishment and the remaining 47 per cent on schemes/plans. Gradually, the proportion of total resources spent on Establishment has decreased and

that of schemes/plans has increased. In the year 2019-20 (P), about 47 per cent of the budgetary resources of the state were spent on Establishment and about 53 per cent on schemes/plans. The expenditure on Establishment constitutes only about 43 per cent of the total expenditure in the budget-estimates of 2020-21 and remaining 57 per cent is constituted by expenditure on schemes/plans.

**Figure 2.11: Composition of Expenditure**



Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

**Establishment Expenditure:** The expenditure on Establishment is done on both the revenue and the capital accounts. About 90 per cent of such expenditure is done on the revenue accounts i.e. for the payment of salary, pension, interest and other administrative expenses and the rest of the amount is spent on capital account for the repayment of public debt, payment of loans and advances and expenditure on capital outlay. Between 2014-15 and 2019-20, the Establishment-expenditure on the capital account has grown faster than that on the revenue account. In the last five years while the Establishment-expenditure on the capital account has increased at an average annual rate (CAGR) of 18.1 per cent, that on the revenue account has increased at the rate of 8.3 per cent only. This has happened because of the slow growth in all the three major constituents of the Establishment-expenditure on the revenue account, i.e. interest-payment, salary and pension in the last two years. Since the growth of both the Establishment-expenditure on the revenue-account and that on the capital account has been less than the growth of the total expenditure, the share of both these types of expenditure in the total expenditure of the state has decreased in the last five years.

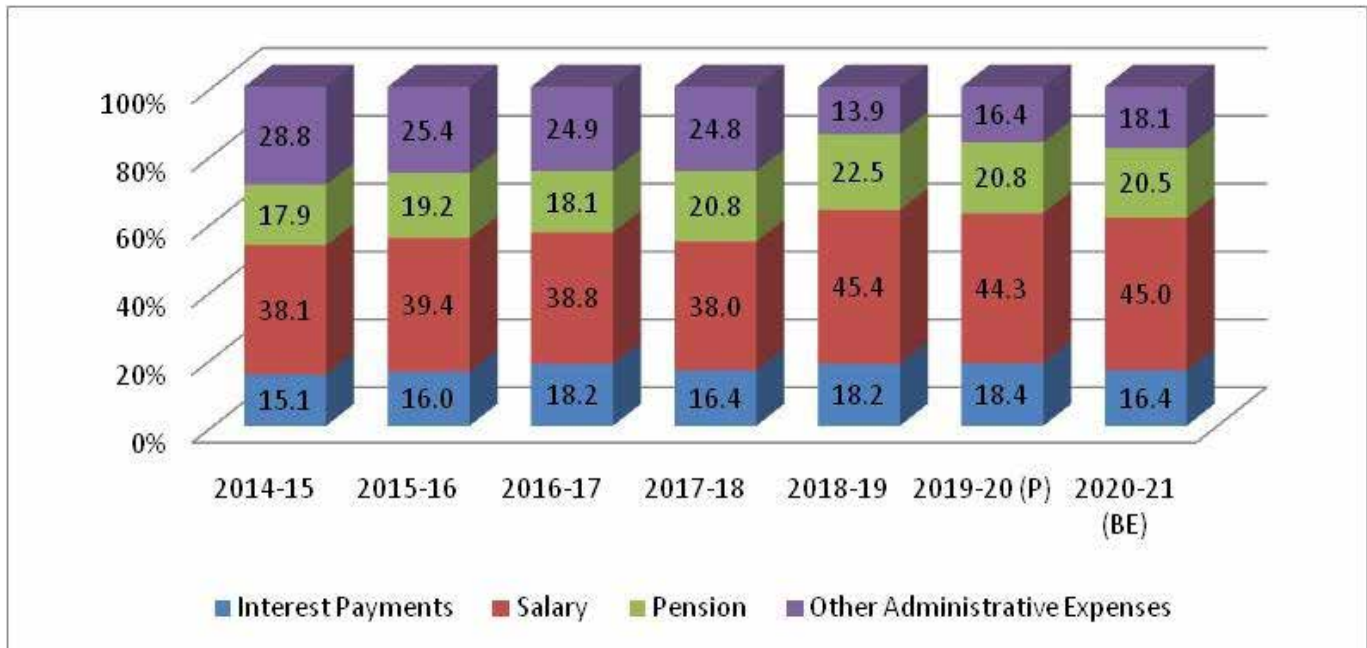
Within the Establishment-expenditure on the revenue account, the share of pension, interest and salary has increased and that of the other administrative expenses has decreased over the years. The share of pension has increased from about 18 per cent in the year 2014-15 to about 21 per cent in the year 2019-20 (P), that of interest has increased from about 15 per cent in the year 2014-15 to about 18 per cent in the year 2019-20 and that of salary has increased from about 38 per cent in the year 2014-15 to about 44 per cent in the year 2019-20. The share of the other administrative expenses, on the other hand, has decreased from about 29 per cent in a year to about 16 per cent in this period. The changes in the relative share of salary, pension, interest and other administrative expenses have occurred because of differences in their growth-rate. While the interest has grown at an annual rate (CAGR) of 12.6 per cent and both the pension and salary have grown at the rate of 11.6 per cent in this period, the other administrative expenses have contracted at the compound annual rate of 3.2 per cent. In the current financial year (2020-21



BE), salary, pension, interest and other administrative expenses have been estimated to grow by 21.6 per cent, 17.6 per cent, 6.4 per cent and 32.1 per cent respectively. As a result, the share of salary, pension, interest and other administrative expenses in the total Establishment-expenditure is estimated to be 45 per

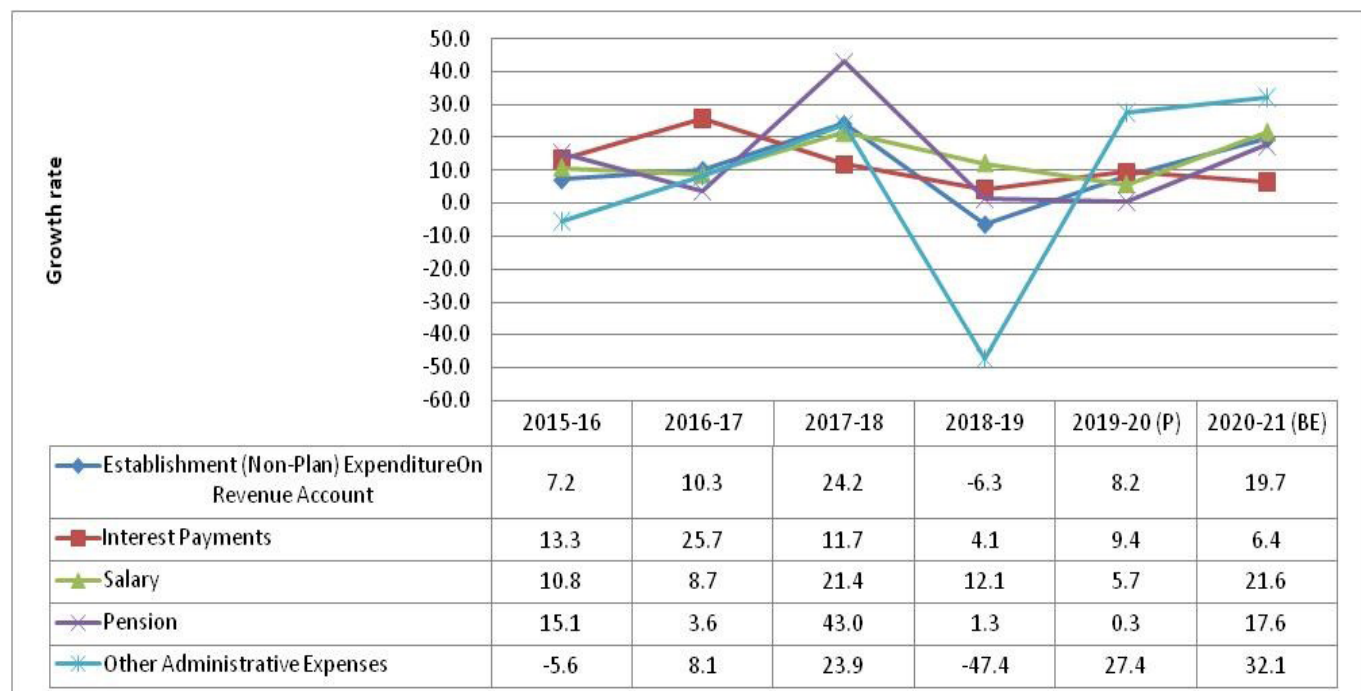
cent, 20.5 per cent, 16.4 per cent and 18.1 per cent respectively. The establishment-expenditure on capital account is estimated to contract by 33.8 per cent. As a result, its share in the total Establishment-expenditure is estimated to decrease from 13.4 per cent in 2019-20 to 7.9 per cent in the current financial year (2020-21 BE).

**Figure 2.12: Composition of the Establishment-Expenditure on Revenue Account**

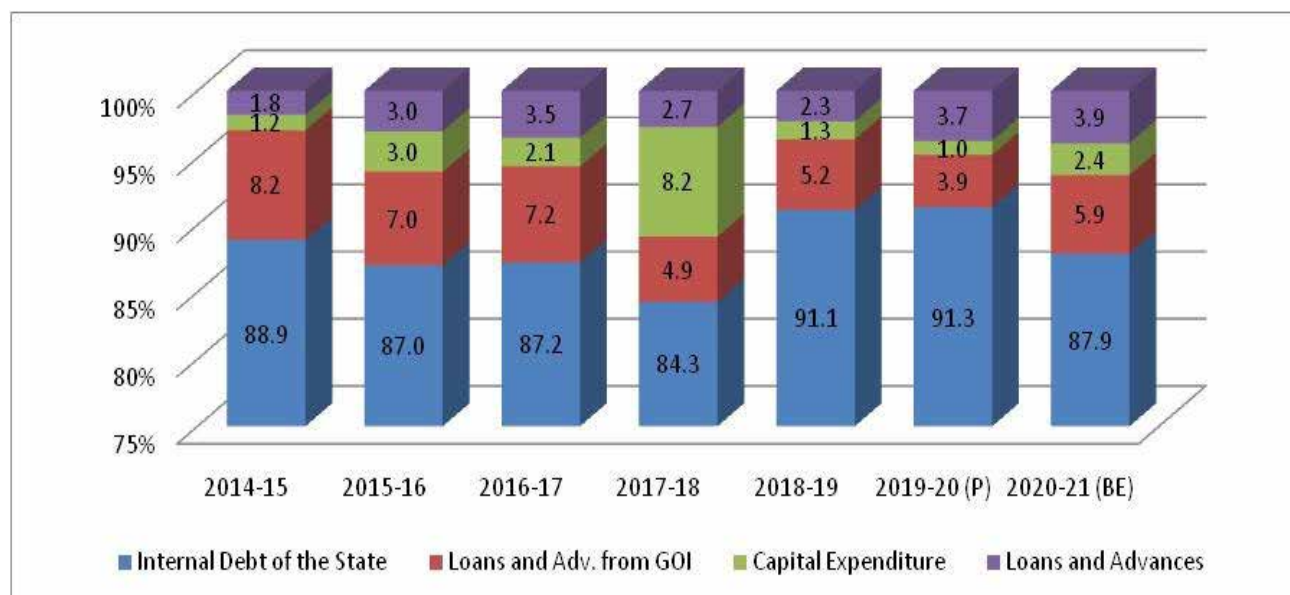
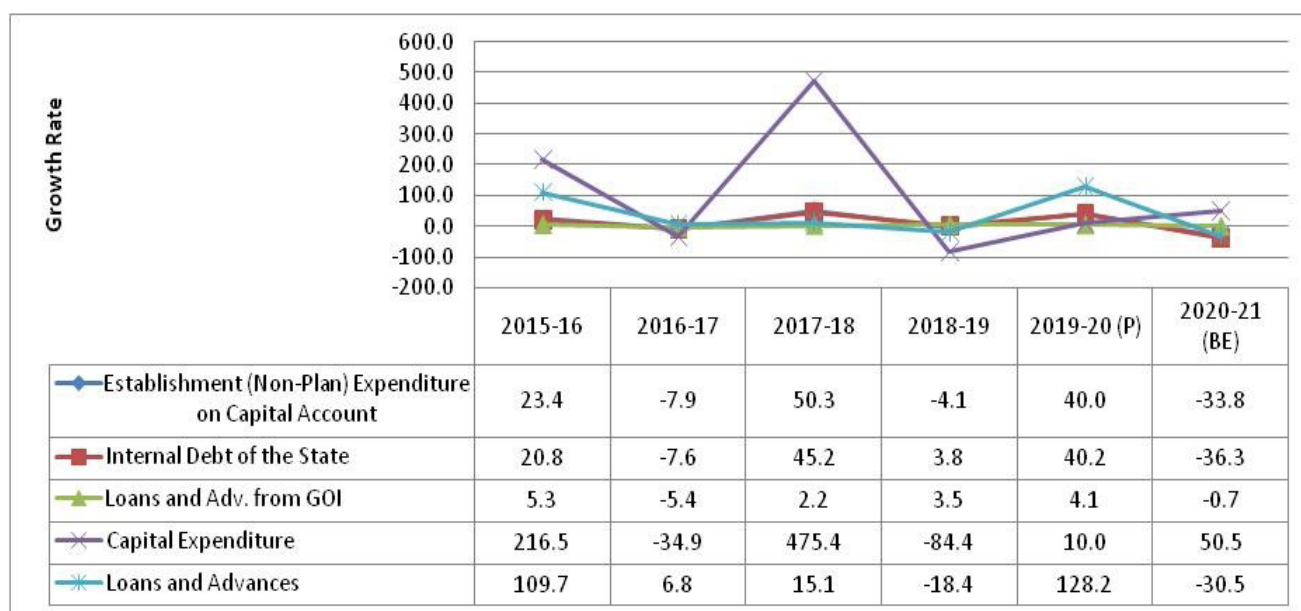


Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

**Figure 2.13: Growth in the Components of the Establishment-Expenditure on Revenue Account**



Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

**Figure 2.14: Composition of the Establishment-Expenditure on Capital Account**

**Figure 2.15: Growth in the Components of the Establishment-Expenditure on Capital Account**


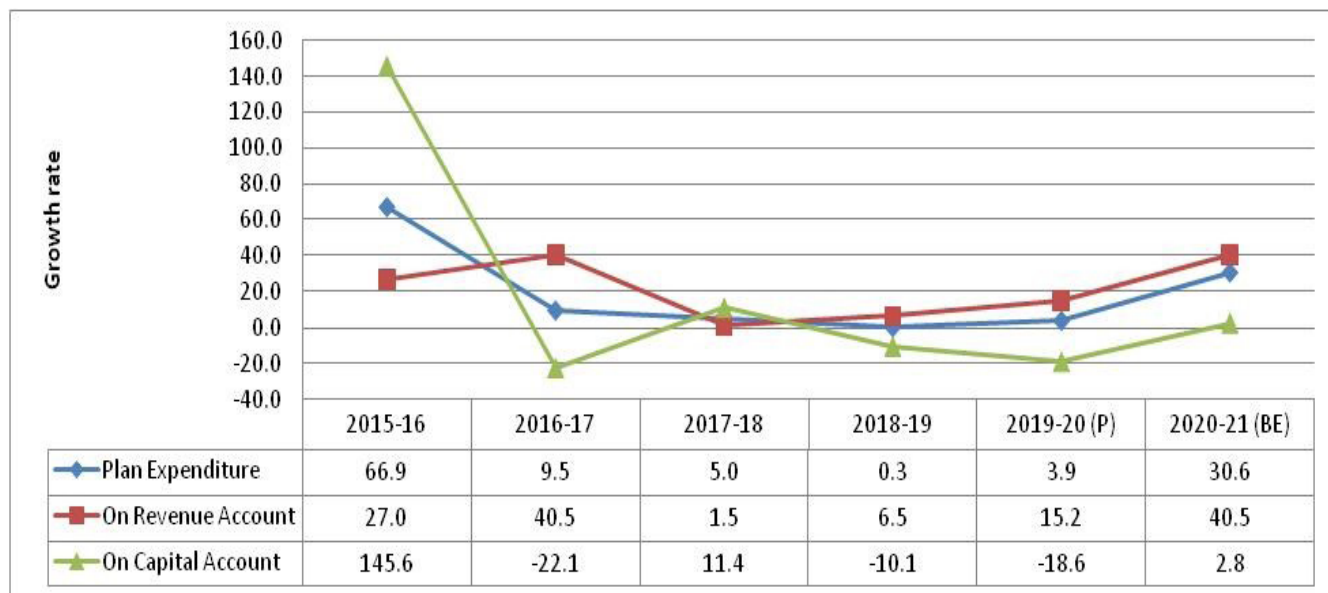
### Expenditure on Plans/Schemes:

The expenditure on plans/schemes grew at an average annual rate of 14.9 per cent between the years 2014-15 and 2019-20. The scheme/plan expenditure on the revenue account increased at an annual rate of 17.3 per cent and that on the capital account increased at the rate of 9.3 per cent in this period. Due to the difference in the growth of these two components of the plan/scheme expenditure, the share of plan/scheme expenditure on the revenue account has increased from about 66 per cent in 2014-15 to about 74 per cent in 2019-20 and that on the capital account has decreased from about 34 per cent in 2014-15 to 26 per cent in 2019-20. In the current

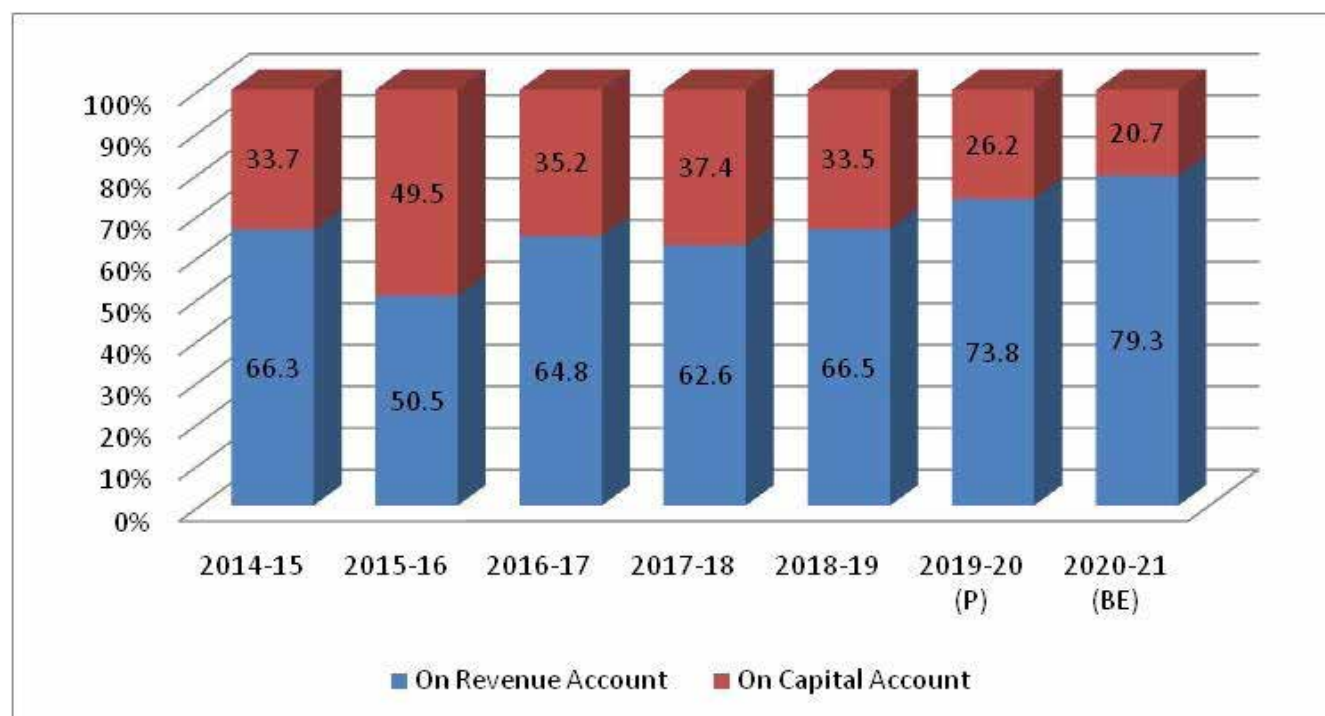
financial year (2019-20), the plan/scheme expenditures on the revenue and capital accounts have been estimated to grow by 40.5 and 2.8 per cent respectively. As a result, their share in the total plan/scheme expenditure is estimated to be about 79 and 21 per cent respectively.

The growth in the plan/scheme expenditure of these two components has fluctuated every year. The growth in plan/scheme expenditures on the revenue account varied between 1.5 per cent (in 2017-18) to 40.5 per cent (in 2016-17) and the growth in plan/scheme expenditures on the capital accounts has varied from (minus) -22.1 (in 2016-17) to 145.6 per cent (in 2015-16).

**Figure 2.16: Growth in the Expenditure on Plan/Schemes**



**Figure 2.17: Composition of the Expenditure on Plan/Schemes**



**The Receipts and Expenditure of the current Financial Year (up to December, 2020)**

Only about 48 per cent of the total targeted receipts of the state have been collected till December, 2020 in the current financial year. Only about 51 per cent of the state’s own taxes and about 50 per cent of the state’s non-taxes have been collected by December, 2020. About 50 per cent of the Grants-in-Aid from GOI and 47 per cent of State’s share in central taxes have been received till

December, 2020. The state has borrowed only about 39 per cent of the targeted amount till December, 2020.

Due to the shortage of receipts of the state, only about 46 per cent of the total allocation could be spent by December, 2020. About 58 per cent of the allocation on establishment, 35 per cent of the allocation of state schemes and about 39 per cent of the allocation on central schemes could be spent by December, 2020.

**Table 2.8: The Receipts of 2019-20 in Rs. Crores (up to December, 2020)**

	Actual up to December 2020	Target	Actual as a per cent of target
State's share in Central Taxes	12312.49	25979.91	47.4
State's Own Taxes	11105.86	21669.50	51.3
State's Own Non-Taxes	7968.34	15839.00	50.3
Grants-in-Aid from GOI	7968.34	15839.00	50.3
Borrowings	4260.34	11000.00	38.7

Source: The Department of Planning – cum- Finance, Government of Jharkhand

**Table 2.9: The Expenditure of 2019-20 in Rs. Crores (up to December, 2020)**

	Actual up to December 2020	Allocation	Actual as a per cent of allocation
Establishment	21896.27	37445.04	58.5
State Scheme	12009.28	34485.72	34.8
Central Scheme	5620.67	14439.24	38.9
Total	39526.22	86370.00	45.8

Source: The Department of Planning – cum- Finance, Government of Jharkhand

### Deficit position of the state

The excess of the expenditure of the state over its total receipts has been financed by the fiscal deficit. The fiscal deficit which was Rs. 6564 crores in the year 2014-15 became Rs.8034 crores in the year 2019-20 (P). It, thus, increased at the average annual rate of 4.1 per cent between 2014-15 and 2019-20. However, the fiscal deficit has mostly remained within the FRBM limits (3 per cent of the GSDP of the state) in this period. Except for the three years from 2015-16 to 2017-18, fiscal deficit has remained less than 3 per cent of the nominal GSDP of the state. In comparison to 2014-15, the fiscal deficit in the year 2015-16 had increased by about 75 per cent. The fiscal deficit this year had become 5.58 per cent of the nominal GSDP of the state. A large part of it however, was because of the loan taken under the UDAY scheme.<sup>1</sup> This year's fiscal deficit was also within the permissible limit of the FRBM after deducting the loan

taken under the UDAY scheme. After making adjustment for the UDAY loan, the fiscal deficit of the state was only 2.9 per cent of its nominal GSDP. The fiscal deficit of the state, however, exceeded the FRBM limits in the following two years, that is, in 2016-17 and 2017-18. The fiscal deficit was 4.31 per cent of the GSDP in the year 2016-17 and 4.42 per cent of the GSDP in the year 2017-18. The fiscal deficit of the state, however, decreased by about 44 per cent in the year 2018-19 from that of the year 2017-18. As a result it became possible to maintain the fiscal deficit of the state within the FRBM limits. In the current financial year also it is estimated to be within the limits of the FRBM.

The primary deficit, which is fiscal deficit minus the payment of interest, except for the year 2015-16 has always remained less than 3 per cent in the state.

Jharkhand has mostly been a revenue-surplus state. As a result, the revenue deficit of the state has mostly remained negative. This revenue-surplus has been used for the creation of capital assets in the state.

1 ₹ 5553.37 crores were taken under the UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2015-16

**Table 2.10: The Budget-Deficit-Position of Jharkhand (in absolute terms in ₹ Crores)**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (BE)
Revenue Deficit (10a-1)	230.34	-4085.52	-1964.89	-1805.62	-5520.96	-1960.51	-1992.81
% of GSDP *	0.11%	-1.98%	-0.83%	-0.67%	-1.86%	-0.60%	-0.63
Effective Revenue Deficit (11-9b) @	-3421.75	-8115.93	-8703.17	-7016.16	-12749.34	-1960.51	-12012.99
% of GSDP *	-1.57%	-3.93%	-3.68%	-2.60%	-4.29%	-0.60%	-3.78
Fiscal Deficit {10-(1+4a+4b+8a+8b)}	6564.00	11521.93	10192.41	11931.25	6628.77	8034.44	8243.04
% of GSDP \$	3.00%	5.58%	4.31%	4.42%	2.23%	2.45%	2.59
Primary Deficit (13-7a)	3634.85	8201.85	6020.16	7269.57	1776.80	2726.73	2597.51
% of GSDP	1.66%	3.97%	2.55%	2.69%	0.60%	0.83%	0.82
GSDP	218525.17	206612.80	236249.72	269816.14	297203.73	328598.01	318117

Source: The Department of Planning – cum- Finance, Government of Jharkhand

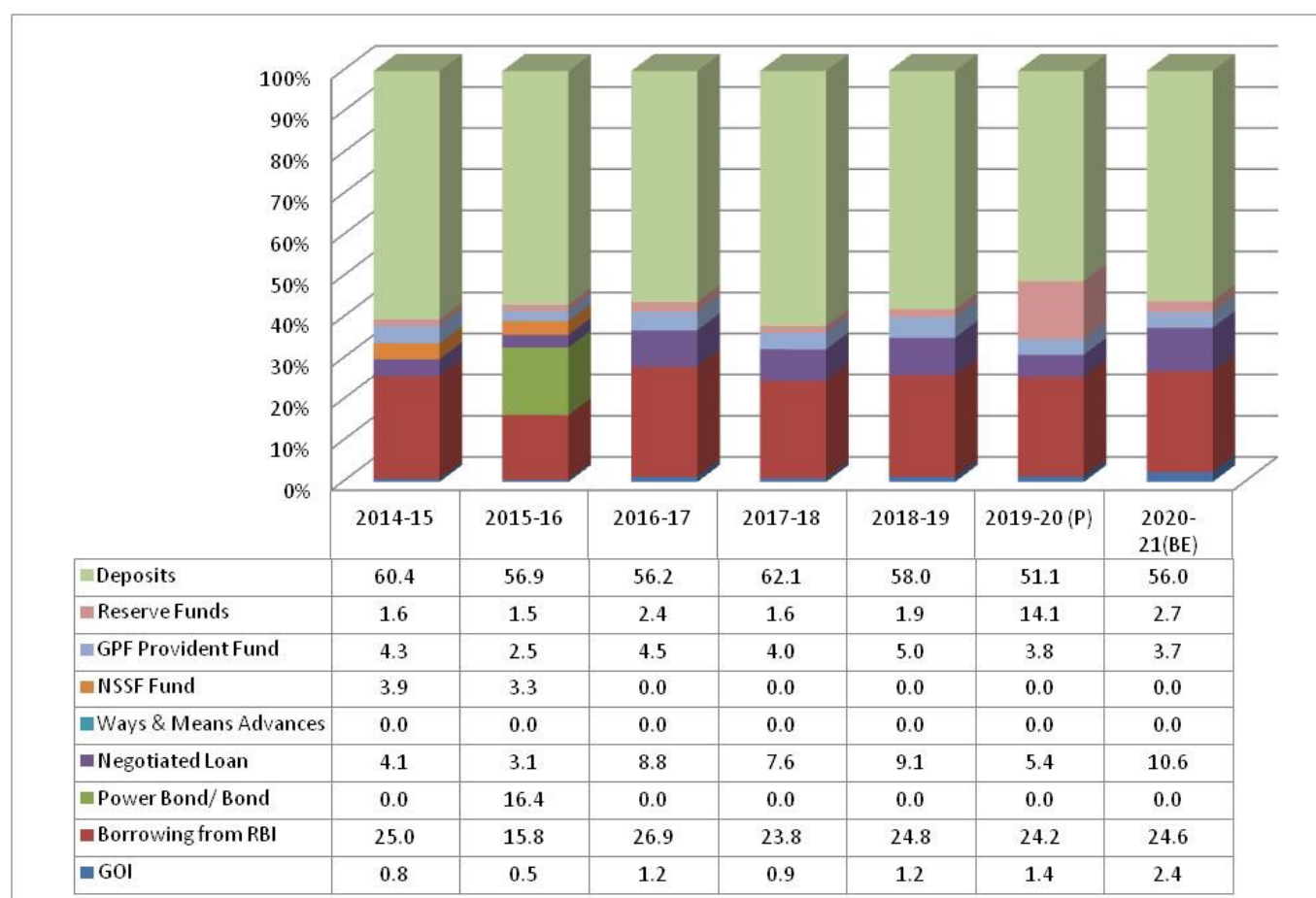
### Liabilities of the state

As a result of the increase in the fiscal deficit, the debt-burden of the state has also increased. Between 2014-15 and 2019-20, the net-borrowing of the state has increased at a compound annual growth rate (CAGR) of about 12.2 per cent. The public-debt which was about 20 per cent of the GSDP in 2014-15 started increasing sharply thereafter. It has remained above 27 per cent since 2015-16. The per capita debt has also almost doubled after 2014-15. It was about Rs. 12 thousand in the year 2014-15, increased to about Rs. 22 thousand in the year 2018-19 and about Rs. 25 thousand in the year 2019-20 (P).

The outstanding liabilities of the state include borrowings from the Government of India and the RBI, negotiated loans, ways and means advances, National Small Saving Fund (NSSF), General Provident Fund (GPF), Reserve Funds, deposits, power bond/bonds etc. The main sources of borrowing for the state are deposits, borrowing from the Reserve Bank of India and negotiated loans. Except for the year 2015-16, they account for more than 80 per

cent of the gross-borrowing of the state. Ways and means advances have been discontinued from 2014-15 and the borrowings from the NSSF have been discontinued from 2016-17. Funds through power bonds had been raised only once in the year 2015-16 under the UDAY scheme.

There is not much variation in the composition of Gross Borrowing in the last six years. Except for NSSF and Ways and Means Advances, the other sources of borrowing have mostly maintained their share in the gross borrowing in the last six years. About 60 per cent of the gross borrowing of the state came from 'Deposits' in the year 2014-15; its share in the gross borrowing was about 51 per cent in the year 2019-20 and is estimated to be about 56 per cent in the year 2020.-21 The share of borrowing from the RBI was about 25 per cent, that of negotiated loans about 4 per cent and that of the GPF provident fund about 4 per cent in the year 2014-15; they were about 24 per cent, 5 per cent and 4 per cent respectively in the year 2019-20. In the current financial year (2020-21 BE) they have been estimated to be 24.6 per cent, 10.6 per cent and 3.7 per cent respectively.

**Figure 2.18: Components of Gross Borrowing (in percentage)**


Source: The Department of Planning cum Finance, GoJ

## Debt Sustainability

The debt-sustainability indicators help in designing the borrowing policy of the state as it measures the debt-servicing-capacity or the ability to redeem the debt. The ratios like net borrowing to the GSDP ratio, the cumulative debt to the GSDP ratio and the interest to the total revenue receipts are quite useful in assessing the trend of debt-sustainability on which the state is moving.

The net borrowing, which is gross borrowing less repayments, has mostly been less than the borrowing ceiling of the state except for the year 2015-16, 2016-17 and 2017-18. In the year 2015-16 the state crossed the borrowing ceiling because of the Rs 5553.37 crore of loans taken under the UDAY scheme. Since the UDAY loan has to be excluded for counting in the borrowing ceiling, the net borrowing comes to be almost within the limit. Though the net borrowing of the state crossed the borrowing ceiling in the years 2016-17 and 2017-18, it came well within the borrowing ceiling of the state in the year 2018-19. In the year 2019-20 it crossed the

borrowing ceiling by a very small margin – by about Rs. 330 crores or 0.1 per cent of the GSDP. In the current financial year (2021-22 BE) it is expected to be well within the borrowing ceiling of the state

A low debt to the GSDP ratio indicates that the economy has sufficient capacity to pay back its debts without incurring further debt. A level of 35 per cent is sustainable for any economy. Jharkhand has kept well within this limit. It was less than 20 per cent of the GSDP till 2014-15. It has exceeded 27 per cent of GSDP since then. In the year 2019-20 (P) it reached 28.7 per cent of the nominal GSDP of the state.

The percentage of interest paid to the total revenue-receipts of the state indicates the debt-servicing-capacity of a state. The interest-payment of the state has remained less than 10 per cent of its revenue receipt since 2014-15. In the current financial year, it is estimated to be about 7.5 per cent of the total revenue receipts of the state.

**Table 2.11: Debt Sustainability and Debt as a Percentage of GSDP)**

Year	Gross Borrowing (₹ in crores)	% of Gross Borrowing to GSDP	Net Borrowing (₹ in crores)	Borrowing Ceiling (₹ in crore)	% of Net Borrowing of GSDP	Cumulative Debt (₹ in crores)	Total Debt / GSDP Ratio	% of Interest to Revenue receipts	Per capita Debt (in ₹)
2014-15	19808.57	9.1	5975.23	6393.00	2.7	43569.09	19.9	9.3	12460
2015-16*	33843.34	16.4	12961.40	6360.00	6.3	56530.49	27.4	8.2	15907
2016-17	19192.63	8.1	10296.48	7993.00	4.4	66826.97	28.3	8.9	18501
2017-18	25205.53	9.3	10268.08	8383.55	3.8	77095.05	28.6	8.8	21038
2018-19	22223.77	7.5	6687.87	8597.95	2.3	83782.92	28.2	8.6	22534
2019-20 (P)	30980.35	9.4	10623.67	10293.77	3.2	94406.59	28.7	9.1	25032
2020-21 (BE)	29298.12	9.2	9243.02	11505.23	3.6	103649.61	32.6	7.5	7.5
CAGR	13.8		22.2			16.3			14.4

Note : \* ₹ 5553.37 crores were taken under the UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2015-16.

Source: The Department of Planning cum Finance, GoJ

**Table 2.12: Year-Wise Debt Position of Jharkhand**

(₹ in crores)

Year (Actual)	GOI	Borrowing from RBI	Power Bonds/ Bonds	Negotiated Loans	Ways & Means Advances	NSSF Fund	GPF Provident Fund	Reserve Funds	Deposits	Gross Borrowing	Repayment (-)	Net Borrowing	Borrowing Ceiling	Cumulative Debt
1	2	3	4	5	6	7	8	9	10	(2 to 10) = 11	12	13	14	15
2014-15	153.21	4950.00	0	814.23	0	772.68	842.56	307.85	11968.04	19808.57	13833.32	5975.25	6393.00	43569.07
2015-16*	165.02	5350.00	5553.4	1044.71	0	1131.55	830.1	521.68	19246.91	33843.34	20881.94	12961.40	6360.00	56530.49
2016-17	234.29	5154.00	0	1693.13	0	0.00	872.6	452.88	10785.73	19192.63	8896.15	10296.48	7993.00	66826.97
2017-18	231.61	5999.65	0	1905.59	0	0.00	1016.42	401.00	15651.26	25205.53	14937.45	10268.08	8383.55	77095.05
2018-19	272.90	5509.00	0	2021.52	0	0.00	1120.04	421.00	12879.31	22223.77	15535.90	6687.87	8597.95	83782.92
2019-20 (P)	425.98	7500.00	0	1667.14	0	0.00	1175.37	4379.02	15832.84	30980.35	20356.68	10623.67	102393.77	94406.59

Year (Actual)	GOI	Borrowing from RBI	Power Bonds/ Bonds	Negotiated Loans	Ways & Means Advances	NSSF Fund	GPF Provident Fund	Reserve Funds	Deposits	Gross Borrowing	Repayment (-)	Net Borrowing	Borrowing Ceiling	Cumulative Debt
2020-21 (BE)	700.00	7200.00	0	3100.00		0.00	1097.67	782.14	16418.31	29298.12	20055.10	9243.02	11505.23	103649.61
CAGR (14-15 to 19-20)	22.7	8.7		15.4			6.9	70.1	5.8	9.4	8.0	12.2	74.1	16.7

Note : \* ₹ 5553.37 crores were taken under the UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2015-16.

Source: The Department of Planning- cum- Finance, GoJ

## Conclusion

The total receipt of the state has increased at an average annual rate (CAGR) of 12.1 per cent between 2014-15 and 2019-20 (P). The revenue receipt has increased at the rate of 13.1 per cent and the capital receipt at the rate of 7.8 per cent between 2014-15 and 2019-20. In the current financial year (2020-21 (BE) the total receipt of the state is estimated to be 22.1 per cent more than the actual receipt of last year. The revenue receipt is estimated to increase by 28.9 per cent and the capital receipt is estimated to contract by 10.2 per cent.

The expenditure of the state has matched the total receipts of the state. Regarding the expenditure on plans/schemes and expenditure on establishment the former has grown faster than the latter. While the expenditure on schemes/plans grew at the average annual rate (CAGR) of 14.9 per cent in this period, the expenditure on establishment grew at an average annual rate (CAGR) of 9.3 per cent only.

The excess of the expenditure of the state over its total receipts has been financed by fiscal deficit. The fiscal deficit of the state has mostly remained within the limits set under FRBM. Except for the three years from 2015-16 and 2017-18, fiscal deficit has remained less than 3 per cent of the nominal GSDP of the state. The fiscal deficit of the state decreased by about 44 per cent in the year 2018-19 from that of the year 2017-18. As a result, it came down 2.23 per cent of the GSDP in 2018-19 and 2.45 per cent of the GSDP in 2019-20. It is estimated to be 2.59 per cent of the GSDP in 2020-21 (BE) - which is well within the FRBM limit.

The net borrowing of the state has remained below the borrowing ceiling of the state. Except for the budget estimates of the current financial year (2020 BE), the debt-GSDP-ratio has remained less than 30 per cent and the interest-revenue-receipt ratio less than 10 per cent. The debt of the state thus, is sustainable.



**Annexure 2.1**

**The Fifteenth Finance Commission and Jharkhand**

The 15<sup>th</sup> Finance Commission (FC-XV) was constituted on 27<sup>th</sup> November, 2017, by the President of India under the Article 280 of the constitution. It primarily had to make recommendations to the Government of India about the principles determining the distribution of the net proceeds of the central taxes between the union and the states (that is the vertical devolution between the union and the states and the criteria for horizontal distribution among the states) and transfer of sector and state specific grants from the centre to the states. Initially, the award period of this commission was the years 2020 to 2026; this was later extended by a year to 2027. It, therefore, submitted two reports. The first report, consisting of recommendations for the financial year 2020-21, was tabled in Parliament in February 2020. The final report with recommendations for the period 2021-26 was tabled in Parliament on February 1, 2021.

In its first report (for the period 2020-21), the 15<sup>th</sup> Finance Commission (FC-XV) reiterated the opinion of the 14<sup>th</sup> Finance Commission (FC-XIV) that tax devolution is a more objective form of transfer of resources from centre to the state as compared to other forms of transfers, which are more discretionary and less progressive. It, therefore, made almost the same rate of vertical devolution as recommended by the FC-XIV. The FC-XIV had recommended the vertical devolution of 42 per cent of the divisible pool. It set aside 1 per cent from this 42 per cent for the special needs of the newly created union territory of Jammu & Kashmir and recommended that 41 per cent of the net proceeds of union taxes (divisible pool) be devolved to the states in the year 2020-21.

The fund vertically devolved was shared among the states on (1) need based criteria (population, area and forest and ecology), (2) equity based criteria (Income distance) and (3) performance based criteria (demographic performance and tax efforts).

The criteria and their weights recommended by FC-XV for horizontal devolution are given below.

**Table: Criteria and Weights Assigned for Horizontal Devolution**

Criteria	Weights (%)
Population (as per 2011 census)	15.0
Area	15.0
Forest and Ecology	10.0
Income Distance	45.0
Demographic Performance	12.5
Tax Efforts	2.5
	100.0

Income distance is the distance of a state’s income from the state with the highest income. A state with lower per capita income will have a higher share to maintain equity among states. In the first report the income of a state was computed as average per capita GSDP during the three-year period between 2015-16 and 2017-18. The demographic performance has been computed by using the reciprocal of the total fertility rate (TFR) of each state, scaled by the population data of Census 2011. States with a lower fertility ratio have scored higher on this criterion. Forest and ecology criterion has been arrived at by calculating the share of the dense forest of each state in the total dense forest of all the states. Tax and fiscal efforts criterion has been measured as the ratio of the average per capita own tax revenue and the average per capita state GDP during the three years between 2014- 15 and 2016-17.

On the basis of these criteria, the share of Jharkhand was decided as 3.313 of the total devolutions to the states.

Besides the sharing of central taxes, the FC-XV recommended grants-in-aid of Rs. 813 crores to the local bodies, Rs. 189 crores for disaster management and Rs. 312 crores for nutrition to Jharkhand for the year 2020-21.

The FC-XV in its final report (2021-2026) recommended the same 41 percent of vertical devolution and the same criteria for sharing of the divisible pool among the states. The base for the calculation of income distance in this report, however, has been changed from the average per capita GSDP during the three-year period between 2015-16 to 2017-18 to the three-year period between 2016- 17 and 2018-19.

The share of Jharkhand in the total devolution of the state decreased to 3.307 in the final report of FC-XV. This happened because of decrease in the weight for forest and ecology, income distance and tax effort. The weight for forest and ecology decreased in the final report because, though both the areas under dense forest in Jharkhand (the numerator for the calculation of this weight) and the area under dense forest of all the states

(the denominator) increased after the first report, the latter (the denominator) increased more than the former. The weight for income distance decreased in the final report because, the average per capita GSDP of the state between 2016-17 and 2018-19 was much higher than that of the period 2015-16 and 2017-18. The weight for the tax effort also decreased in the final report of the FC-XV.

**Table: Criteria and Weights Assigned for Deciding the Share of Jharkhand in the Divisible Pool**

	Population	Demographic performance	Area	Forest and Ecology	Income distance	Tax effort
1 <sup>st</sup> Report	2.80	2.090	2.237	3.172	4.269	2.297
Final Report	2.80	2.090	2.237	3.165	4.262	2.235

Besides the sharing of the central taxes, the FC-XV recommended grants-in-aid of Rs. 3367 crores to the urban local bodies and Rs. 6585 to the rural local bodies, Rs. 4182 crores (Rs. 3138 center's share and Rs.1044 state's share) for disaster management and Rs. 2370 for health, Rs. 179 crores for higher education, Rs. 677 crores as an incentive for agricultural performance,

Rs. 966 crores for PMGSY roads, Rs. 275 crores for Judiciary and Rs. 48 crores for statistics to Jharkhand for the period 2021 to 2026. It also recommended state specific grants of Rs. 1300 crores to Jharkhand for the development of tourism, renewal energy and Baidynath Dham.



# Chapter 3

## Institutional Finance





## Introduction

The financial sector, by mobilizing funds from those who have surplus and allocating them to the productive sectors, plays a crucial role in the growth of an economy. There are 3203 bank-branches in the state which constitute about 2.07 per cent of the bank-branches of the country (at the end of September 2020). The penetration of bank branches in Jharkhand is less than that of the national average. While the national average is 11.8 bank branches per lakh population, there are 9.16 bank branches per lakh population in Jharkhand. The bank branches are mostly concentrated in the districts which are highly urbanized and have industrial, mining and commercial centres. The state is striving hard to improve all the parameters of financial inclusion.

## Development of Financial Infrastructures

The financial sector, by mobilizing funds from those who have surplus and allocating them to the productive sectors, plays a crucial role in growth of an economy. The funds allocated by it help in the utilization of resources of the economy into productive use and thus enable the economy to achieve its potential output. A formal financial sector, especially the banks, provides a safe avenue to the people for keeping their surplus financial resources and thus encourages them to increase their savings. These institutions, on the other hand, increase investment in the economy by making funds accessible to the existing as well as the potential investors at a low cost.

## Networking and Coverage of Financial Institutions

As per the 73<sup>rd</sup> round of State Level Banker's Committee (SLBC) report, there are 3203 bank-branches in the state. There were 3193 bank branches in the state till the end of March 2020. In the current financial year, so far 11 new branches have been opened, while one<sup>1</sup> of the branches has been closed, making a net addition of 10 branches to the total number of branches. The number of branches has increased at the average annual rate (CAGR) of 3.3 per cent between March 2015 (end of financial year 2014-15) and March 2020 (end of financial year 2019-20). The branches of the scheduled commercial banks increased at the average annual rate of 2.9 per cent while those of RRB and Cooperative

banks increased only at the average annual rate of 0.05 and 0.7 per cent, respectively. Within the scheduled commercial banks the branches of the banks in the public sector grew at a much slower rate than those of private sector banks. Among the public sector banks, the branches of lead banks (State Bank of India, Bank of India and Allahabad Bank are the lead banks in the state) grew at the average annual rate of 0.9 per cent and those of the other public sector banks at the rate of 1.7 per cent. The branches of the private sector banks, on the other hand, grew at the average annual rate of 21.3 per cent. A very high average annual increase in the number of branches of private sector banks in this period has been because of an excessively high increase in it in the years 2015-16 and 2018-19. Between the years 2014-15 and 2015-16 the number of branches of the private sector banks increased by about 40 per cent and between the years 2017-18 and 2018-19, it increased by about 57 per cent. A very high increase in the number of branches of the private sector banks at the end of the financial year 2018-19 is because of the categorization of IDBI as a private sector-bank which was formerly a public sector bank. In Jharkhand 53 branches of the IDBI bank, which earlier was a part of the public sector bank, became part of the private sector banks on 21<sup>st</sup> January 2019. Thus, about 21 per cent of the increase in the number of branches of private sector banks in the financial year 2018-19 was because of this re-categorization of the IDBI bank.

The branches of the scheduled commercial banks constitute about 80 per cent of the total number of branches of all the banks. The commercial banks are dominated by the public sector banks. The branches of the 'Lead Banks' and the 'Other Public Sector' banks constitute more than two thirds of the branches of all the banks. The branches of the 'Private Sector Banks' constituted less than 10 per cent of the total number of branches of all the banks till the end of the financial year 2017-18. It crossed this 10 per cent mark from the financial year 2018-19 partly because of the growth in its branches and partly because of the re-categorization of the IDBI bank. Since Regional Rural Banks and Cooperative Banks have made almost a negligible expansion of its branches, their proportion in the total number of bank-branches has decreased over a period of time.

<sup>1</sup> Indian Overseas Bank has closed one of its branches in this financial year.

**Table 3.1: Number of Bank Branches**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (As on 30.06. 20)	CAGR (2014-15 to 2019-20)
Lead Banks	1158	1186	1230	1210	1200	1212	1218	0.9
Other Public Sector Banks	836	940	959	977	1025	910	910	1.7
Private Sector Banks	162	227	246	257	404	425	425	21.3
<b>Scheduled Commercial Banks</b>	<b>2156</b>	<b>2353</b>	<b>2435</b>	<b>2444</b>	<b>2629</b>	<b>2547</b>	<b>2553</b>	<b>2.9</b>
Regional Rural Banks	442	442	443	443	443	443	443	0.05
Cooperative Bank	113	113	117	117	117	117	117	0.7
Small Finance Banks						86	90	
<b>Total</b>	<b>2711</b>	<b>2908</b>	<b>2995</b>	<b>3004</b>	<b>3189</b>	<b>3193</b>	<b>3203</b>	<b>3.3</b>

**Table 3.2: Proportion of Bank Branches by Types of Bank**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (As on 30.06. 20)
Lead Banks	42.7	40.8	41.1	40.3	37.6	38.0	38.0
Other Public Sector Banks	30.8	32.3	32.0	32.5	32.1	28.5	28.4
Private Sector Banks	6.0	7.8	8.2	8.6	12.7	13.3	13.3
<b>Scheduled Commercial Banks</b>	<b>79.5</b>	<b>80.9</b>	<b>81.3</b>	<b>81.4</b>	<b>82.4</b>	<b>79.8</b>	<b>79.7</b>
Regional Rural Banks	16.3	15.2	14.8	14.7	13.9	13.9	13.8
Cooperative Bank	4.2	3.9	3.9	3.9	3.7	3.7	3.7
Small Finance Banks	0.0	0.0	0.0	0.0	0.0	2.7	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**Box 3.1: Privatization of IDBI Bank**

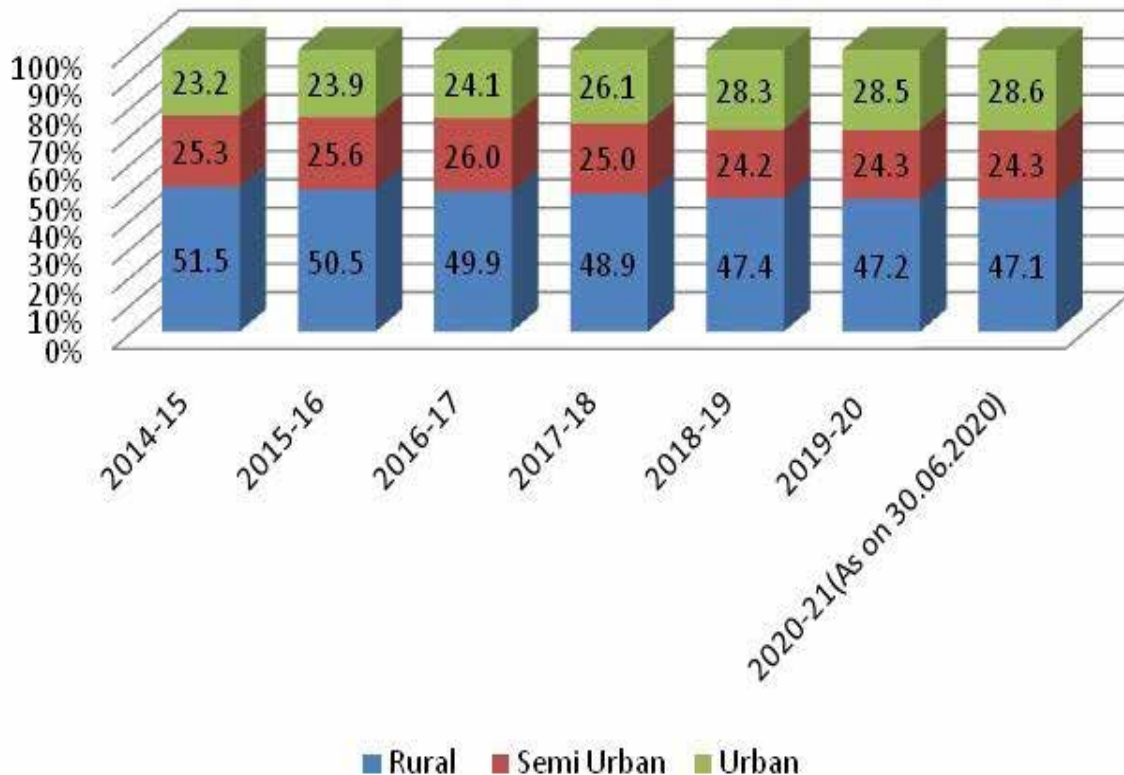
IDBI (Industrial Development Bank of India) was established in 1964 as a Development Financial Institution (DFI) under an Act of the Parliament of India. At that time it was established as a wholly owned subsidiary of the RBI. In 1976 the ownership of IDBI was transferred to the Government of India. It was the apex Industrial Development Bank, which used to coordinate the activities of institutions engaged in financing, promoting and developing industry in India.

In line with the financial sector reforms, IDBI transformed itself into a commercial bank. It was incorporated as a ‘scheduled bank’ by the RBI in September 2004. It started operating as a public sector commercial bank from 1st October, 2004.

RBI, through a press-release, dated 14th March 2019, categorized IDBI as a ‘private sector bank’ with effect from 21st January, 2019. Its equity shares are listed on Bombay Stock Exchange and the National Stock Exchange of India. 51 per cent of its shares are held by the LIC of India and 46.6 per cent by the Government of India.

There is a plan to increase private participation in the ownership and management of the IDBI in the current financial year. In her budget speech of 2020-21, the finance minister Mrs. Nirmala Sitaraman had said that the government would sell its entire stake in IDBI Bank to private players. There is wide media speculation that if not all, a large part of the Government of India’s stake in IDBI Bank will be disinvested to private players in the current or the coming financial year.

**Figure 3.1: Composition of Bank-Branches**

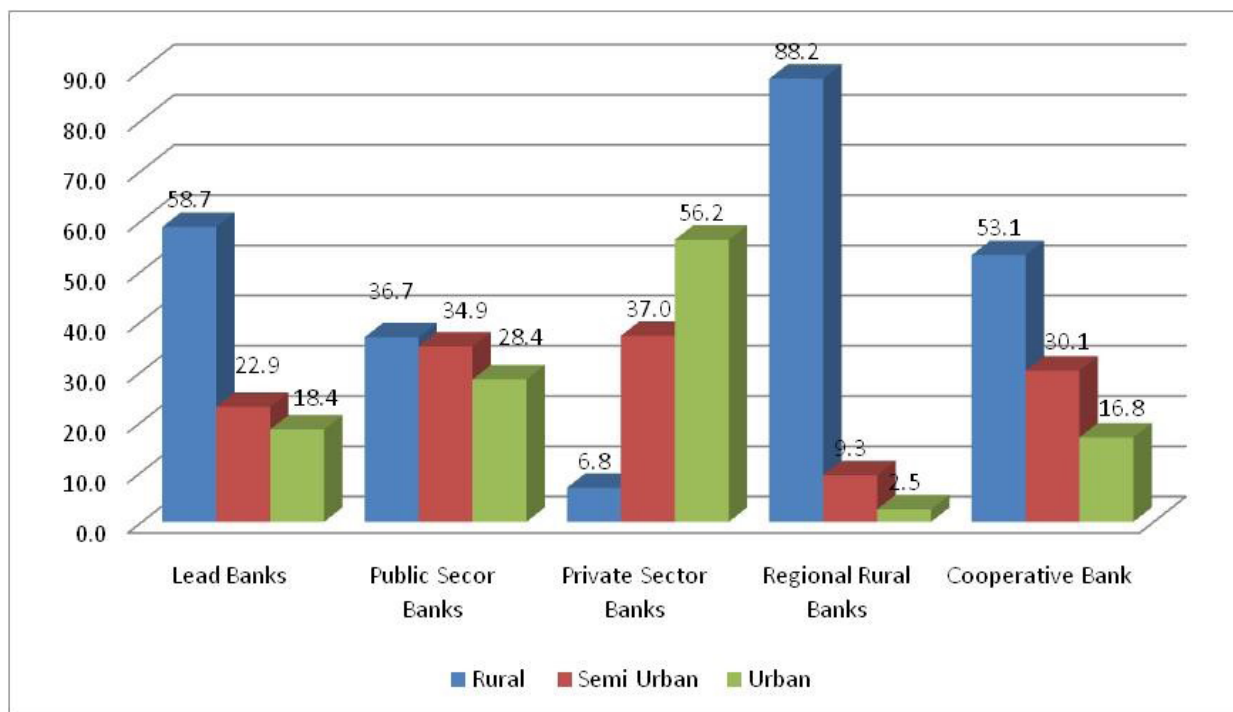




This change in the proportion of the rural, semi-urban and urban branches has occurred mainly because of the increase in the proportion of the urban branches and decrease in the proportion of the semi-urban and the rural branches of the lead banks and the other public sector banks. In the year 2014-15, the proportion of the urban branches of the lead banks was 18 per cent, that of the rural branches was 59 per cent and the semi urban branches was 23 per cent. The proportion of the urban branches of these banks increased to 21 per cent while those of the rural branches decreased to 57 per cent and

the semi-urban branches to 22 per cent in the year 2019-20. Similarly, while the proportion of the urban, semi-urban and rural branches of other public sector banks was 28 per cent, 35 per cent and 37 per cent respectively in the year 2014-15, they changed to 37 per cent, 31 per cent and 32 per cent respectively in the year 2019-20. The proportion of the rural branches of the private sector banks has increased and those of the regional rural banks and cooperative banks have remained almost the same between 2014-15 and 2019-20.

**Figure 3.2: Composition of Bank Branches by the types of Banks in the year 2014-15**

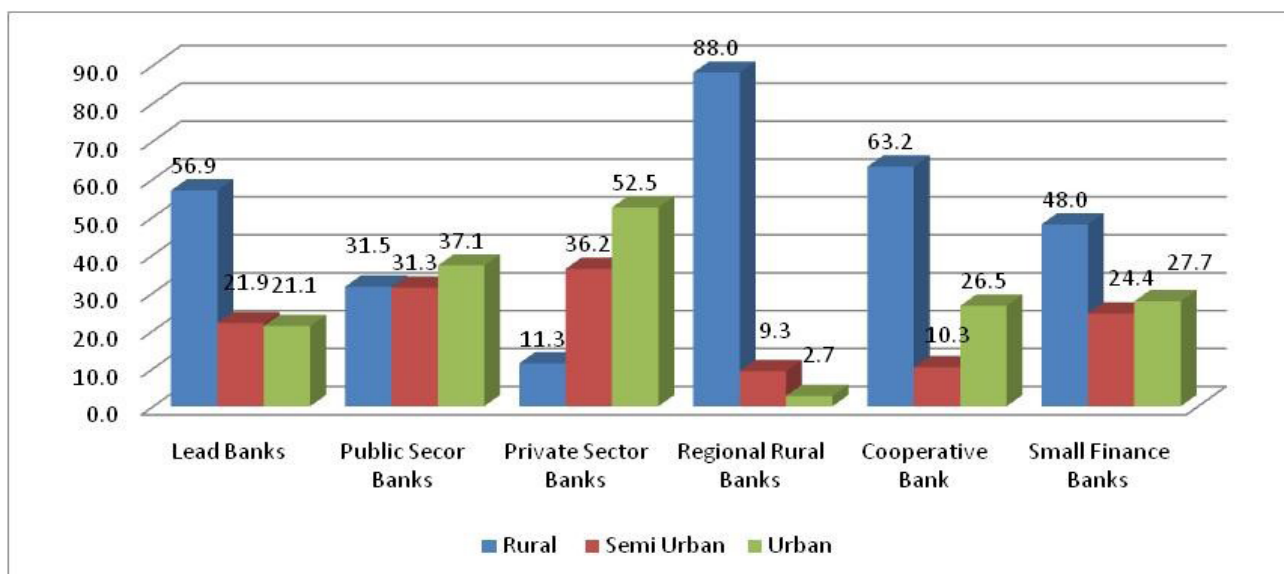


Most of the branches of the banks are in the rural areas. In 2014-15, while about 51 per cent of the bank-branches were in the rural areas, about 25 per cent were in the semi-urban areas and the remaining about 23 per cent were in the urban areas. Over the years, the proportion of branches located in the urban areas has increased while proportions of those located in the rural and the semi-urban areas have decreased. By 31<sup>st</sup> March, 2020 (Financial year 2019-20) while the proportion of the urban branches has increased to about 28 per cent, the proportion of the rural branches has decreased to about 47 per cent and that of the semi urban branches has decreased to about 24 per cent.

This change in the proportion of the rural, semi-urban and urban branches has occurred mainly because of the increase in the proportion of the urban branches and decrease in the proportion of the semi-urban and the

rural branches of the lead banks and the other public sector banks. In the year 2014-15, the proportion of the urban branches of the lead banks was 18 per cent, that of the rural branches was 59 per cent and the semi urban branches was 23 per cent. The proportion of the urban branches of these banks increased to 21 per cent while those of the rural branches decreased to 57 per cent and the semi-urban branches to 22 per cent in the year 2019-20. Similarly, while the proportion of the urban, semi-urban and rural branches of other public sector banks was 28 per cent, 35 per cent and 37 per cent respectively in the year 2014-15, they changed to 37 per cent, 31 per cent and 32 per cent respectively in the year 2019-20. The proportion of the rural branches of the private sector banks has increased and those of the regional rural banks and cooperative banks have remained almost the same between 2014-15 and 2019-20.

**Figure 3.3: Composition of Bank Branches by the types of Banks in the year 2019-20**



The bank-branches are mostly concentrated in the districts which are highly urbanized and have industrial, mining and commercial centres. About 40 per cent of the bank-branches are located in four districts of the state viz. Ranchi, Bokaro, Dhanbad and East Singhbhum.

All of them have a very high concentration of mining, industrial and commercial activities. Ranchi, the capital of the state, has the highest concentration of the bank-branches – about 15 per cent of the total number of bank-branches is located in this district.

**Table 3.3: District Wise Proportion of Bank Branches (as on 30.06.2020)**

Percentage of Bank Branches	Names of Districts
Above 14 %	Ranchi
10% to 14%	East Singhbhum
8% to 10%	Dhanbad,
5% to 8%	Bokaro, Giridih
3% to 5%	Deoghar, Dumka, Hazaribagh, Ramgarh, Godda, Palamau, Saraikela, West Singhbhum
1% to 3%	Chatra, Garhwa, Gumla, Jamtara, Koderma, Pakur, Sahibganj, Simdega, Lohardaga, Latehar, Khunti,

Source: 73<sup>rd</sup> Round of SLBC Report

### ATMs

These banks, as per the 73<sup>rd</sup> round of SLBC report, have 3262 ATMs, out of which 1742 ATMs are on the site and 1520 ATMs are off the site. The number of ATMs has grown at the average annual rate of 4.9 per cent between March 2015 (end of the financial year 2014-15) and March 2020 (end of the financial year 2019-

20). Between March 2015 and March 2018 the number of ATMs expanded at the average annual rate of 10.5 per cent but between March 2018 and March 2020 its number contracted at the average annual rate of 2.9 per cent. Between March 2020 and June 2020 the number of ATMs has further contracted by 1.7 per cent.

**Table 3.4: Number of ATMs**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (Upto 30.06.2020)	CAGR
Number of ATMs	2608	2780	3469	3517	3402	3318	3262	4.9
Annual growth		6.6	24.8	1.4	-3.3	-2.5	-1.7	

Source: SLBC Report of respective rounds.

The ATMs are mostly concentrated in the districts which are highly urbanized and have industrial, mining and commercial centres. Ranchi, the capital of the state, has the highest concentration ATMs – about 22 per cent of

the total number of ATMs is located in this district. The districts of Simdega, Lohardaga, Latehar and Khunti, on the other hand, has less than 1 per cent of the ATMs.

**Table 3.5: District Wise Proportion of ATMs (as on 30.06.2020)**

Percentage of ATMs	Names of Districts
Above 20 %	Ranchi
10% to 20%	Dhanbad, East Singhbhum
5% to 10%	Bokaro, Hazaribagh
3% to 5%	Deoghar, Giridih, Ramgarh
1% to 3%	Chatra, Dumka, Garhwa, Godda, Gumla, Jamtara, Koderma, Pakur, Palamau, Sahibganj, Saraikela, West Singhbhum
less than 1%	Simdega, Lohardaga, Latehar, Khunti

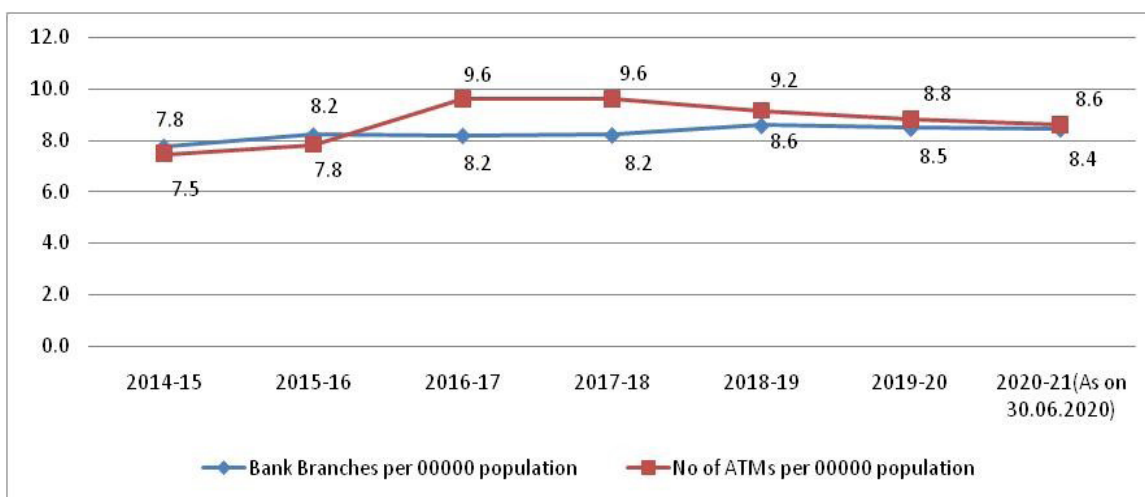
Source: 73<sup>rd</sup> Round of SLBC Report

**The Coverage of Bank Branches and ATMs**

The coverage of bank branches and the ATMs has increased over the years. The number of bank branches per one lakh population was 7.8 and the number of ATMs per one lakh population was 7.5 by the end of the

financial year 2014-15. By the end of the financial year 2019-20, their numbers have increased to 8.5 branches and 8.8 ATMs per one lakh population.

**Figure 3.4: Ratio of Bank Branch/ATM to Per Lakh Population**



Source: SLBC Jharkhand Reports and Projected Population of Jharkhand by DES, Jharkhand.

**Deposit, Credit and the C-D Ratio**

The total amount of deposits in the banks at the end of the financial year 2014-15 were Rs. 1,39,956 crores. It grew at an average annual rate of 9.9 per cent between the financial year 2014-15 and 2019-20. The total amount of deposits became Rs. 2,18,101 crores at the end of the financial year 2019-20. Till September 2020 of the current financial year, it has grown by about 8.4 per cent. The banks had provided a total credit of Rs. 65,842 crores by the end of the financial year 2014-15.

The credit provided by the banks grew at an average annual rate of 7.9 per cent between the financial year 2014-15 and 2019-20. The total credit provided by the banks, thus, became Rs. 96,107 crores by the end of financial year 2019-20. In the current financial year, up to September 2020, it has contracted by Rs. 1,613 crores – a decline by (-) 1.68 per cent.

There has always been a wide gap between the deposit and credit in the economy. The deposit has remained more than double the credit in the economy. The gap between

the two has varied between 113 per cent and 157 per cent during the period from the year 2014-15 to 2020-21. This

wide gap between the two is an indication of the low credit-absorptive capacity of the state's economy.

**Table 3.6: Deposit and Credit of the Banks as on 31<sup>st</sup> March of each Financial Year**

(Rs. in crores)

Item	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (Up to Sept.)
<b>Deposits</b>	139956	151224	186178	198114	218101	224364	243119
<b>Credits</b>	65842	70728	81040	85519	95562	96107	94494
<b>C-D of Banks</b>	47.04	46.77	43.53	43.17	43.82	42.84	38.87
<b>C-D Ratio in %, including RIDF and credit as per the place of utilization</b>	61.51	60.61	57.57	60.31	57.33	55.63	50.05

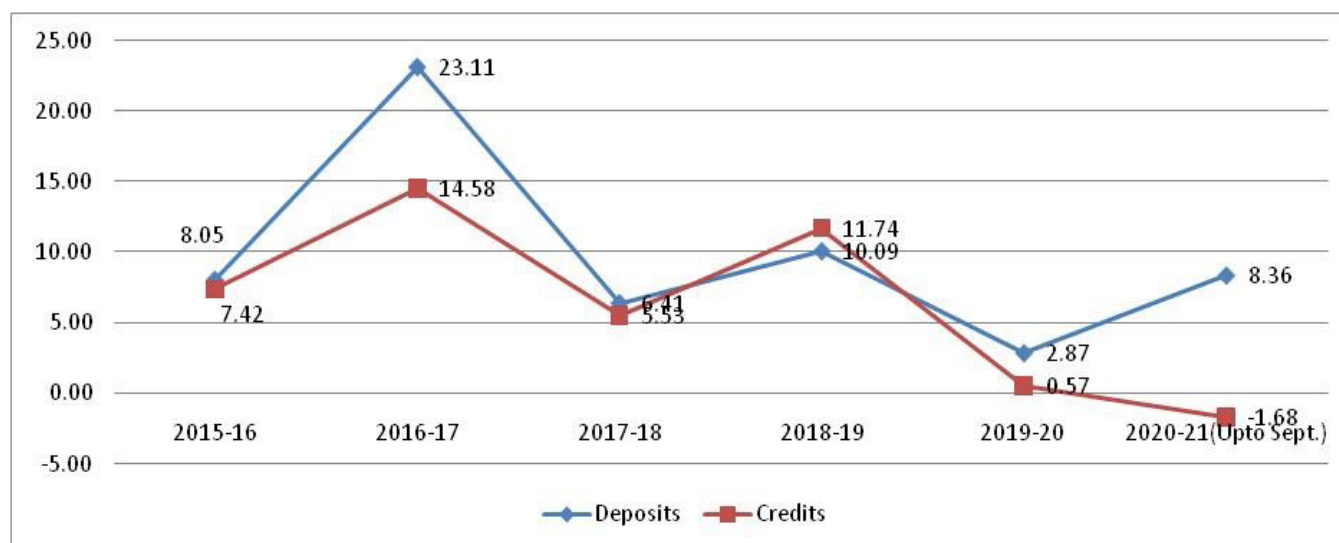
The credits provided by the banks used to be less than the deposits received by them. Therefore, the credit deposit (C-D) ratio would be less than 100 per cent. In the year 2014-15, the credit deposit ratio of the banks (without including RIDF and credit at place of utilization) was 47 per cent and after including RIDF and credit at place of utilization was 61.5 per cent. The credit has mostly grown at the rate slower than the growth of the deposit. As a result, the credit-deposit ratio has shown a declining trend over the years. The credit-deposit ratio of the banks (without including RIDF and credit at the place of utilization) decreased from about 47 per cent in the year 2014-15 to about 43 per cent in the year 2016-17. It has continued almost at this level till 2019-20. In the current financial year, up to September 2020, the banks could create credit only to the tune of 38 per cent of their deposits. The credits and deposits of the banks grew almost at the same rate in the years 2015-16, 2017-18 and 2018-19. As a result, the C-D ratio of the banks remained almost the same between the years 2014-15 and 2015-16

and between the years 2016-17 and 2018-19.

The C-D ratio, after including RIDF and credit at the place of utilization has also declined over the years; from 61.5 per cent in the year 2014-15 to 55.6 per cent in the year 2019-20 and 50.5 per cent by the end of the second quarter of the current financial year. It has mostly remained less than the RBI bench mark of 60 per cent. In four of the last seven years between 2014-15 and 2020-21, it has remained less than 60 per cent.

The slowdown of the national economy since the last one year and the COVID-19 pandemic of the current financial year have dried up the investment-opportunities in the country. The state of Jharkhand is no exception. In the absence of ample safe, secured and profitable investment opportunities, the prospective investors have preferred to keep their money in the form of deposits in the banks. As a result, in the current financial year (2020-21), though the deposit continued growing unabated, the credit absorptive-capacity of the economy remained subdued.

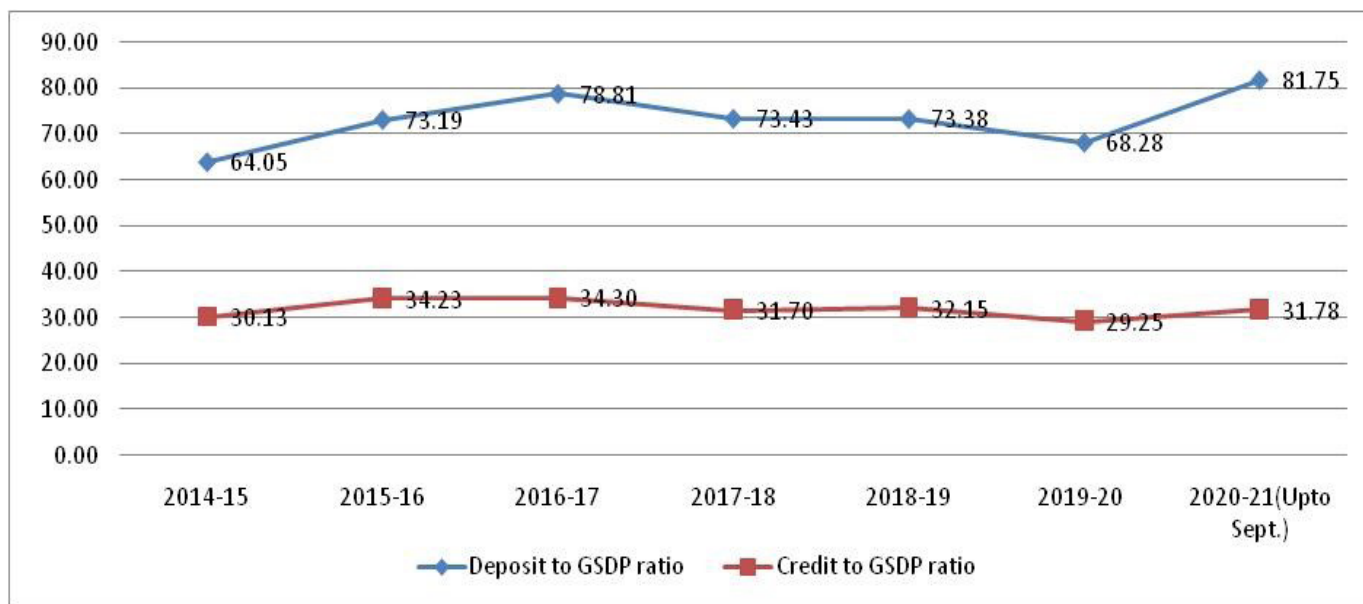
**Figure 3.5: Annual Growth in Deposits and Credits of the Banks**



The deposit and credit of an economy is related with the Domestic Product (GDP/ GSDP) of the economy. They both influence and get influenced by the GDP/GSDP of the economy. They, therefore, can be evaluated through the ratios of deposits to GSDP and credit to GSDP. As in other economies, in Jharkhand also, the Deposit to GSDP ratio is higher than the ratio of credit to GSDP. The gap between the two, however, is very high. In the year 2014-15, the deposit to GSDP in the state was about 64 per cent while the credit to GSDP was only about 30 per cent. In the years 2015-16, both the deposit to GSDP and credit to GSDP ratios increased to about 73 per cent and 34 per cent respectively. Though, both the deposit and the credit increased in this year by about 8 and 7 per cent respectively, the increase in their ratios to GSDP was also because of a sharp contraction in the GSDP of

the state which is the denominator of these ratios. The GSDP at current prices of the state had contracted by 5.5 per cent in 2015-16. The two ratios, the deposit to GSDP and credit to GSDP, remained above 73 and 31 per cent respectively between 2016-17 and 2018-19. Both the deposit to the GSDP ratio and credit to GSDP ratio after a fall in the year 2019-20 are estimated to rise sharply in the current financial year (2020-21). Increase in these two ratios in the current financial year is primarily because of sharp contraction in the GSDP of the state in this financial year (2020-21). The gap between the two, however, has remained high throughout this period and has increased in the current financial year. The deposit to GSDP-ratio remained almost 130 per cent higher than the credit to GSDP-ratio between 2016-17 and 2019-20 and more than 150 per cent in 2020-21.

**Figure 3.6: Ratios of Deposit to GSDP, Credit to GSDP and Credit to Deposit (in %)**



Source: SLBC Jharkhand Reports and GSDP of Jharkhand by DES, Jharkhand.

## Deposits

The deposits of the banks, as mentioned above, have grown at the average annual rate of 9.9 per cent between the years 2014-15 and 2019-20. The deposits in the Lead Banks and the RRBs grew at an average annual rate of about 10 per cent. This, in the ‘Other Public Sector Banks’ at the rate of about 5 per cent, in private sector banks at the rate of about 21 per cent and in cooperative

banks at the rate of 13 per cent. The Small Finance Banks, which is a new entity, has also started attracting deposits on a large scale. The total deposits in these banks at the end of March 2019 was Rs. 210 crores only. By the end of September 2020, it became equal to 705 crores. The deposits in these banks, thus, grew at the rate of more than 100 per cent per annum.

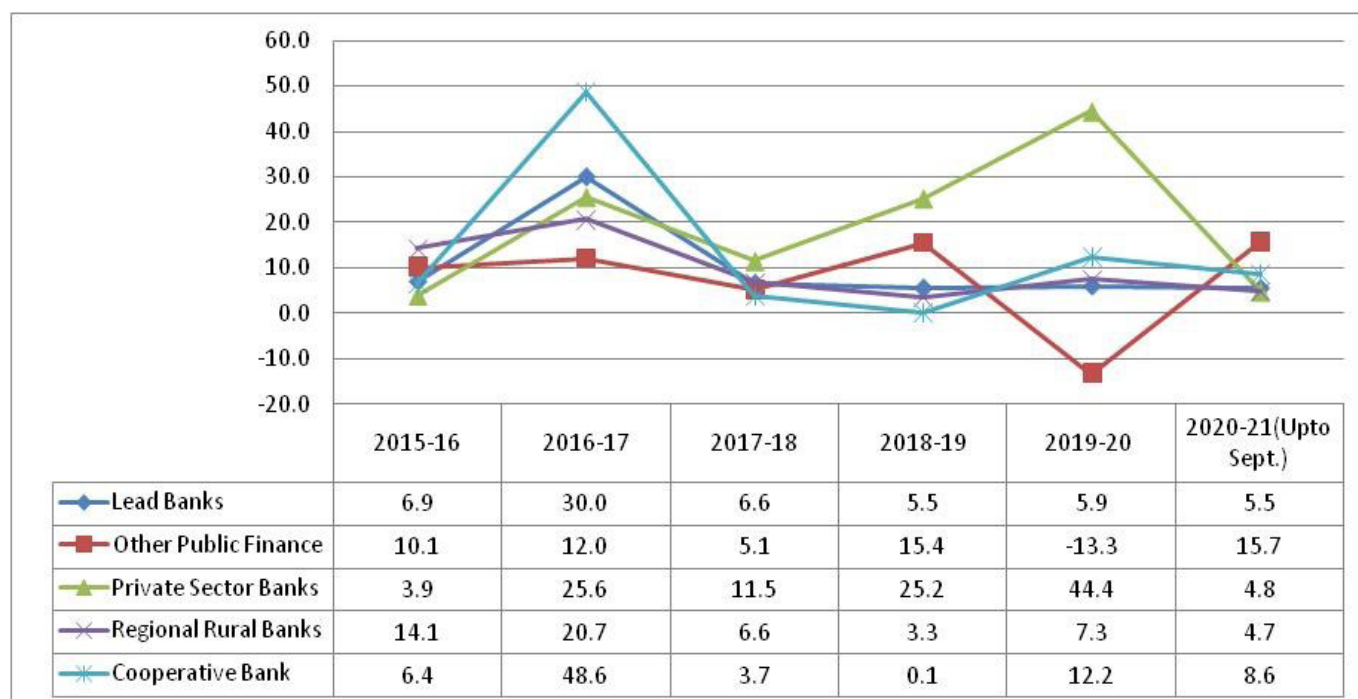
**Table 3.7: Deposits by types of banks**

(In Rs. Crore)

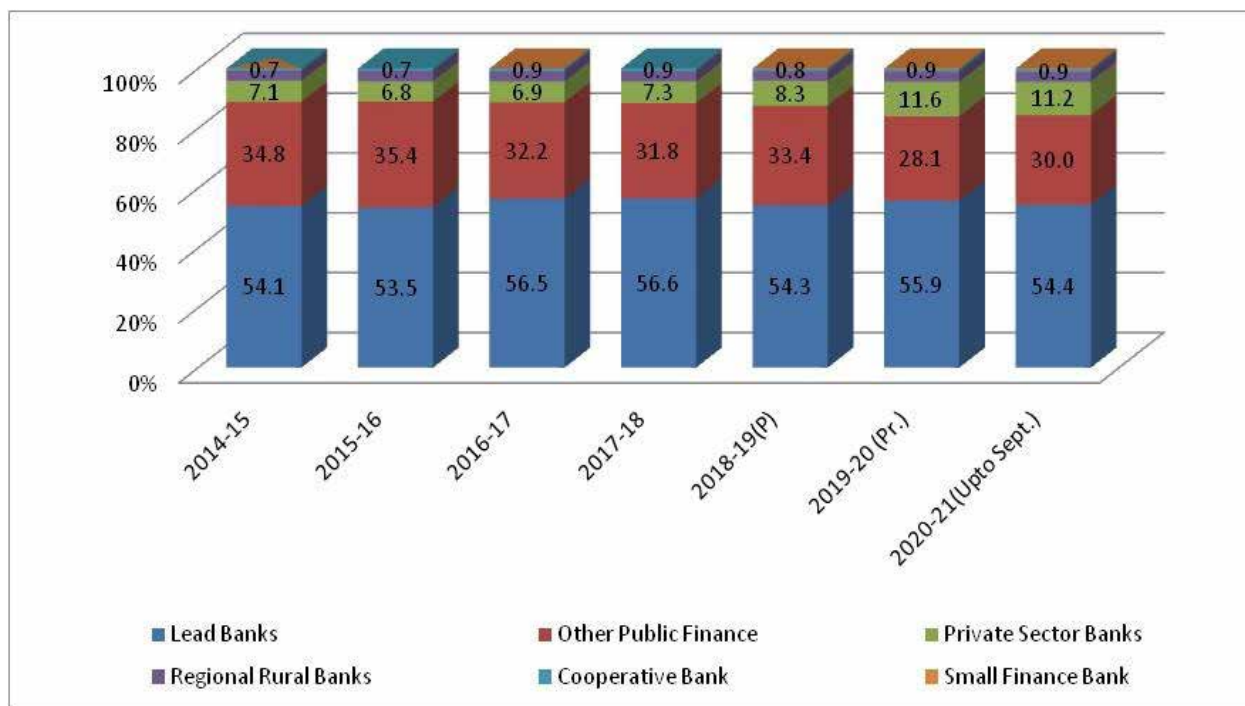
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (Up to Sept.)	CAGR
Lead Banks	75,695	80,951	1,05,209	1,12,127	1,18,322	1,25,357	1,32,190	10.6
Other Public Finance	48,663	53,569	60,002	63,054	72,774	63,059	72,948	5.3
Private Sector Banks	98,98	10,281	12,909	14,391	18,024	26,024	27,261	21.3
Regional Rural Banks	4,664	5,321	6,419	6,842	7,069	7,587	7,941	10.2
Cooperative Banks	1,036	1,103	1,639	1,700	1,701	1,910	2,074	13.0
Small Finance Banks	0	0	0	0	210	427	705	
<b>Total</b>	<b>1,39,956</b>	<b>1,51,225</b>	<b>1,86,178</b>	<b>1,98,114</b>	<b>2,18,101</b>	<b>2,24,364</b>	<b>2,43,119</b>	<b>9.9</b>

Despite a very high growth of deposits in the ‘Private Sector Banks’ and ‘Small Finance Banks’, the ‘Public Sector Banks’ have made the major contribution to the overall growth in the deposits. This is because they attract a large percentage of total deposits of the state. The ‘Lead Banks’ and ‘Other Public Sector Banks’, together, attract more than 80 per cent of the total deposits of the state. However, because of a higher growth in the deposits in the private sector banks, in comparison to

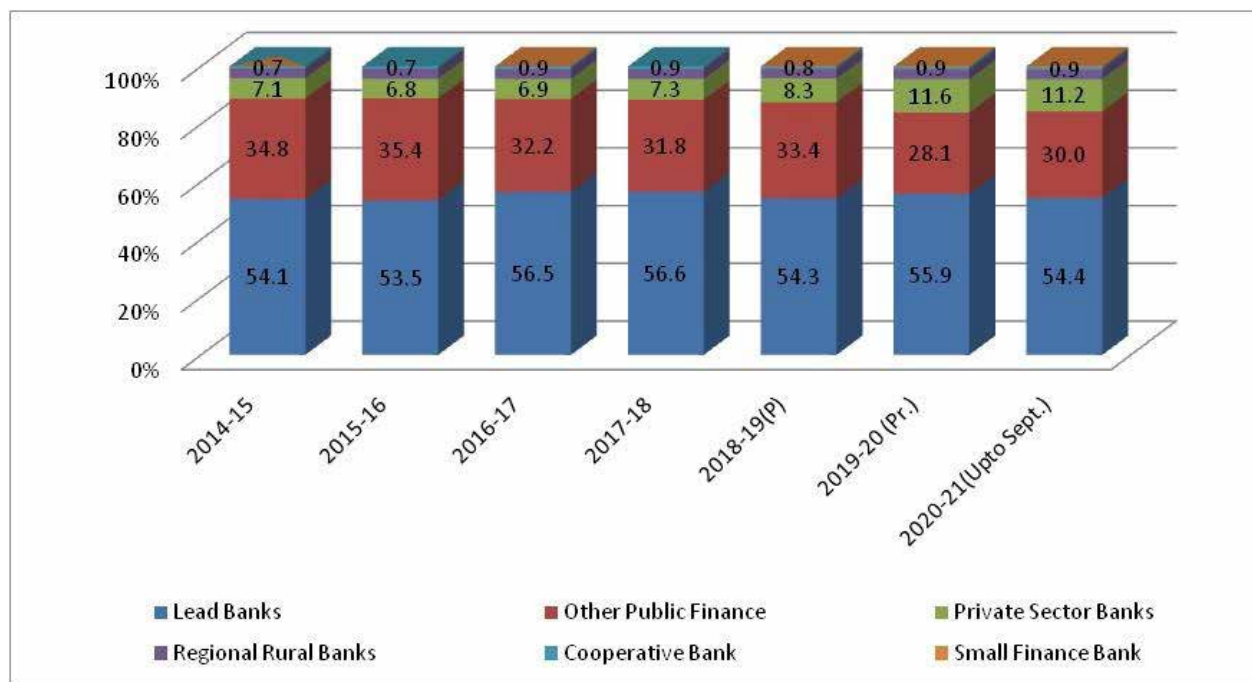
the public sector banks, the share of the public sector banks in the total deposits has decreased, while that of the private sector banks has increased. The share of the private sector, in the total deposits, remained about 7 per cent during the years 2014-15 to 2017-18. It has started improving since then. At the end of March 2020, the share of the private sector in the total deposits increased to 11.6 per cent and remained above 11 per cent by the end of September 2020.

**Figure 3.7: Growth in Deposits by the Types of Banks**


**Figure 3.8: The Proportion of Deposits by the Types of Banks**



**Figure 3.9: The Proportion of Deposits by the Types of Banks**



The deposits in the banks depend on the savings in the economy, which in turn depend on the propensity to save and the income in the economy. Since income is mostly concentrated in the urban areas, a major part of the deposits in the banks comes from the urban areas. In Jharkhand the proportion of deposits coming from the urban areas is not only high, but has also increased over the years. During the years 2014-15 and 2015-16, the proportion of deposits coming from the urban areas

was about 45 per cent. Since 2017-18, it has exceeded 50 per cent. The proportion of savings coming from the rural and the semi-urban areas, on the other hand, is not only low, but has also decreased over the years. The proportion of savings coming from the rural and the semi-urban areas was more than 22 and 31 per cent respectively during the years 2014-15 and 2015-16. It decreased to less than 20 and 30 per cent respectively since the year 2017-18.

**Figure 3.10: The Deposits from Different Sources (Rural, Semi-urban, and Urban)**


### Advances

The advances of the banks, as mentioned above, have grown at the average annual rate of 7.9 per cent between the years 2014-15 and 2019-20. The advances made by the Lead Banks grew at an average annual rate of about 5 per cent. For the 'Other Public Sector Banks' it grew at the rate of about 4 per cent, by the private sector banks at the rate of about 25 per cent, by RRB at the rate of

9.7 per cent and by cooperative banks at the rate of 4.7 per cent. The Small Finance Banks have started making advances on a large scale. The total advances made by these banks at the end of March 2019 was Rs. 579 crores only. By the end of September 2020 it became equal to 1044 crores. The advances made by these banks, thus, grew at the rate of about 27 per cent per annum.

**Table 3.8: Advances by Types of Banks**

(In Rs. Crores)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (Up to Sept.)	CAGR
Lead Banks	40363	42028	48511	50492	50989	51336	52069	4.9
Other Public Sector Bank	17022	18567	19471	19942	25548	21051	17828	4.3
Private Sector Banks	6290	7671	10475	12279	15425	19290	19813	25.1
Regional Rural Banks	1914	2216	2340	2558	2745	3042	3290	9.7
Cooperative Bank	253	246	242	248	275	319	449	4.7
Small Finance Banks					579	1071	1044	
<b>Total</b>	<b>65842</b>	<b>70728</b>	<b>81040</b>	<b>85519</b>	<b>95562</b>	<b>96107</b>	<b>94494</b>	<b>7.9</b>

Source: SLBC Reports

The 'Private Sector Banks' and 'Small Finance Banks', albeit their low share in the total advances is, have made substantial progress in advancing loans. The advances made by them have grown much faster than those of the 'Public Sector Banks'. As a result, their share in the total advances has grown over the years. While their share in the total advances was less than 10 per cent at the end of March 2015 (FY 2014-15), it increased to 21 per cent by

the end of September 2020. The share of both types of public sector banks, the 'Lead Banks' and 'Other Public Sector Banks', on the other hand has decreased in this period. The share of the 'Lead Banks' decreased from about 61 per cent to 55 per cent and that of the 'Other Public Sector Banks' increased from about 26 per cent to about 29 per cent.



Figure 3.11: Growth in Advances by the Types of Banks

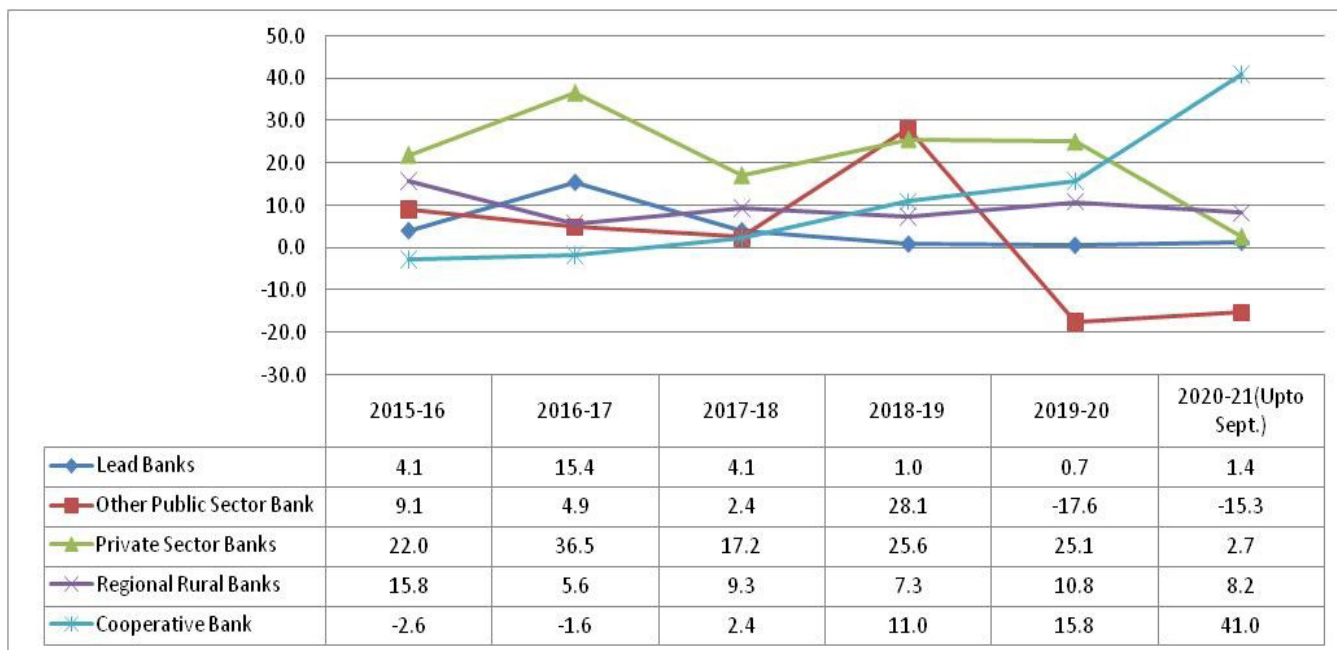
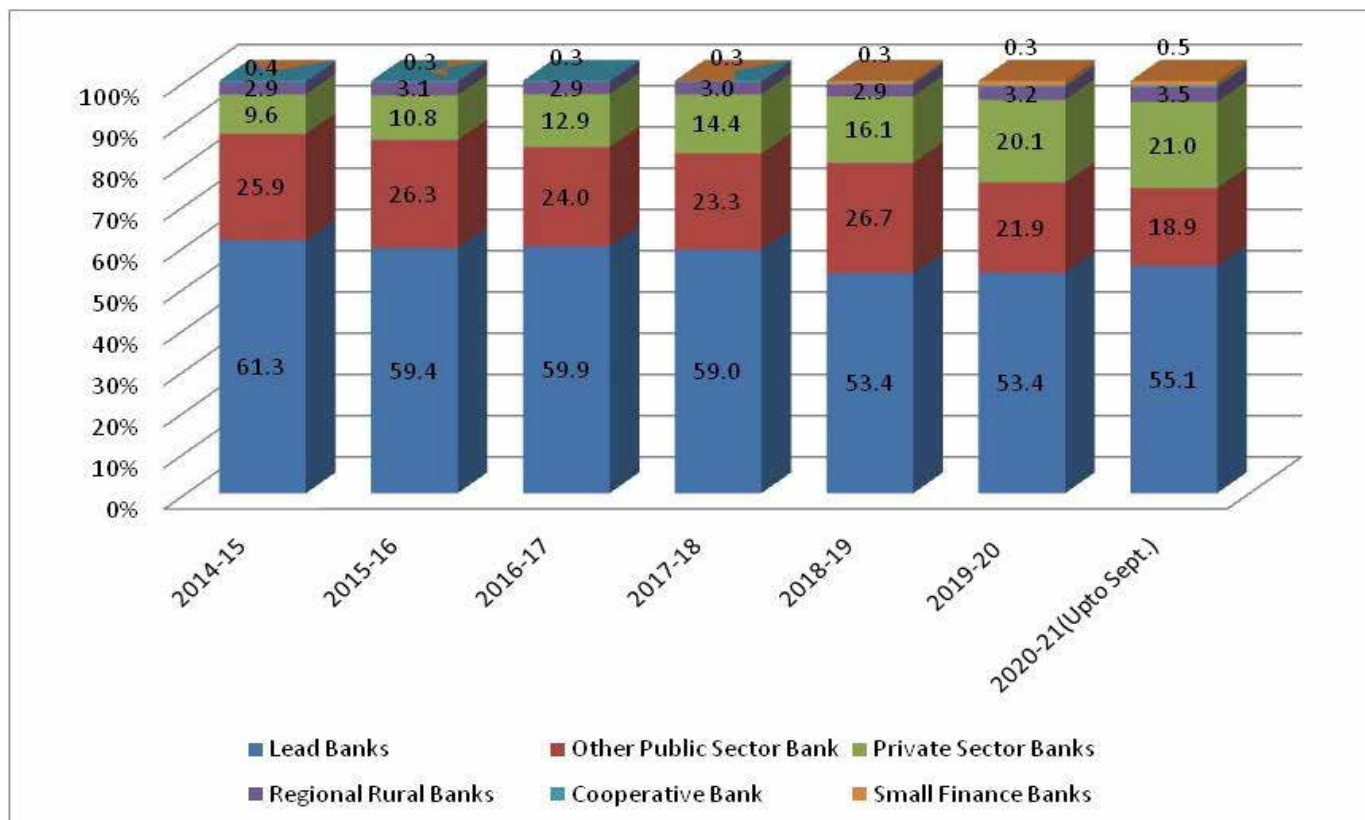


Figure 3.12: The Proportion of Advances by the Types of Banks



The access to and availability of bank-credit on the supply-side and the credit-absorptive-capacity on the demand side, decide the absorption of credit in an economy. In Jharkhand, the credit absorption in the rural areas is very low in comparison to that in the urban areas. While more than 60 per cent of the credit has been absorbed in the urban areas, less than 18 per cent

has been absorbed in the rural areas of the state during the period between 2014-15 and 2019-20. At the end of September, 2020, while about 61 per cent of the credit was absorbed in the urban areas, only about 16 per cent was absorbed in the rural areas.

Figure 3.13: The Proportion of Advances of the Banks to Rural, Semi-Urban and Urban Areas

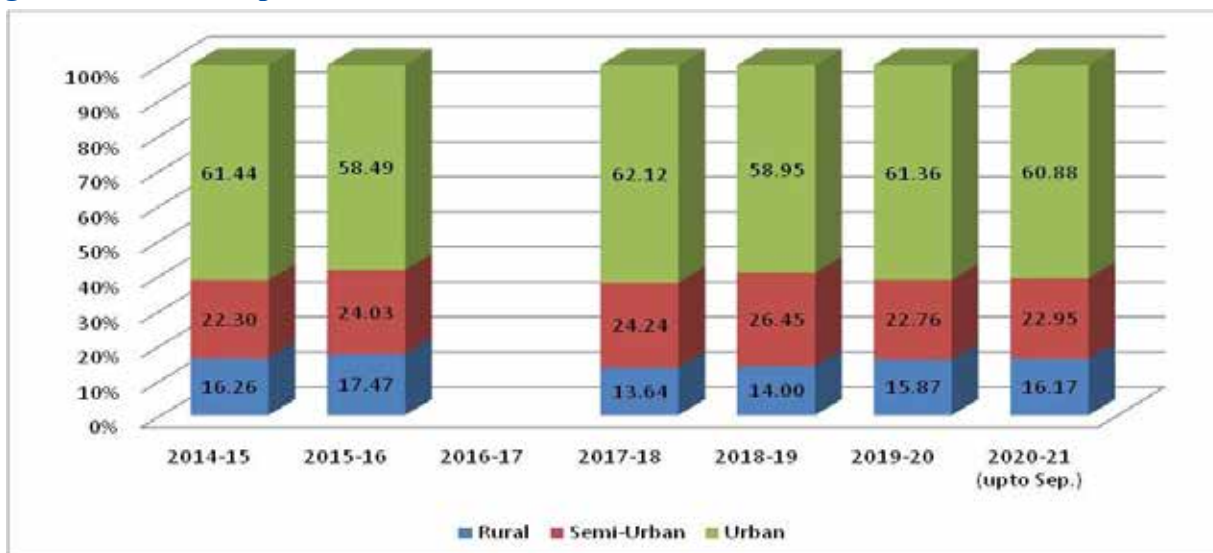
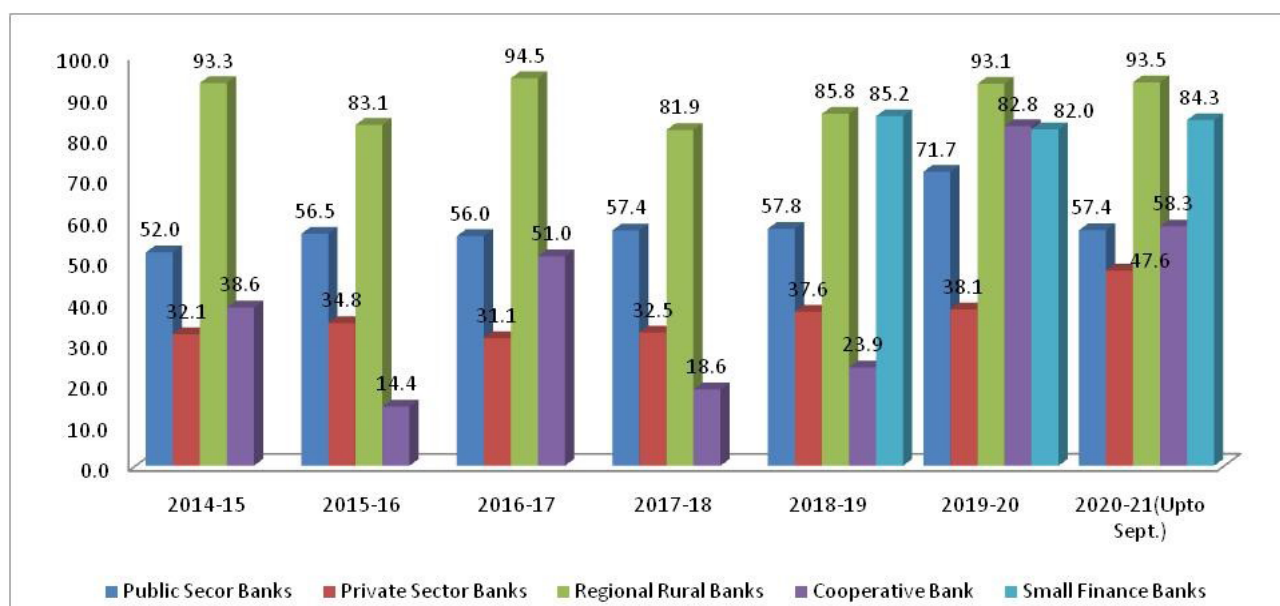


Figure 3.14: Priority Sector Lending (PSL) by Types of Banks



### Advances to the Priority Sector

In order to promote ‘inclusive development’ the banks have been mandated to direct a part of their lending to the priority sectors<sup>2</sup>. The priority sector advances in Jharkhand constitute more than 50 per cent of the total credit created by the banks in the last five and a half years. The priority sector lending (PSL) of the public sector banks have not only been above 40 per cent, but have also improved over the years. It was 52 per cent of their total advances in 2014-15 which increased to about 58 per cent in 2018-19 and about 72 per cent in 2019-20. Between 2014-15 and 2019-20, while the advances of these banks increased at an average annual rate (CAGR) of about 5 per cent only,

their PSL increased at the rate of about 12 per cent. At the end of September, 2020, the PSL of these banks had reached 57 per cent of their total advances.

The PSLs of private sector banks have also improved over the years. It was only about 32 per cent of their total advances in 2014-15, but increased to about 38 per cent in 2019-20. By the end of September of the current financial year, it increased to about 47 per cent. While the advances of these banks increased at an average annual rate (CAGR) of about 25 per cent in the last five years, their PSL increased at the rate of about 30 per cent. They have increased by 3 per cent and 28 per cent, respectively, in the last six months.

<sup>2</sup> RBI/FIDD/2020-21/72 Master Directions FIDD.CO.Plan. BC.5/04.09.01/2020-21 September 04, 2020.

The priority sector advances have grown at an average annual rate of about 13 per cent between the years 2014-15 and 2019-20. The credit to the agricultural sector has grown at the average annual rate of about 7 per cent, that

to the MSME at the rate of about 16 per cent and that to the other priority sectors at the rate of 16.8 per cent during this period.

**Table 3.9: Priority Sector Advances**

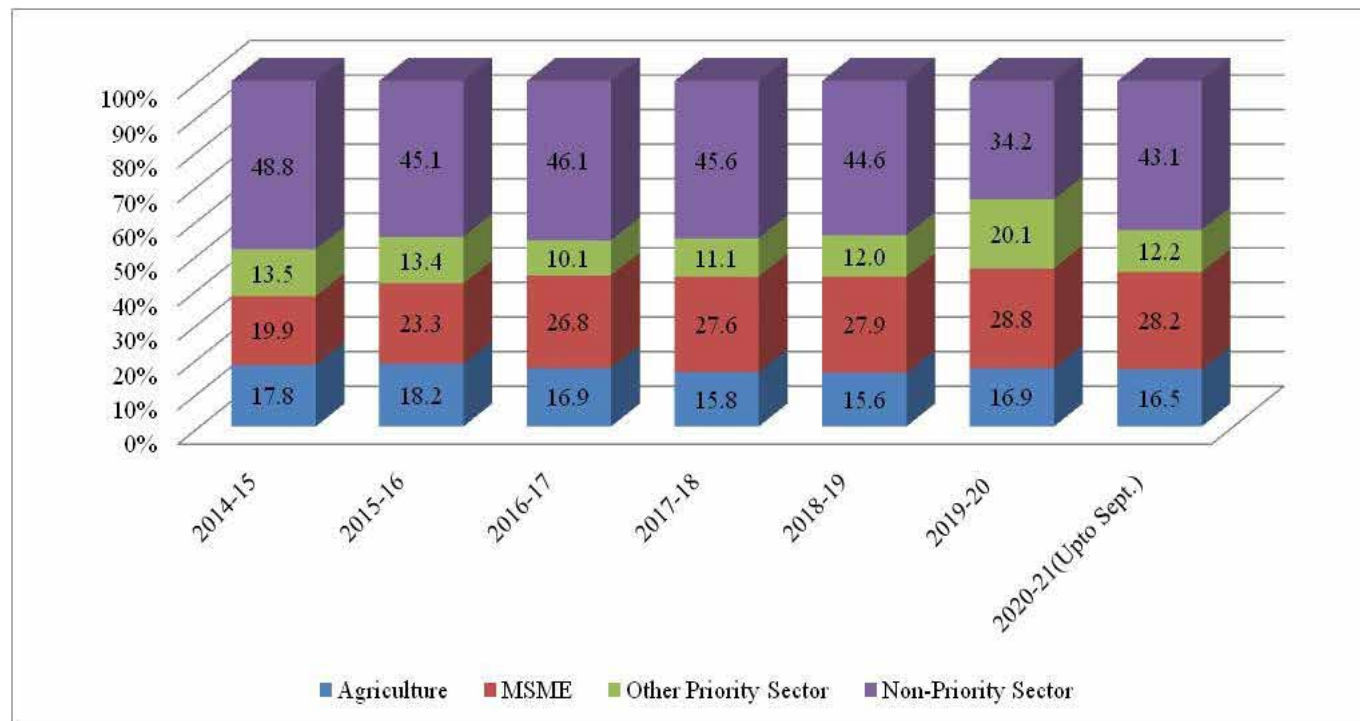
(Rs. in Crore)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21(Upto Sept.20)	CAGR 2014-15 to 2019-20
Agriculture	11746	12859	13704	13486	14865	16230	15635	6.7
MSME	13121	16459	21721	23569	26623	27700	26611	16.1
Other Priority Sector	8870	9486	8225	9473	11437	19271	11514	16.8
Total Priority Sector	33736	38804	43651	46528	52925	63201	53760	13.4

The share of the agricultural sector in the total credit has remained almost stable between 16 and 18 per cent in last five and a half years – from March, 2015 to September, 2020. The share of MSME in the total credit of the banks has not only been higher than the

share of the agricultural sector, but has improved over the years. The share of this sector in the total credit of the banks was about 20 per cent at the end of March, 2015. It increased to about 28 per cent in March, 2019 and has exceeded it since March, 2020.

**Figure 3.15: Credit-flow to the Different Sectors**



### Advances to Weaker Sections

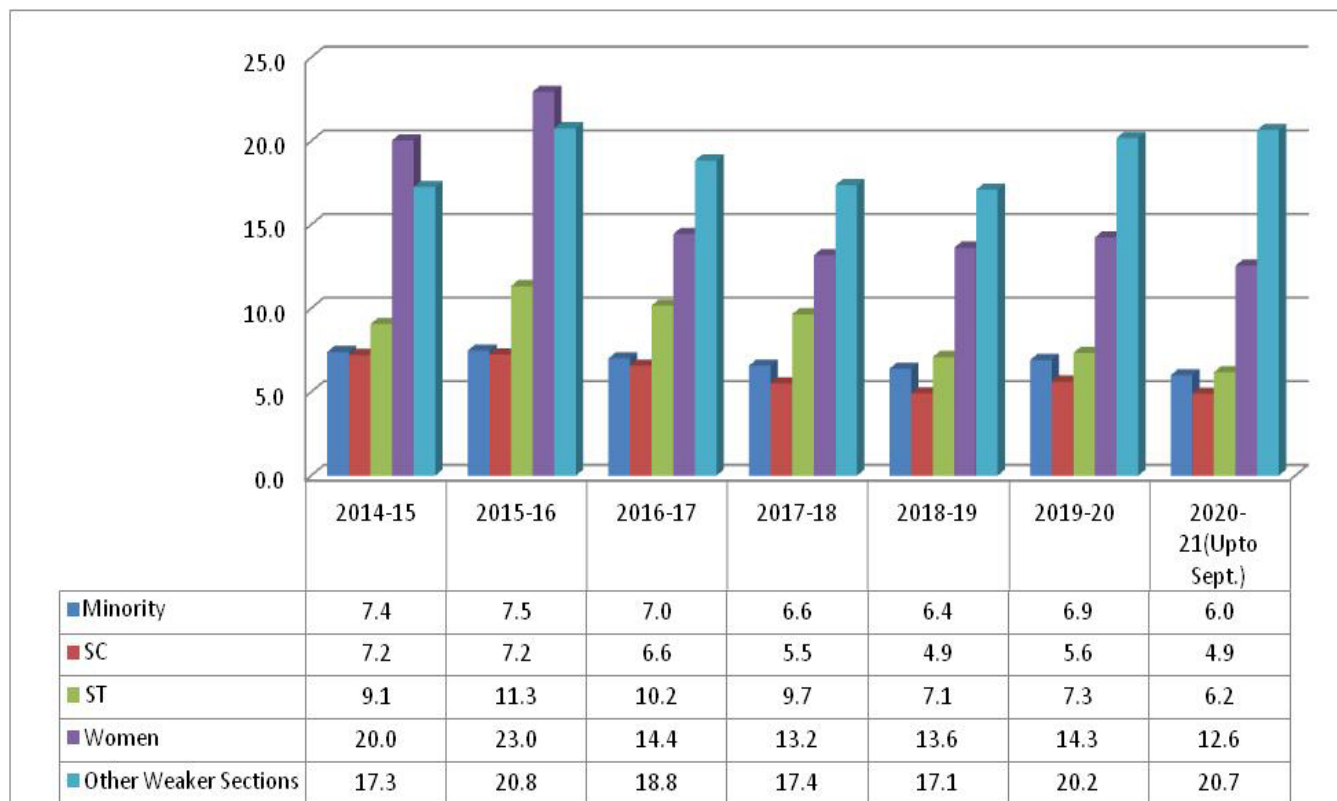
Credit is an important instrument to improve the economic condition of the weaker sections. Access to credit on convenient terms and low rates of interest can help them to start or/and strengthen their own

enterprises, enhance their own income and boost their economic condition. The banks have, therefore, been given the responsibility by the government to direct part of their advances to the weaker sections.

In Jharkhand also, a substantial part of the bank-advances have been directed towards the weaker sections. Between 2014-15 and 2019-20, more than 6 per cent of the advances have been given to the minorities, more

than 5 per cent to the SCs, more than 7 per cent to the STs, more than 13 per cent to women and more than 17 per cent to the other weaker sections of the society.

**Figure 3.16: Advances to the SCs, STs, Women and Other Weaker Sections**

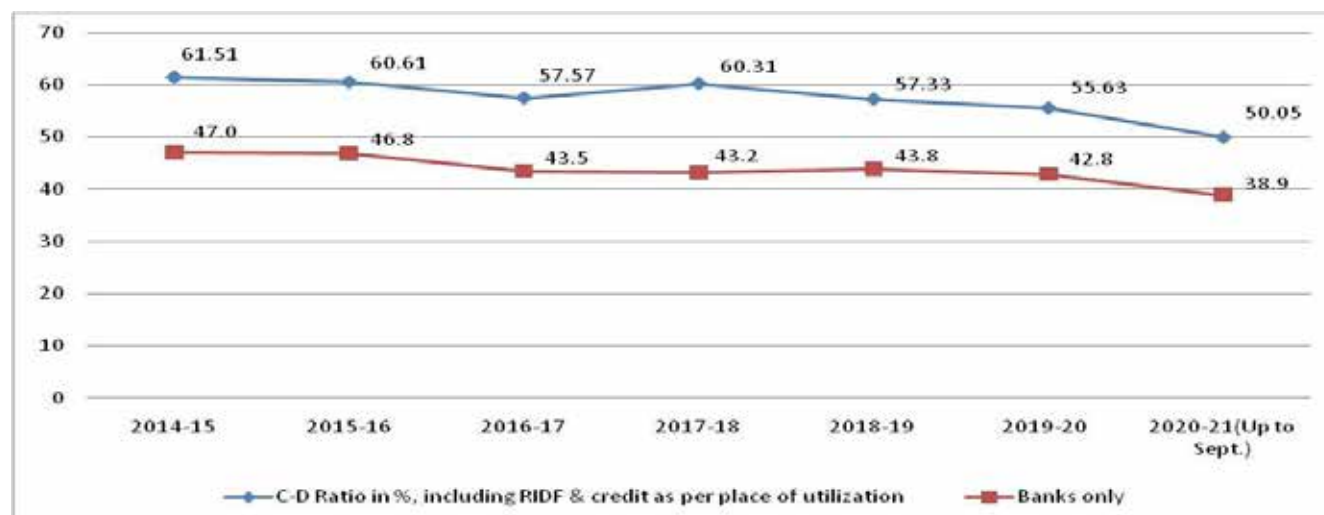


### C-D Ratio

As mentioned above, the C-D ratio has not only been low but has also declined over the years. After including RID and credit at the place of utilization it was 61.5 per cent in the year 2014-15 which declined in the subsequent

years. It has remained less than the RBI bench mark of 60 per cent since 2018-19. It was 55.6 per cent in the year 2019-20 and 50.5 per cent at the end of the second quarter of the current financial year.

**Figure 3.17: Trends in the C-D Ratio (in %)**

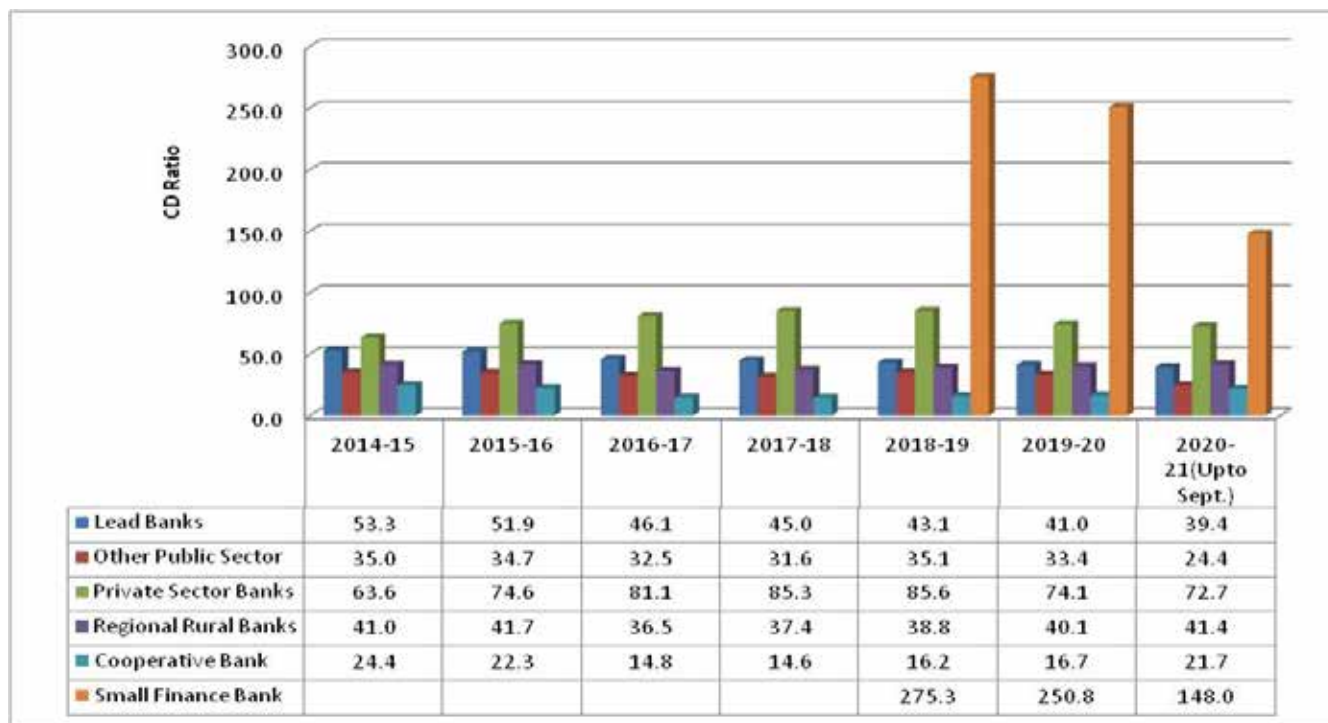


The CD-ratio of the banks (without including RID and credit at the place of utilization), has also shown a declining trend. It was about 47 per cent in 2014-15 which kept on declining annually in the subsequent years. It declined to 42.8 per cent in 2019-20 and 38.9 per cent at the end of September, 2020. Except for the private sector banks and the small finance banks, the CD ratios of all other financial institutions have been very low. The CD ratio of cooperative banks has remained less than 25 per cent since 2014-15; it was even less than 20 per cent between 2016-17 and 2019-20. The performance of RRBs, however, has been better than the cooperative banks. The CD ratio of RRBs has mostly remained at about 40 per cent.

Among the public sector banks, the CD ratio of the Lead Banks has been better than that of the ‘Other Public Sector Banks’, though it kept on declining each passing year. The CD ratio of the ‘Lead Banks’ was about 53 per cent in 2014-15; it declined continuously since then to 41 per cent in 2019-20 and to 39.4 per cent by the end of September, 2020. The CD-ratio of ‘Other Public Sector Banks’, on the other hand, has always remained less than 36 per cent since 2014-15.

The CD-ratio of the Public Sector banks was 63.6 per cent in the year 2014-15 and remained above 70 per cent thereafter. It remained above 80 per cent between the years 2016-17 and 2018-19. The CD ratio of the Small Finance Banks has remained very high. It has exceeded even 100 per cent.

**Figure 3.18: C-D Ratio of the banks by the category of banks (in %)**



Source: SLBC Jharkhand Reports.

### Recovery of Loans and Advances

More than 50 per cent of the demands for the recovery of outstanding loans have been recovered in Jharkhand. The status of recovery was about 66 per cent in the year 2017-18 and 63 per cent in the year 2018-19. It decreased to 54 per cent at the end of March 2020 and to about 55 per cent by the end of September 2020. The recovery of the outstanding advances of the priority sector has been above 50 per cent in the last three and a half years. Within the priority sector, the recovery of advances to

the agricultural sector and other priority sectors have also been above 50 per cent. The recovery-status of the other priority sectors has in fact improved to above 60 per cent since March, 2019. The recovery-position of MSME was below 50 per cent in 2017-18 and 2019-20 but it has improved by the end of September, 2020. The recovery-position of the advances given to the SHG has been very good. More than 70 per cent of their outstanding advances have been recovered.

**Table 3.10: Sector-Wise Status of Recovery of Loans and Advances**  
(As percentage of demand)

	2017-18	2018-19	2019-20	2020-21 (Up to Sept.)
Agriculture	56.9	56.3	51.6	54.1
MSME	44.1	58.0	46.0	68.2
Other Priority Sector	57.8	64.0	66.2	62.9
Total Priority Sector	53.6	58.4	51.9	60.1
PMEGP	54.4	55.4	45.6	44.2
SHG	81.4	76.7	74.8	76.0
PMMY	57.5	56.9	45.2	47.6
Stand Up India	42.6	44.9	32.6	26.0
Total	65.8	63.5	54.1	55.4

Source: SLBC Jharkhand Report

The recovery of the demand for outstanding advances of the 'Private Sector Banks' has been very high. Except for the year 2018-19, when the recovery rate fell below 80 per cent, by only 1 percentage points, its recovery has been above 86 per cent throughout the period of 2014-15 to 2019-20. Among the public sector banks, the performance of the 'Lead Banks' has been better

than the 'Other Public Sector Banks' or 'Other Public Sector Banks New' while the recovery rate of the 'Lead Banks' did not decrease below 64 per cent. That of the 'Other Public Sector Banks' or the 'Other Public Sector Banks New' did not increase above 52 per cent during the period 2014-15 and 2019-20.

**Table 3.11: Bank-wise Status of Recovery of Loans and Advances**  
(As percentage of demand)

	2017-18	2018-19	2019-20	2020-21(Upto Sept.)
Lead Bank	87.2	86.9	64.0	72.6
Other Public Sector Bank	61.3	51.6	46.1	44.4
Other Public Sector New	22.5	50.3	48.2	85.0
Private Sector Banks	86.2	79.1	87.5	88.4
RRBs	49.7	64.7	53.2	69.0
Cooperative Banks				30.3

### Non-Performing Assets (NPAs)

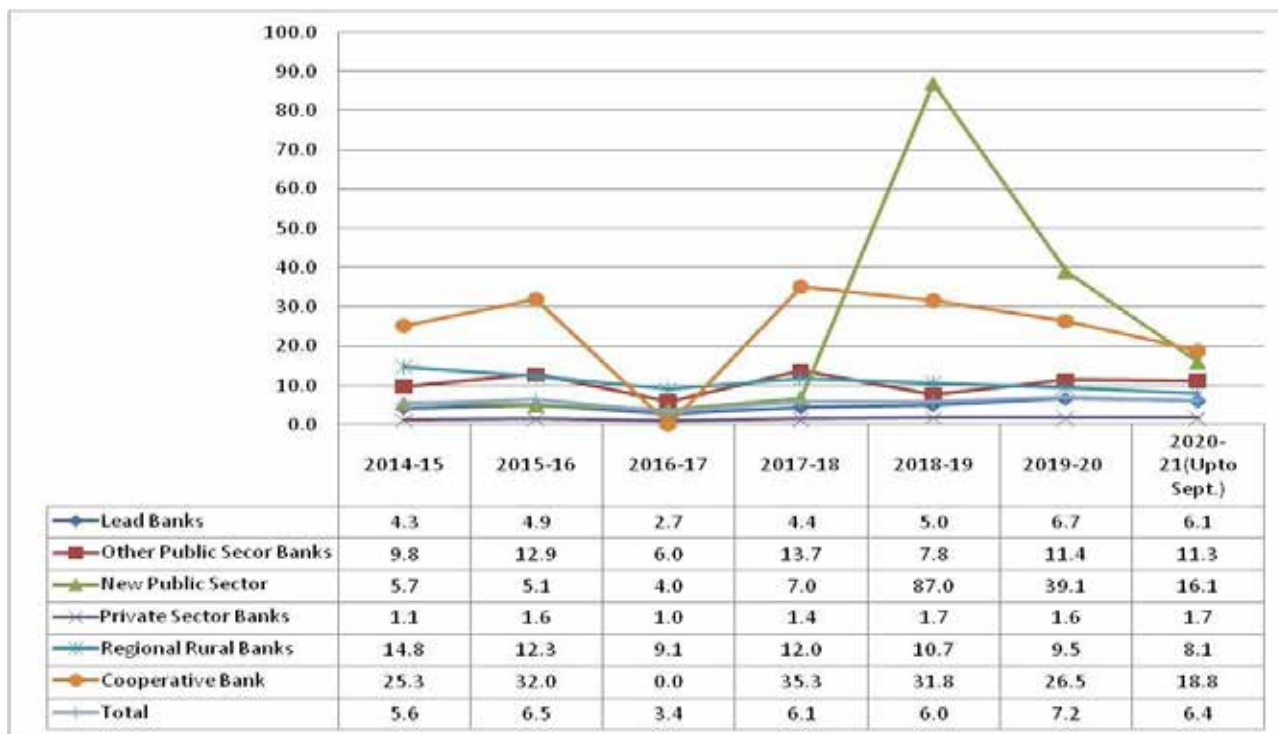
The Non- Performing Assets (NPAs)<sup>3</sup> of the banks in the state have mostly been about 6 per cent of their total

<sup>3</sup> A non performing asset (NPA) is a loan or advance for which the principal or interest payment has remained overdue for a period of 90 days or more. The Gross non-performing assets refer to the sum of all the loans that have been defaulted by the borrowers within the provided period while the net non-performing assets are the amount that results after deducting provision for the unpaid debts from gross NPA.

outstanding advances. In the last six and a half years the NPAs of the banks varied between 3.4 per cent in the year 2016-17 and 7 per cent in 2019-20.

As has been discussed above, the recovery performance of the private sector banks has been very high; as a result, their NPA has remained very low. The NPAs of RRBs and Cooperative Banks, on the other hand, have remained very high.

**Figure 3.19: Trends in NPA by the Types of Banks  
(As percentage of the total outstanding advances)**

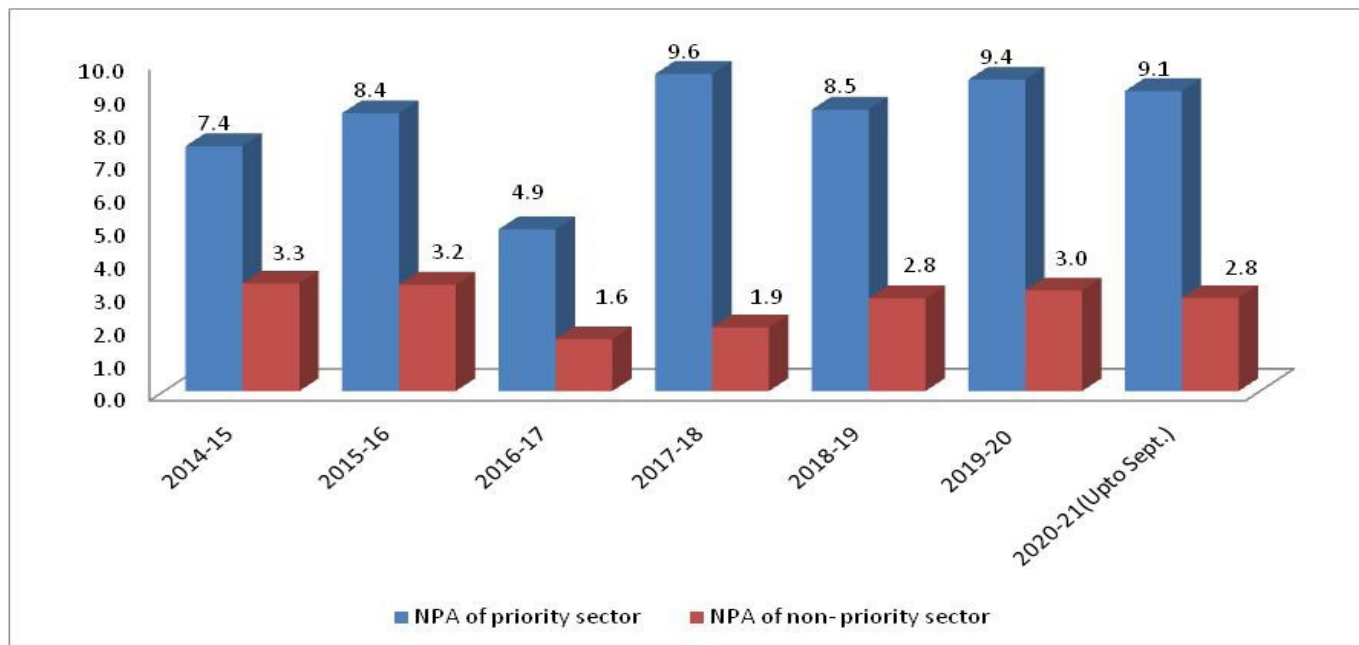


**Composition of NPA**

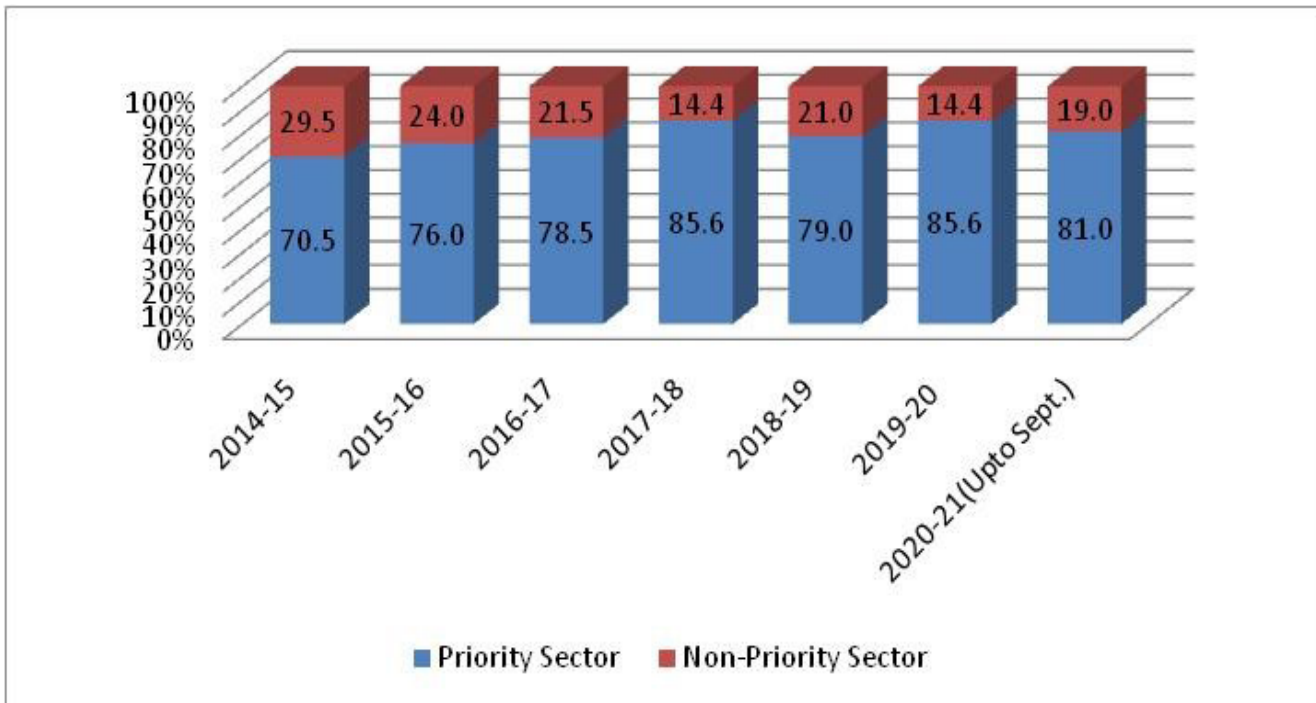
The NPA of the priority sector advances has been higher than that of the non priority sector. The NPA of the priority sector was 7.4 per cent in the financial year 2014-15 which increased to 8.4 per cent in 2015-16. In 2016-17 it again fell down to 4.9 per cent. It has varied between 8.4 and 9.6 per cent since then. The NPA of

the non-priority sector, on the other hand, has varied nominally between 1.6 per cent and 3.3 per cent only in the last six and a half years. As a result, while the share of the priority sector to the total advances has, on an average, been 56 per cent, its share in the total NPA has, on an average, been about 80 per cent.

**Figure 3.20: Composition of NPAs**



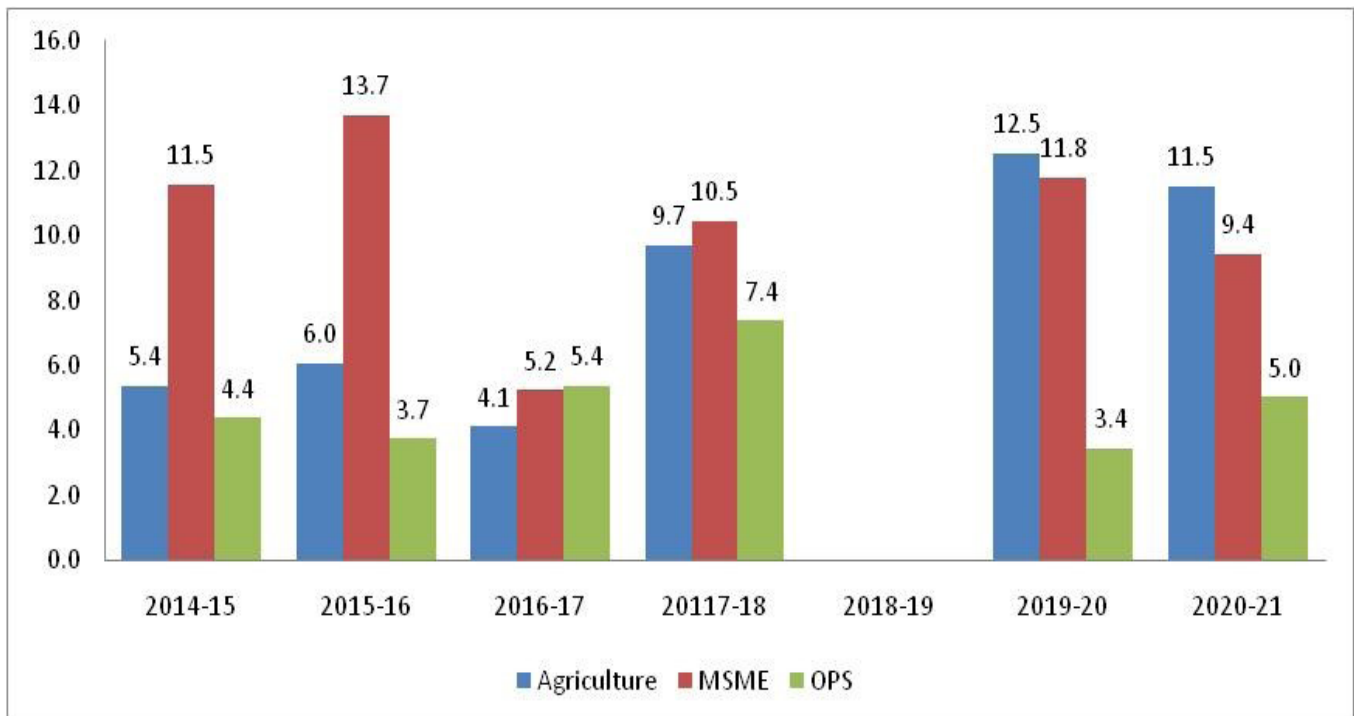
**Figure 3.21: Share of the Priority and the Non-Priority Sectors in the total NPAs**



Within the priority sector, the NPA of the MSME has mostly been more than 10 per cent of its outstanding advances in the last six and a half years. Except for 2016-17 and the end of September 2020, the NPA of this sector exceeded by 10 per cent. The NPA of the agricultural sector has mostly been less than 10 per cent. It has been

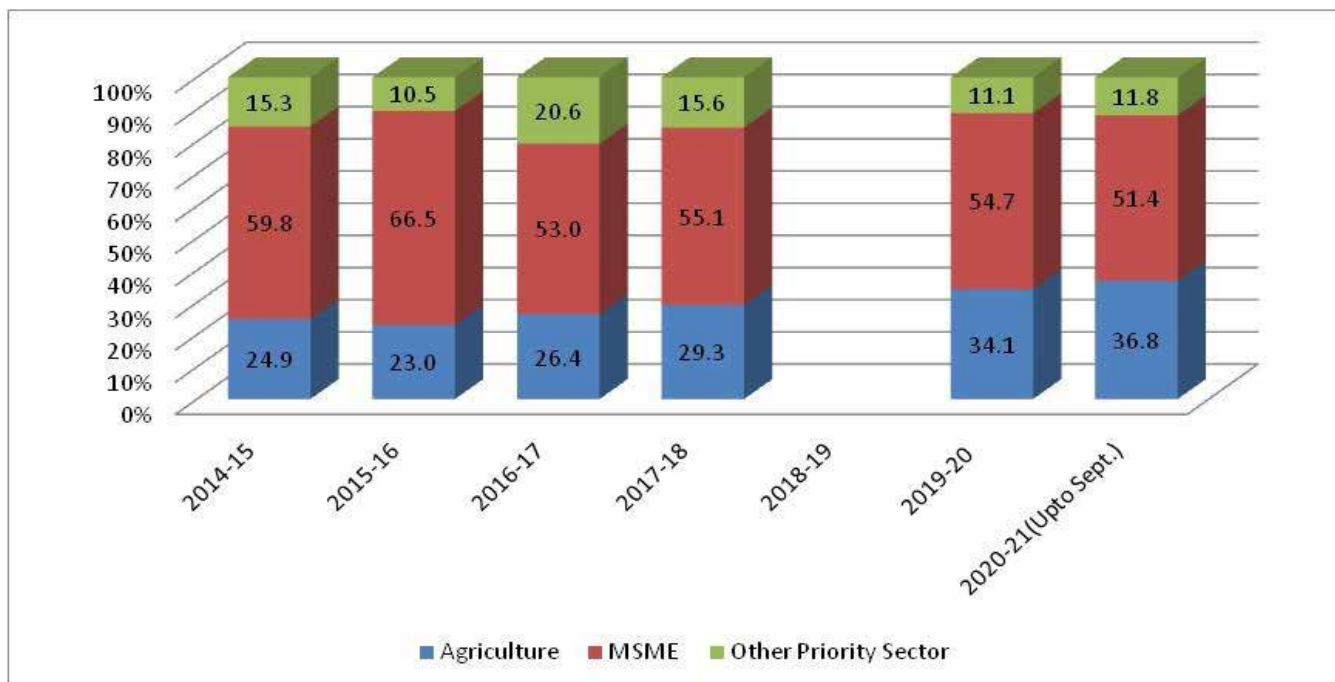
more than 10 per cent only in the last one and a half years. As a result of the high NPA of MSME, the share of MSME in the NPA of the priority sector has been more than 50 per cent between 2014-15 and 2020-21 (up to September)

**Figure 3.22: The NPAs of Priority Sectors as a Percentage of their Total Advances**





**Figure 3.23: Share of the Priority Sectors in their NPA**



Source: SLBC Jharkhand Report

**Performance of Banks under the Annual Credit Plan (ACP)**

The achievements of the banks have mostly fallen short on their annual targets of accounts to be opened and amounts to be disbursed. Only in 2017-18 and 2018-19, the achievements of the banks in the disbursements of advances to the non-priority sectors exceeded their targets. The same was in the area of opening of accounts of the priority sector in the year 2019-20.

The achievements of the banks in the non-priority sector lending, especially in case of the targets for the

disbursements of amounts, have been better than those of the priority sector during the period 2016-17 to 2019-20. Within the priority sector, the achievement in the opening of accounts of disbursing advances to MSME has remained much better than the agricultural, educational (up to Rs. 10 lacs) or other priority sectors. In the period between 2016-17 to 2019-20, the achievements of the banks either exceeded their targets or remained very close to the targets. Within the non-priority sector, the performance of the banks with regard to lending to heavy industries or to other non-priority sectors, has been better than in providing loan for housing or education.

**Table 3.12: Sector-wise Achievement under the Annual Credit Plan (Achievement as percentage of target)**

	2016-21		2017-18		2018-19		2019-20		2020-21 (up to September)	
	Account	Amount	Account	Amount	Account	Amount	Account	Amount	Account	Amount
Priority Sector	58.3	71.8	78.4	86.2	75.9	72.4	135.8	78.3	44.0	35.1
Non-Priority Sector	52.0	91.9	77.8	100.3	98.6	133.9	91.3	85.4	44.0	62.7
Total	57.2	79.4	78.3	90.6	79.5	90.4	126.5	80.8	44.0	43.5

Source: SLBC Jharkhand Report

**Table 3.13: Sector-wise Achievement under the Annual Credit Plan in the Priority Sector**  
(Achievement as percentage of target)

	2016-21		2017-18		2018-19		2019-20		2020-21 (up to September)	
	Account	Amount	Account	Amount	Account	Amount	Account	Amount	Account	Amount
Agriculture	59.1	41.2	69.2	48.9	66.8	45.9	101.1	47.6	30.2	21.5
MSME	75.6	113.7	130.5	141.0	117.1	108.5	237.4	98.6	91.1	50.0
Education (up to Rs. 10 Lacs)	29.2	45.7	60.3	40.2	36.8	36.7	45.9	50.9	13.7	17.3
Housing	16.7	66.8	45.6	82.1	46.1	68.8	119.0	83.9	16.5	29.1
Other	26.7	51.7	33.7	26.1	37.5	30.1	219.1	195.8	229.0	63.6

Source: SLBC Jharkhand Report

**Table 3.14: Sector-wise Achievement under the Annual Credit Plan in the Non-Priority Sector**  
(Achievement as percentage of target)

	2016-21		2017-18		2018-19		2019-20		2020-21 (up to September)	
	Account	Amount	Account	Amount	Account	Amount	Account	Amount	Account	Amount
Heavy Industry	4.0	21.9	28.4	140.4	121.8	107.1	58.6	55.8	21.8	16.8
Education	13.0	10.9	10.3	9.9	20.1	14.2	8.3	13.6	2.2	7.0
Housing	19.6	50.8	62.3	78.6	60.3	62.8	11.0	32.6	2.9	9.2
Others	55.9	122.3	79.1	106.5	100.2	155.5	107.4	106.5	53.6	89.8

Source: SLBC Jharkhand Report

### Status of Kisan Credit Card (KCC)

During 2020-21 (up to September, 2020) about Rs. 1,586 crores were disbursed through the KCC. The total outstanding amount by 30<sup>th</sup> September in this account

was Rs. 6,709 crores. A total of 3,24,395 KCC accounts were disbursed and 13,77,920 accounts were outstanding by the end of September 2020.

**Table 3.15: Bank Category-wise Status of KCC in Jharkhand (Amount in Crores)**

Type of Banks	Disbursement		Outstanding in KCC accounts	
	During 2020-21		As on 30.09.2020	
	Account	Amount	Account	Amount
Public Sector Banks	1,41,435	573.68	9,21,652	4,407.56
Private Banks	510	6.51	62,933	311.73
Total	1,41,945	580.19	9,84,585	4,719.29
RRB	1,82,450	1,005.12	3,78,600	1,951.76
Co-operative Banks	104	0.46	14,735	38.51
Total	1,82,554	1,005.58	3,93,335	1,990.27
Grand Total	3,24,395	1,585.77	13,77,920	6,709.56

Source: 73<sup>rd</sup> round of SLBC, Jharkhand

### Conversion of KCC into Smart KCC

All general KCC accounts have to be converted to Smart KCC accounts. These Smart KCC accounts will have *Rupay Cards* which can be used at ATMs and POS to promote digital transactions. As per the records given by the banks till 30<sup>th</sup> September 2020, applications for the conversion to Rupay cards were given for 11,63,077 eligible KCC accounts and out of these 10,82,529 (95.78%) Rupay Debit Cards have been issued uptill now.

### PM-KISAN Scheme

The PM-KISAN scheme is a Central Sector Scheme with 100 per cent funding from the Government of India. It has become operational from 1<sup>st</sup> December 2018. Under this scheme an income support of Rs. 6,000/- per year in three equal instalments is provided to the small and marginal farmer families having combined land holding of up to 2 hectares. Till 4<sup>th</sup> November, 2020, 31.85 lakh farmers of Jharkhand have been registered for this scheme. As per the dashboard of PM-KISAN scheme, the total number of beneficiaries of this scheme in the state are 29.62 lakhs in the third quarter of the current financial year.

### Collateral Free Loan Up to Rs.2.00 Crores in MSME

Lack of sufficient collateral is seen as a major roadblock for the micro/small enterprise units (MSEs) in obtaining credit from the banking system. Keeping this in view, the Government of India and SIDBI had set up "**Credit Guarantee Fund Trust for Micro and Small**

**Enterprises"** (CGTMSE). On the basis of the CGTMSE guidelines, MSE loans up to Rs. 2 crores are eligible for a credit-guarantee-cover and this cover is extended to those entrepreneurs who have viable projects/ proposals but lack adequate collateral security to offer.

As per the information provided by the banks (SLBC, 73<sup>rd</sup> Round) in Jharkhand, there are 12.39 lakh MSMEs who have credit outstanding of up to Rs. 2 crores and are therefore eligible for the CGTMSE coverage but out of them only 1.86 lakh accounts have been covered under the CGTMSE. Thus, only 15 per cent of the eligible accounts have been benefited by it.

### Pradhan Mantri Mudra Yojana (PMMY)

The Pradhan Mantri MUDRA Yojana (PMMY) is a scheme for providing loans up to 10 lakhs rupees for the non-agricultural activities to the non-corporate, small/micro enterprises. These loans are classified as MUDRA loans under the PMMY. These loans are given by the Commercial Banks, RRBs, Small Finance Banks, Cooperative Banks, MFIs and NBFCs. The borrower can approach any of the lending institutions mentioned above or can apply online through its portal. Under the aegis of PMMY, MUDRA has created three products namely '**Shishu**', '**Kishore**' and '**Tarun**' to signify the stage of growth / development and funding needs of the beneficiary micro unit / entrepreneur and also provide a reference point for the next phase of graduation / growth. As per the 73<sup>rd</sup> SLBC Jharkhand report, about Rs. 1,280 crores have been disbursed by the banks and Micro Finance Institutions (MFI) in the financial year 2020-21, by the end of September, 2020.

**Table 3.16: Achievements of Jharkhand under the PMMY**

**(Amount in Rs. Crores)**

		Shishu		Kishore		Tarun		Total	
		No	AMT	No	Amt	No	Amt	No	Amt
Financial year 2020-21. As on 30 <sup>th</sup> September, 2020	Sanctioned	247185	671.5	39719	397.4	4295	260.8	291199	1329.7
	Disbursed	247131	670.6	39694	374.8	4283	234.7	291108	1280.1
	Disbursed as a percentage of sanctioned	99.98	99.87	99.94	94.31	99.72	89.99	99.97	96.27

Source: SLBC Jharkhand Report.

The Micro Finance Institutions have sanctioned Rs. 311 crores against 105065 accounts in the state and 100 per cent of the amount have already been disbursed to them. Thus, under the MUDRA Scheme, a total of Rs. 1280 crores have been disbursed to 291108 accounts in the current financial year till the end of September.

### Stand Up India Loan Programme

For setting up a green-field enterprise, the Stand-Up India Scheme facilitates bank loans between Rs 10 lakhs and Rs 1 crore to at least one Scheduled Caste (SC) or Scheduled Tribe (ST) borrower and at least one woman borrower per bank branch. This enterprise may

be in the manufacturing sector, in the services sector or in the trading sector. The scheme is anchored by the Department of Financial Services (DFS), Ministry of Finance, Government of India. In Jharkhand under this programme, till the end of the current financial year, banks have extended credit to 1900 beneficiaries out of whom 1646 are women-beneficiaries and 324 are SC/ST beneficiaries. About Rs. 396 crores have been disbursed to them.

In the current financial year (2020-21), Rs. 1,271 lakhs have been sanctioned to 55 accounts of which 41 belong to females and 14 to males.

**Table 3.17: Jharkhand's achievement in Stand Up India Loan Programme (Till 30.09.2020)**

Total number of Beneficiaries	Women Beneficiaries	SC/ST Beneficiaries	Loan Disbursed Amount (in crores)
1900	1646	324	395.62

Source: 73<sup>rd</sup> SLBC Jharkhand Report.

**Table 3.18: Stand Up Indian Loan from 1<sup>st</sup> April 2020 to 30<sup>th</sup> September, 2020.**

(Amounts in Rs. lacs)

		Accounts	Sanctioned amount
Females	General	28	602.00
	Minority Community	1	11.00
	OBC	12	396.15
	ST/SC		
	<b>Total</b>	41	1,009.15
Males	SC/ST	14	261.90
	<b>Total</b>	14	261.90
<b>Grand Total (Males+ Females)</b>		<b>55</b>	<b>1271.05</b>

### Schemes for Financial Inclusion

Schemes like the PMJDY, PMJJY, PMSBY, APY, etc. have been initiated in the country and in its provinces to improve financial inclusion.

### Pradhan Mantri Jan Dhan Yojana (PMJDY)

Till September, 2020 about 1.50 crore PMJDY accounts

have been opened in the state, out of which about 82 per cent have been opened in the rural areas. About 83 per cent of these accounts are AADHAR seeded while about 69 per cent of them are mobile seeded. The banks have distributed Rupay cards to 63 per cent of the account holders. Out of these, 89 per cent of them have been activated by the banks.

**Table 3.19: PMJDY – Jharkhand’s Achievement (Till 30.06.19)**

	Total No. of Accounts			No. of Rupy Cards issued on PMJDY accounts	No. of AADHAR seeded PMJDY accounts	No. of Mobile seeded PMJDY accounts	No. of Rupy Cards distributed by banks on PMJDY accounts	No. of Rupy Cards activated by banks on PMJDY accounts
	Rural	Urban	Total					
30.06.19	9157656	3408016	12565672	10515989	11223920	8609010	8434120	7187806
30.06.20	93,63,362	35,58,859	1,29,22,221	1,02,68,650	1,06,39,214	86,63,771	85,73,123	77,19,452
30.09.20	12285095	26,93,543	1,49,78,638	1,07,47,446	1,24,55,270	1,03,57,045	94,52,314	84,18,114

Source: Quoted from 68th SLBC Report Jharkhand

**Insurance and Pension Schemes**

Two insurance scheme viz. Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Sadak Bima Yojana (PMSBY) and one pension scheme viz. Atal Pension Yojana (APY) were launched in the second phase of PMJDY. Both these schemes are also running quite successfully in the state. By the end of the second quarter of the current financial year (till 30<sup>th</sup> September,

2020) the total enrolment in PMJJBY has been about 15.23 lakhs, in PMSBY, about 46.75 lakhs and in APY about 6.6 lakhs. In the current financial year (2020-21) about 2.6 lakh cases have been enrolled in PMJJBY, about 5.2 lakhs have been enrolled in PMSBY and about 1.12 lakh cases have been enrolled in APY till the end of the second quarter (till 30<sup>th</sup> September, 2020).

**Table 3.20: PMJJBY, PMSBY & APY – Jharkhand’s Achievement (Till 30.06.19)**

	PMJJBY		PMSBY		APY	
	No. of cases enrolled in 2020-21	Total Enrolment	No. of cases enrolled in 2020-21	Total Enrolment	No. of cases enrolled in 2020-21	Total Enrolment
Till 30.06.2019		764422		3279979		373962
Till 30.06.2019	262915	1522995	519436	4675379	110924	659565

Source: Quoted from 68<sup>th</sup> & 73<sup>rd</sup> SLBC Report Jharkhand

**Expansion of Bank Branch/Banking Outlet (BC)**

As per the RBI resolve for increasing financial inclusion, every village with a population of more than 5000 must have a bank branch/banking outlet (BC). In Jharkhand, 137 such villages were identified where there was no bank or bank branch. Accordingly, these villages were notified for brick and mortar branch-opening. But now, as per the new guidelines of the RBI, a BC can be considered as a banking outlet if it operates for a minimum of 4 hours per day for a minimum of five days in a week at a fixed place. As per this guideline all the 137 villages are now equipped with a fixed location BC.

**AATMNIRBHAR BHARAT**

The Government of India announced a special economic package for providing credit support to all the economic agents whose activities got disrupted because of the COVID-19 pandemic. The purpose is to provide relief to those affected adversely and to revive the economy from the ill effects of the pandemic. The important measures announced for MSMEs are

1. Emergency Working Capital Facility [Emergency Credit Line Guarantee Scheme (ECLGS)] for Businesses, including MSMEs
2. Finance under Credit Guarantee Scheme for Subordinate Debt (CGSSD)

3. 2% Interest subvention for MUDRA-Shishu Loans
4. PM SVANidhi: Scheme for Street Vendors
5. Finance Facility under ‘Agriculture Infrastructure Fund’

(ECLGS) around 91 thousand applications have been received till 31<sup>st</sup> October, 2020. Out of them, 99.7 per cent of the accounts were sanctioned. Till 31<sup>st</sup> October, 2020, about Rs.1563 crores were sanctioned out of which 86.7 per cent have been disbursed.

**Emergency Credit Line Guarantee Scheme (ECLGS):**

Under the Emergency Credit Line Guarantee Scheme

**Table 3.21: Emergency Credit Line Guarantee Scheme (ECLGS) for MSME  
(Progress till 31<sup>st</sup> October, 2020)**

Total number of application received	No. of accounts sanctioned	Amount sanctioned (in Rs. Lakhs)	Amount disbursed (in Rs. Lakhs)
91,181	90,862.00	1,56,293.76	1,35,451.35

**Credit Guarantee Scheme for Subordinate Debt (CGSSD):** The Ministry of Micro, Small and Medium Enterprises, has framed this scheme for the purpose of providing guarantees in respect to credit facilities extended by eligible and registered scheduled commercial bank to borrowers in Micro, Small and Medium Enterprises (MSMEs). The scheme has been operationalized through a special window created for this purpose under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)’. Under this scheme, 544 borrowers are eligible in the state. For this, the promoter’s contribution till the end of September, 2020 was about Rs. 62.7 crores and the eligible loan amount stands at Rs. 59.09 crores.

**Interest subvention for MUDRA-Shishu Loans:** This scheme is implemented through the Small Industrial Development Bank of India (SIDBI) and is operational for 12 months. The Government is providing interest subvention of 2 per cent for 12 months for the prompt payees of MUDRA Sishu loans.

**PM SVANidhi: Scheme for Street Vendors:** This scheme has been introduced to help the street vendors. The eligible street vendors, as identified by the ULBs, have been extended credit up to Rs. 10000/- and are provided with interest subvention at the rate of 7 per cent for regular repayment. The total number of street vendors in the state, as per the estimate of the urban development department, is 30,518. Till 5<sup>th</sup> November, 2020, 18,334

applications were received under this scheme, out of which 11,677 street vendors were sanctioned loan and this loan has been disbursed to 7459 beneficiaries.

**Agriculture Infrastructure Fund:** In order to improve the agricultural infrastructure this scheme aims at providing loan and budgetary support for interest subvention for the development of farm gate infrastructure, infrastructure for post harvest management and also for the procurement of community farming assets. The scheme is operational from the current financial year (2020-21) for a period of 10 years. The Government of India has committed to provide budgetary support for the interest subvention at the rate of 3 per cent per annum for a loan limit up to Rs. 2 crores. This is for a maximum period of 7 years. Apart from it there is the credit guarantee fee and administrative cost of Programme Management Unit (PMU).

Jharkhand has a target of distributing Rs. 157 crores into 800 accounts of 3108 branches of the public sector banks, private sector banks, Regional Rural Banks and Cooperative Banks in the current financial year (2020-21). About 41 per cent of the amount has to be distributed through the Lead Banks, 29 per cent through the other public sector banks, about 15 per cent through the private sector banks, about 11 per cent through the RRBs and about 3 per cent through the Cooperative Banks.

**Table 3.22: Agriculture Infrastructure Fund-Allocation of Bank-wise Target for FY 2020-21**

Types of Bank	Total Branches as on 30.06.2020		No. of Accounts		Amount (in Crores)	
	Number	Percentage	Number	Percentage	Number	Percentage
Lead Banks	1213	39.0	300	37.5	65	41.4
Other Public Sector Banks	910	29.3	238	29.8	45.5	29.0
Private Sector Banks	425	13.7	119	14.9	24	15.3
RRBs	443	14.3	110	13.8	18	11.5
Cooperative Banks	117	3.8	33	4.1	4.5	2.9
Total	3108	100.0	800	100.0	157	100.0

Source: 73<sup>rd</sup> SLBC Report

### Conclusion

In order to promote ‘inclusive development’ the banks have given more than 50 per cent of the total credit to the priority sector in the last five years. A substantial part of the bank advances have been directed towards the weaker sections too, like the minorities, the SCs, the STs, women and other weaker sections of the society.

More than 50 per cent of the demands for the recovery of outstanding loans have been recovered in Jharkhand. The non-performing assets (NPAs) of the banks in the state have mostly been about 6 per cent of their total outstanding advances. The recovery-performance of the private sector banks has been very high, as a result of which, their NPA has remained very low. The recovery of the RRBs and the Cooperative Banks, on the other hand, has remained very low. As a result, their NPAs have been very high.

The disbursement of Kisan Credit Card (KCC), conversion of KCC into Rupay debit cards and PM-KISAN Scheme have been initiated to support the

farmers. Similarly, Collateral Free Loan up to Rs.2.00 Crores in MSME, Stand Up India Loan Programme and Pradhan Mantri Mudra Yojana (PMMY) are being implemented for promoting MSME.

Schemes like the PMJDY, PMJJY, PMSBY, APY, etc. have been initiated in the country and in its provinces for the purpose of financial inclusion of those who are not covered by the banking services. The RBI has also planned for the expansion of bank-branches and banking outlets (BCs) for this purpose.

The banks in Jharkhand are implementing the Aatmanirbhar Bharat packages like Emergency Credit Line Guarantee Scheme (ECLGS), Credit Guarantee Scheme for Subordinate Debt (CGSSD), interest subvention for MUDRA-Shishu Loans, PM SVANidhi Scheme for Street Vendors and Agriculture Infrastructure Fund for providing credit support to all the economic agents whose activities got disrupted because of the COVID-19 pandemic.

**Annexure 3.1**

**Financial Inclusion**

Financial inclusion, in its broadest sense, refers to the delivery of monetary services at affordable cost to any or all sections, including the disadvantaged and the low-income groups. A committee on financial inclusion headed by Dr. C Rangarajan in 2008 defined financial inclusion as: “The process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups like weaker sections and low income groups at a reasonable cost.” During a similar vein, Dr. Raghuram Rajan’s committee on the financial sector - reforms defined financial inclusion as: “Expanding access to financial services like payment services, savings products, insurance products and inflation-protected pensions.” CRISIL defines financial inclusion as: “The extent of access by all sections of society to formal financial services like credit, deposit, insurance and pension services.”

The factors that affect financial inclusion are likely to be several and their interaction with one another is rather complex. There are many attempts within this orbit to live the extent of the financial inclusion which will be used for creating cross comparison between different states or different countries. Many times, types of indicators of the banking sector- outreach are employed to assess the stock of the status of economic inclusion. Here we try to meaningfully combine various banking sector indicators. The proposed FII may be a multi-dimensional index supported by the macroeconomic data on the banking sector-outreach which is borrowed from literature. We develop a Financial Inclusion Index for Jharkhand in a manner that it captures information on various dimensions ranging from a single number lying between 0 and 1. A higher value of FII implies a higher level of monetary inclusion.

**Methodology:**

The FII is computed by first computing ‘dimensions index’ for each dimension of the financial inclusion. The dimension index  $d_i$ , as computed by the formula (1), measures the state’s and district’s achievement in the  $i^{th}$  dimension  $i$ , indicating the relative importance of the dimension  $i$  in quantifying the inclusiveness of a financial system.

$$d_i = w_i \frac{A_i - m_i}{M_i - m_i} \text{ ----- (1)}$$

Where

$w_i$  = weight attached to the dimension  $i$ ,  $0 \leq w_i \leq 1$

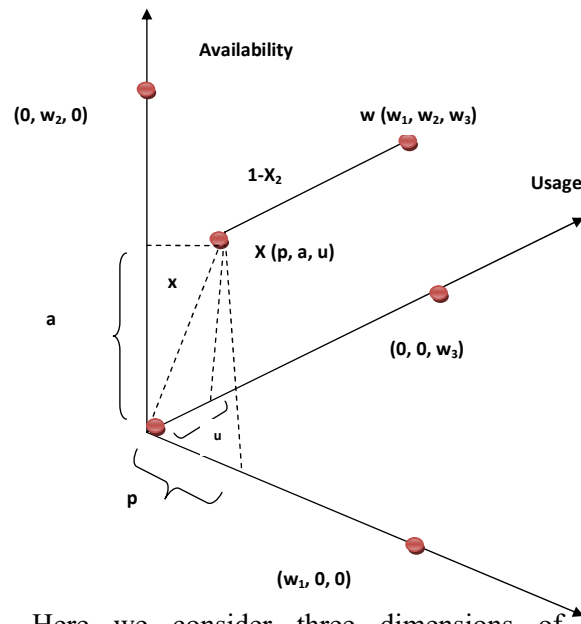
$A_i$  = actual value of dimension  $i$

$m_i$  = lower limit on the value of dimension  $i$ , fixed by some pre-specified rule.

$M_i$  = upper limit on the value of dimension  $i$ , fixed by some pre-specified rule.

Formula (1) ensures that  $0 \leq d_i \leq w_i$ . The higher the value of  $d_i$ , the higher the country’s achievement in dimensions  $i$ .

**Graphic explanation of FII:**



Here we consider three dimensions of financial inclusion- availability, penetration and usage of the financial services. In fig 1, each of these dimensions is represented by an axis in the three dimensional space. The point  $W = (w_1, w_2, w_3)$  represents the ideal point and Jharkhand’s achievements in these dimensions is depicted by the point  $X = (p, a, u)$ . All the districts that have an inclusive financial system should be closer to the ideal point  $W$  than any district that is less financially included. Similarly, districts with a more financially inclusive system should be far away from the point  $O$  than a less inclusive district. In other words, less distance between the points  $X$  and  $W$  and more distance between  $X$  and  $O$  will together indicate high financial inclusion in district  $X$ . In the FII formula, the normalized distance between  $X$  and  $O$  is given by the  $X1$  in formula (2) and that between  $X$  and  $W$  is given by the second component in formula (3). The normalized distance between  $X$  and  $W$  is a number that lies between 0 and 1 and if  $X$  has a highly financially inclusive system, then this normalized distance will be close to 0. While computing



the FII, the inverse normalized distance between X and W, computed as 1 minus the normalized distance is considered. This is given by X2 in formula (3) and this ensures that less distance between X and W implies high financial inclusion. The final index is computed by taking an average of X1 and X2.

$$X1 = (d_1^2 + d_2^2 + \dots + d_n^2)^{1/2} / (w_1^2 + w_2^2 + \dots + w_n^2)^{1/2} \quad (2)$$

$$X2 = 1 - [(w_1 - d_1)^2 + (w_2 - d_2)^2 + \dots + (w_n - d_n)^2]^{1/2} / (w_1^2 + w_2^2 + \dots + w_n^2)^{1/2} \quad (3)$$

$$FII = \frac{1}{2} [X1 + X2]$$

This benefit of using distance-based approach is that it gives importance to all the dimensions and also doesn't compensate the decrease in one dimension by an increase in another dimension. This method here also satisfies important mathematical properties.

1. Boundedness: The FII has well defined and meaningful bounds. It is bound below by 0 and bound above by 1.
2. Unit free measure: As each dimension index is unit free, hence the overall FII is also a unit free measure.
3. Homogeneity: Each dimension index  $d_i(A_i, m_i, M_i)$ , considered as a function of  $A_i, m_i$  and  $M_i$  is such that  $d_i(A_i, m_i, M_i) = d_i(\lambda A_i, \lambda m_i, \lambda M_i)$ , for any scalar  $\lambda > 0$ . Thus, the dimension indexes are homogenous functions (of degree zero). It follows that the overall index FII is also homogeneous of degree 0; i.e.,  $FII[d_1(A_1, m_1, M_1), d_2(A_2, m_2, M_2), \dots, d_n(A_n, m_n, M_n)] = FII[d_1(\lambda_1 A_1, \lambda_1 m_1, \lambda_1 M_1), d_2(\lambda_2 A_2, \lambda_2 m_2, \lambda_2 M_2), \dots, d_n(\lambda_n A_n, \lambda_n m_n, \lambda_n M_n)]$ .

This property basically implies that if there are any changes within the same scale, say, a constant in all the arguments of a dimension index i.e.,  $A_i, m_i, M_i$ , then the dimension index  $d_i$  will not change. Hence there will not be any change in the Financial Inclusion Index either.

4. Monotonicity: The FII is a monotonous function of the dimension indices. This means that higher values in the dimension indices (i.e., higher levels of financial inclusion) will give the higher values of FII.

**Let us see the dimensions:**

**Banking penetration (dimension 1): Weight=1/3**

d1=No. of deposits account per 10,000 population

d2=No. of agricultural loan account per 10,000 population

d3=No. of non-agricultural loan account per 10,000 population

**Availability of banking services (dimension 2): Weight=1/3**

d4=No. of commercial bank branches per 25 square kilometer. 3/6

d5=No. of commercial bank branches per 10,000 population

**Usage (dimension 3): Weight=1/3**

d6=Volume of credit + deposits per capita

**Results:**

**FII values for Jharkhand, 2011 and 2017.**

District	2011	2017
Bokaro	0.060517	0.083142
Chatra	0.036806	0.053169
Deoghar	0.059937	0.06516
Dhanbad	0.062231	0.078403
Dumka	0.062246	0.068845
Garhwa	0.035509	0.045664
Giridh	0.038842	0.047774
Godda	0.048473	0.06152
Gumla	0.051145	0.05825
Hazaribagh	0.052148	0.078013
Jamtara	0.055714	0.068897
Khunti	0.053438	0.068774
Kodarma	0.0489	0.071495
Latehar	0.035048	0.057904
Lohardaga	0.059323	0.083596
Pakur	0.041179	0.053389
Palamu	0.050018	0.058455

District	2011	2017
Pashchimi Singhbhum	0.056886	0.068191
Purbi Singhbhum	0.088998	0.106932
Ramgarh	0.058508	0.076046
Ranchi	0.089414	0.118089
Sahibganj	0.046844	0.055889
Saraike-la-Kharsawan	0.052243	0.076574
Simdega	0.045159	0.056578

Source: Author’s Calculation from RBI dataset

Thus, the above tables indicate that there is a general tendency towards improvement in financial inclusion in the districts at all levels of development. The FII values computed for the various districts for the years 2011 and 2017 indicate that districts around the world are at various levels of financial inclusion. Most of the high FII districts are also high-income districts, for example the capital city Ranchi. For a better understanding of inter district-disparity we map the Financial Inclusion Index in the next section.

### Cartographic Understanding

It is clearly evident from the above table that there

has been an increase in the availability of financial services as well as in the usage of these services by the people of Jharkhand. The maps below basically reflect that though there is an overall improvement in all the districts, disparity still remains.. Garhwa, Chatra and Giridh remain the least financially included states. The financial inclusion in Latehar improved at a higher rate over the years and it became a better financially included district in 2017, whereas Pakur’s financial inclusion did not improve over the years and it became the least financially included district in 2017. The Index of financial inclusion rose at a great rate for Lohardaga and Bokaro compared to Dhanbad and Dumka as they became the highest financially included districts in 2017.

In Fig 2 we can see the Santhal Paraganas, in the north-east of the state like Jamtara and Pakur, are the less financially included districts. The districts like Dhanbad, Bokaro, Ranchi, Purbi Singhbhum, Hazaribagh, Ramgarh, and Saraikela-Kharsawan are districts with the highest financial inclusion. These districts are more urbanized and industrialized. On development, indicators related with eight major dimensions of development found that the corridor which starts from the east and ends at the south-east, where the districts of Dhanbad, Bokaro, Ramgarh, Ranchi, Saraikela-Kharsawan and Purbi Singhbhum are located, is more developed than the districts in the north-west and north-east of the state(Draft Jharkhand Vision & Action Plan 2018-21).

**Map 1: Financial Inclusion Index in Jharkhand in 2011**



Source: Author’s Calculation from the RBI dataset

**Map 2: Financial Inclusion Index in Jharkhand in 2017**



*Source: Author's Calculation from the RBI dataset*

**Box Story: PMJDY**

The following figure shows the trend in the financial inclusion index over the years, from 2011 to 2017. PMJDY was implemented in 2014, and there was a sudden improvement in the Financial Inclusion Index

after 2016. It shows that there has been an improvement in the overall indicators of financial services: financial penetration, financial availability and financial usages.

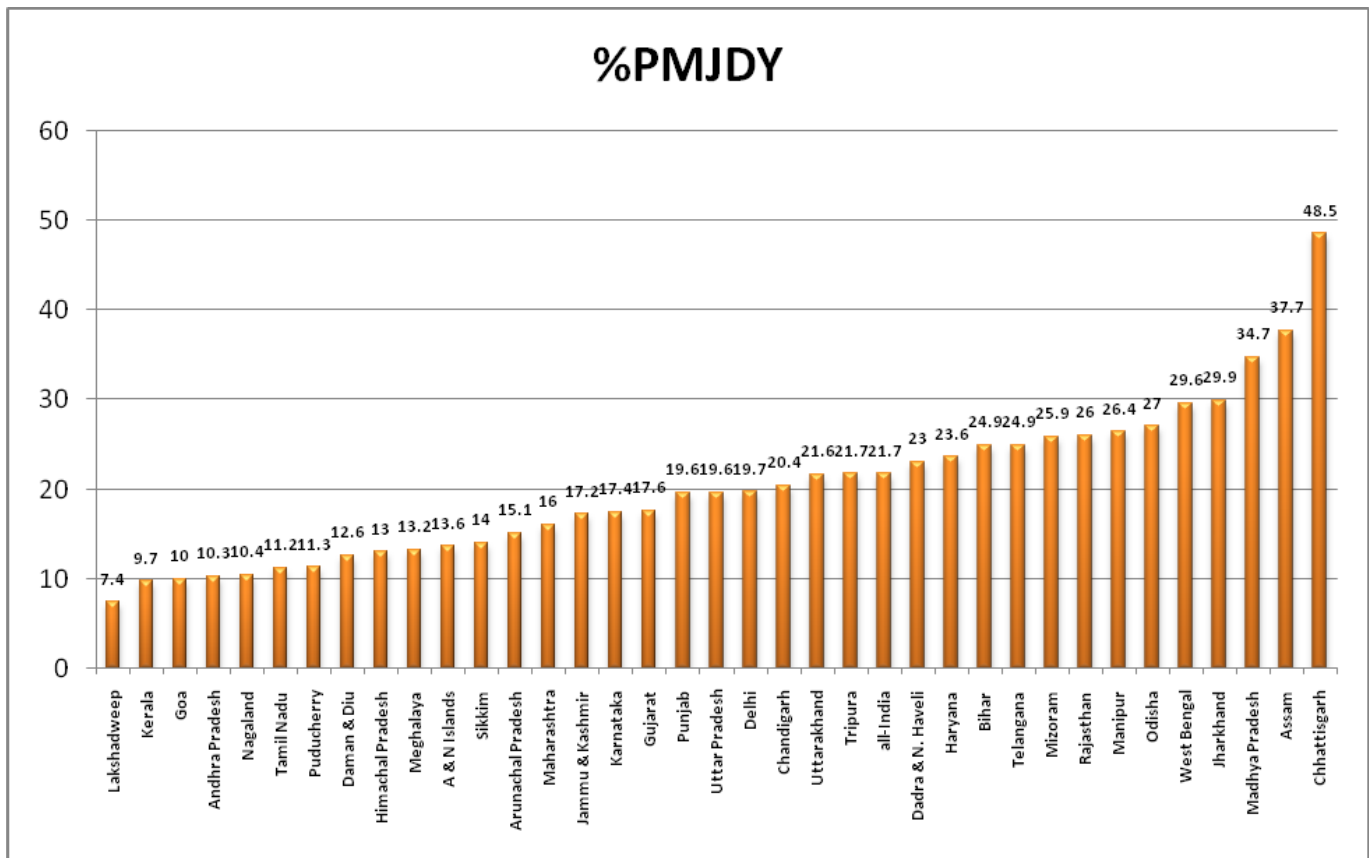


*Source: Author's Calculation from the RBI dataset*

The PMJDY data for 29 states and 7 union territories in India are provided in the following table and arranged in the decreasing order of percentage of PMJDY accounts with respect to the state population. This measure reflects the success of the scheme in the state (the higher the percentage, the better is the performance of the state in providing PMJDY accounts to the population in the state). The chart for the percentage of PMJDY accounts with respect to the state population shows that 12 states and 1 union territory have a higher percentage

than the overall percentage of all India. Among all the states, the PMJDY scheme has been implemented most successfully in Chhattisgarh (49%). Assam and Madhya Pradesh have also performed well with more than 35% of PMJDY accounts with respect to the state's population. Delhi, Chandigarh and Mizoram have a larger number of PMJDY accounts in the urban population than in the rural population. Jharkhand performs better than the National Average.

**Fig 1: Percentage of PMJDY accounts with respect to the state population**



*Note: % PMJDY denotes the percentage of PMJDY account holders of the whole population in each state*



# Chapter 4

## Rural Development and Panchayati Raj





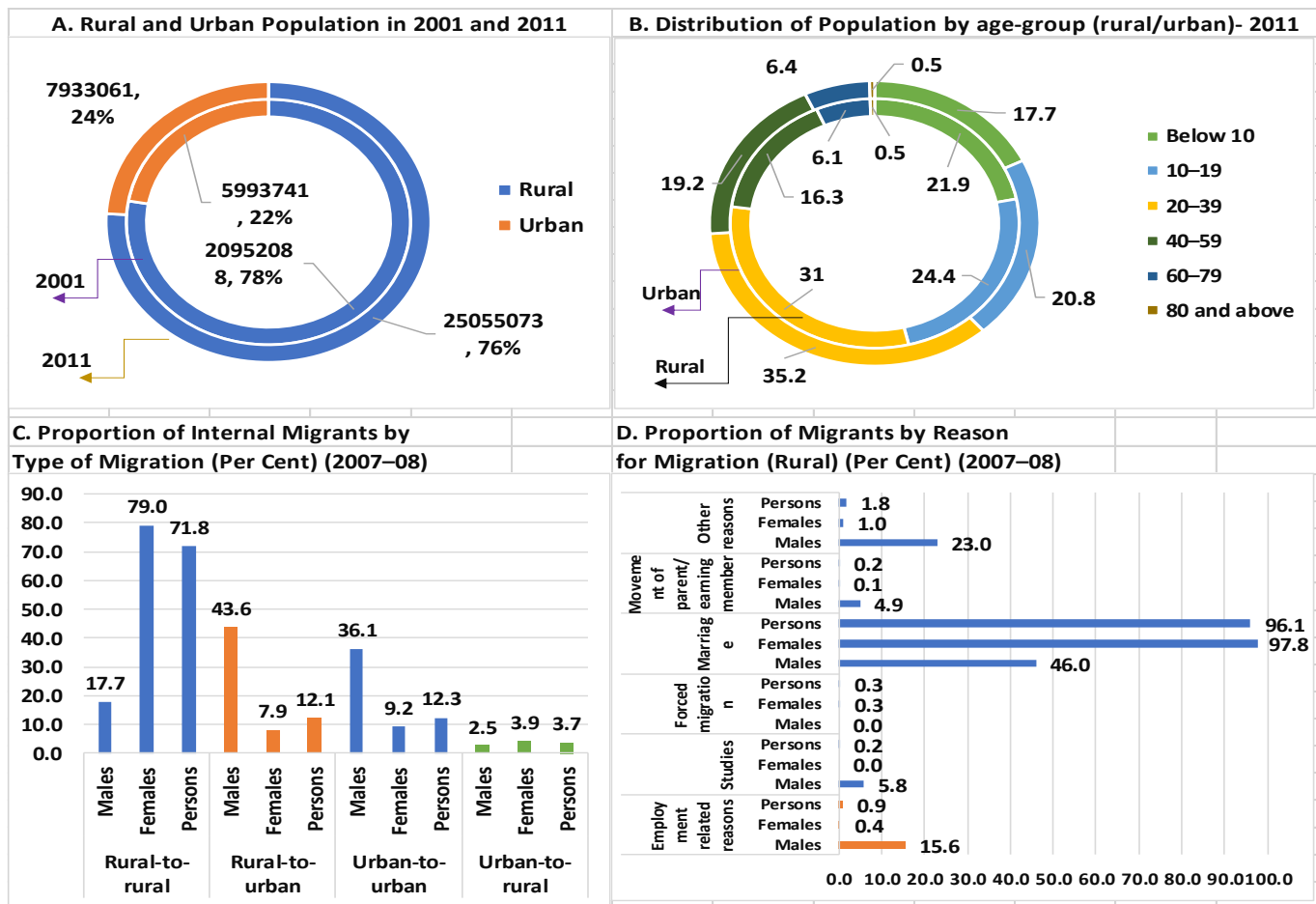
The Department of Rural Development, government of Jharkhand is committed to improve the overall quality of life of rural people of Jharkhand. The various schemes implemented by it have enhanced rural infrastructure, increased livelihood-opportunities of the rural population, provided them social assistance and have ensured them social security. It has also ensured people’s participation in governance by strengthening the Panchyati Raj Institutions.

The development of rural infrastructure, creation of job opportunities, provision of social assistance to the deprived and needy people and strengthening local governance are the priorities of this department. Roads and houses have been constructed in rural areas of the state through Pradhan Mantri Gram Sadak Yojana (PMGSY) and the Pradhan Mantri Awas Yojana – Gramin (PMAY-G). Employment opportunities have been created for rural people through MGNREGA and the newly initiated programmes like Birsa Harit

Gram Yojana, Neelambar Pitambar JAL Sammridhi Yojana and Veer Sahid Poto Ho Khel Vikas Scheme. Opportunities for self-employment are being created by promoting self-help groups (SHGs) under the Jharkhand State Livelihood Promotional Society (JSLPS) and under the Deen Dayal Upadhyaya Grameen Kaushalya Yojana which is a part of the National Rural Livelihood Mission. Assistance is being provided to the deprived and needy people through the National Social Assistance Programme (NSAP).

This chapter presents the progress made in rural development on the fronts of livelihood-opportunities, rural infrastructure, social assistance, self-governance and above all, improvement in the quality of life in rural areas. The chapter has been organised under two sections. Section-A deals with schemes related to employment-generation, infrastructure-building and social assistance whereas, section-B discusses the progress made in the field of local self-governance.

**Figure 4.1: A demographic profile of rural economy of Jharkhand**



Source: Census 2011.



**Section-A: Economic Development of Jharkhand**

**A demographic profile of rural economy of Jharkhand**

As per the census of 2011, the proportion of rural population of Jharkhand is 76% out of which 31% are in the age group of 20-39 years whereas, 16.3% are in the age group of 40-59 years. Thus, more than 47% of rural population fall in age group of working individuals. The estimates on internal migration suggest that 43.6% of rural males migrate from rural areas to urban areas in Jharkhand. The proportion of rural to urban migration is 7.9% for females and the overall migration is 12.1%. It is also noticeable that 15.6% migration of rural males is due to employment-related reasons (Figure 4.1).

**Livelihood-Opportunities- Employment Generation**

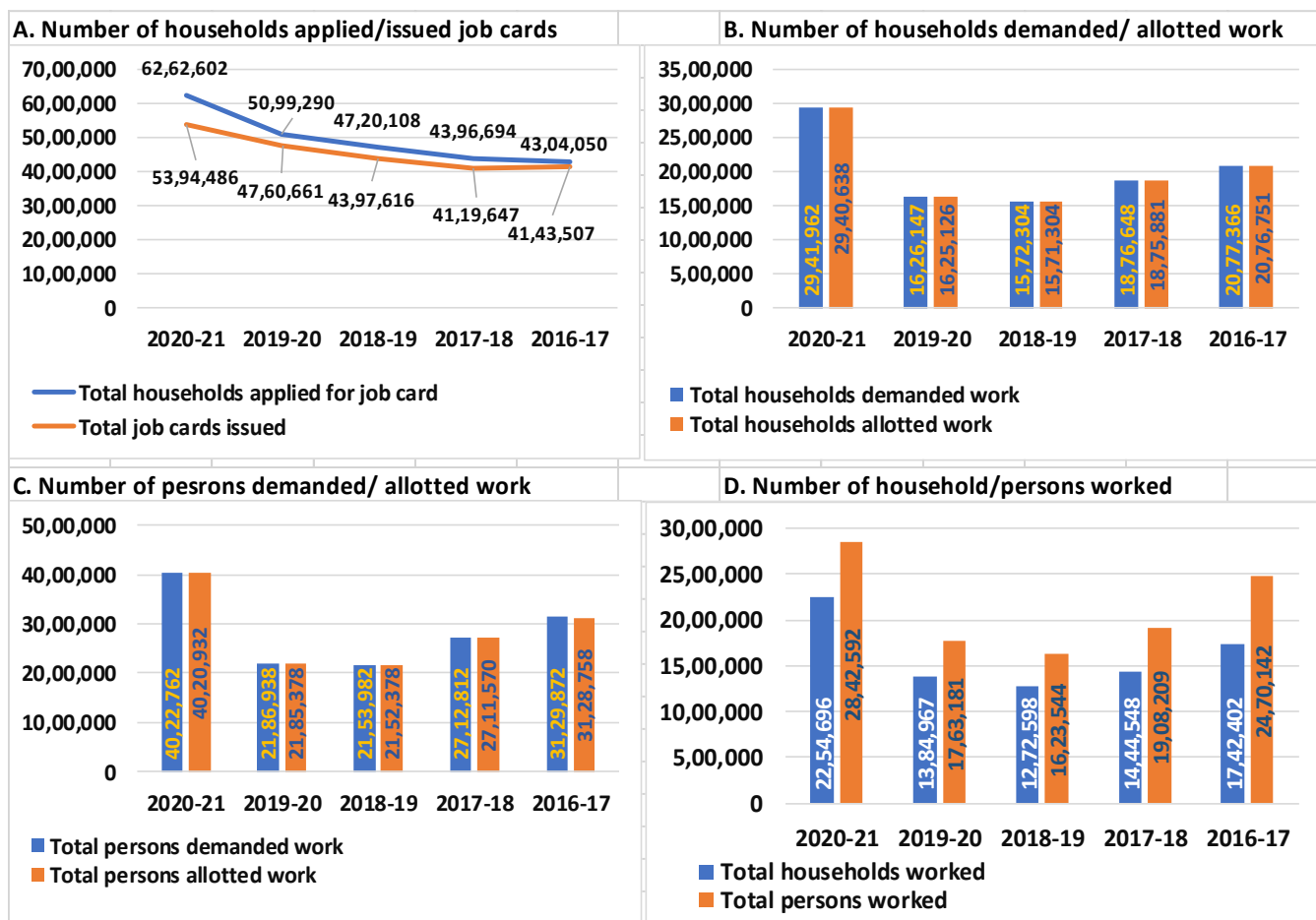
**Mahatma Gandhi National Rural Employment Guarantee Act (MGNRGA)**

Since its implementation in 2006, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNRGA)

continues to be the biggest employment generation programme in Jharkhand. The progress of MGNREGA has been quite impressive and it has created lots of livelihood opportunities for the rural population in the state. MNREGA is operational in all the 24 districts, 263 blocks and 4,403 gram panchayats in Jharkhand.

As in January 2021, there are 103.72 lakh registered workers under MNREGA in Jharkhand out of which 41.11 lakh workers are active workers. The proportion of the ST and the SC workers out of the total number of active workers is 27.64% and 10% respectively in the state. Similarly, the total number of issued job cards and the total number of active job cards are 62.69 lakhs and 31.63 lakh respectively. Looking at MNREGA as the most significant among all the schemes of rural development, the following discussions highlight its progress in the current financial year and the progress-trend in the few previous financial years in Jharkhand.

**Figure 4.2: Status of the demand and supply of job cards and works under MNREGA in Jharkhand**



Source: [https://nregarep2.nic.in/netnrega/dynamic2/DynamicReport\\_new4.aspx](https://nregarep2.nic.in/netnrega/dynamic2/DynamicReport_new4.aspx) (29.01.2020)

### Achievements in terms of the demand and supply of job cards and works

Figure 4.2 shows the trend in the demand and supply of job cards and works over a period of five years. There has been a consistent increase in the number of households which applied for the job card as well as those which got the job card. In the FY 2016-17 about 43.04 lakh households applied for the job card and 41.43 lakh (96.27%) households got it. Similarly, in the FY 2019-20, about 50.99 lakh households applied for the job card and 47.60 (93.36%) got it. In the present FY 2020-21, till 29th January, more than 62.62 lakh households applied for the job card and more than 53.94 lakh (86.14%) households have already received it. Out of the total job cards issued in the FY 2020-21, about 5.74 lakh (10.7%) have been issued to SC households and about 16.48 lakh (30.6%) job cards have been issued to ST households.

It is quite remarkable that the total number of households and individuals who demanded as well as worked in the FY 2020-21 are significantly higher in comparison to the previous four years. The total number of households and individuals who demanded work in the FY 2019-20 were 16.26 lakhs and 21.86 lakhs respectively whereas, in the FY 2020-21 the same numbers have increased to 29.41 lakhs and 40.22 lakhs respectively. Similarly, the number of households and individuals who have worked in the FY 2020-21 are 22.54 lakhs and 28.45 lakhs respectively. In terms of the demand for work by the households or individuals, the allotment has always matched that by more than 99.9% in all these years.

### Achievements in employment-generation, work completed and financial progress

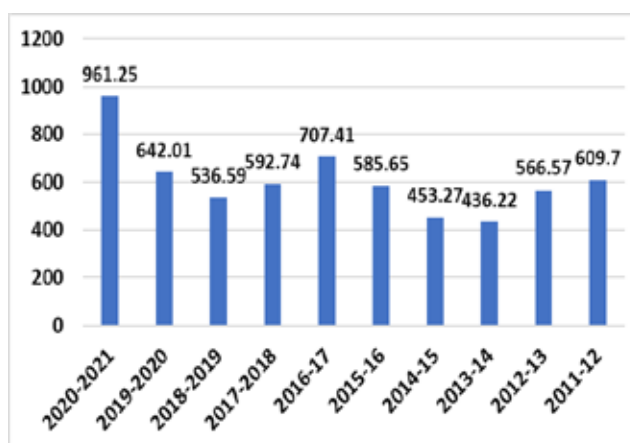
Table 4.1 shows the overall progress of MNREGA in Jharkhand, particularly the progress made in employment generation, work completed and financial progress.

#### Employment generation

In the FY 2020-21 more than 961 lakh person days of employment have been generated and it is 49.73% higher

than that of 642 lakhs generated in the FY 2019-20. The total number of households which have completed 100 days of wage employment has also increased in the FY 2020-21. It is 49,093 as against 30,989 in the FY 2019-20. About 9.2 thousand differently abled persons have also worked in MNREGA during the FY 2020-21. The average wage rate has also increased in the FY 2020-21 to 193.98 from 170.98 in the FY 2019-20. Figure 4.3 shows that the employment generation under MNREGA has increased significantly over the years in Jharkhand.

**Figure 4.3: Total Person-days generated under MANREGA in Jharkhand (in lakhs)**



Source: <https://nregarep2.nic.in/netnrega/dynamic2/Report-Generated.aspx>

#### Works completed

As per Table 4.2, the total number of works (new + spill over) taken up in the FY 2020-21 are 12.51 lakhs. Out of these more than 3.88 lakh (31%) works are complete whereas, 8.63 lakh (69%) pieces of work are still ongoing, as reported till 31.01.2021. In the FY 2019-20, about 3.52 lakh (40%) works were completed out of 8.75 lakh works taken up. Table 4.1 shows the total number of assets created during 2020-21. At the gram panchayat level 3,75,016 assets have been created whereas, 2 assets have been created at the panchayat-samiti-level.

**Table 4.1: Status of works completed/Assets created in the FY 2020-21 (as on 02.02.2021)**

Works	Gram Panchayat	Panchayat Samiti	Zilla Panchayat	Total
Anganwadi/other Rural Infrastructures	394	0	0	394
Drought Proofing	119	1	0	120
Rural Drinking Water	2b	0	0	2

Works	Gram Panchayat	Panchayat Samiti	Zilla Panchayat	Total
Flood Control and Protection	108	0	0	108
Micro Irrigation Works	5022	0	0	5022
Works on Individuals Land (Category IV)	350032	0	0	350032
Land Development	4225	0	0	4225
Other Works	41	0	1	42
Play Ground	1	0	0	1
Rural Connectivity	1185	0	0	1185
Rural Sanitation		1	0	1
Bharat Nirman Rajeev Gandhi Sewa Kendra	16	0	0	16
Water Conservation and Water Harvesting	13672	0	0	13672
Renovation of traditional water bodies	199	0	0	199
Total	375016	2	1	375019

Source: [https://mnregaweb2.nic.in/netnrega/citizen\\_html/wrkstatlink1.aspx?lflag=local&state\\_code=34&state\\_name=-JHARKHAND&workstatus=05&project=ALL&fin\\_year=2020-2021&page=S&Digest=KlNy8b+XXyG/dJOz151fw](https://mnregaweb2.nic.in/netnrega/citizen_html/wrkstatlink1.aspx?lflag=local&state_code=34&state_name=-JHARKHAND&workstatus=05&project=ALL&fin_year=2020-2021&page=S&Digest=KlNy8b+XXyG/dJOz151fw)

### Financial progress

The Centre has released Rs. 2606.62 crores to Jharkhand for the FY 2020-21 out of which Rs. 2321.70 crores have been spent till 30th January 2020. Thus, 89.07% of the total released/available funds have already been utilized. The total released funds of the FY 2020-21 are almost the double of the total funds (Rs. 1311.14 crores) released in the FY 2019-20. Out of the total expenditure made in the

FY 2020-21, about 80% goes to wage bill, about 17.68% goes for material payments and about 2.58% to the administrative expenditures. It is a highlighted fact here that the proportion of the current year's administrative expenditure is quite less compared to that of the previous financial year, where it was 4.64%.

**Table 4.2: Progress of MNREGA in Jharkhand (As on 30-01-2021)**

Progress: Employment and Wages	2020-2021	2019-2020	2018-2019	2017-2018
Approved Labour Budget [In Lakhs]	1000	700	700	700
Person days Generated so far [In Lakhs]	961.25	642.01	536.59	592.74
% of Total Labour Budget (LB)	96.13	91.72	76.66	84.68
% as per Proportionate LB	96.32			
SC person days % as of total person days	9.43	10.66	11.24	11.05
ST person days % as of total person days	25.68	25.2	26.83	28.68
Women Person days out of Total (%)	42.08	41.31	39.22	37.33
Average days of employment provided per Household	42.55	46.36	42.17	41.03
Average Wage rate per day per person (Rs.)	193.98	170.98	167.99	167.98
Total No of HHs completed 100 Days of Wage Employment	49,093	30,989	25,985	57,524
Total Households Worked [In Lakhs]	22.59	13.85	12.73	14.45

<b>Progress: Employment and Wages</b>	<b>2020-2021</b>	<b>2019-2020</b>	<b>2018-2019</b>	<b>2017-2018</b>
Total Individuals Worked [In Lakhs]	28.48	17.63	16.24	19.08
Differently abled persons worked	9275	6577	6227	7253
<b>Progress: Works and Expenditures</b>				
Number of GPs with NIL exp.	149	164	146	127
Total No. of Works Taken up (New+Spill over) [In Lakhs]	12.51	8.75	9.01	9.34
Number of Ongoing Works [In Lakhs]	8.63	5.23	4.95	6.49
Number of Completed Works	3,88,498	3,52,472	4,06,402	2,85,129
% of NRM Expenditure(Public + Individual)	78.19	66.26	60.26	51.78
% of Category B Works	67.22	79.87	84.14	80.18
%of Expenditure on Agriculture & Agriculture Allied Works	95.1	97.43	94.47	92.09
<b>Financial Progress</b>				
Total centre Release	260662.42	131114.93	153805.66	135264.57
Total Availability	260662.42	143651.93	153805.66	155718.69
Percentage Utilization	89.07	118.34	98.92	98.16
Total Exp. (Rs. in Lakhs.)	2,32,170.19	1,69,995.35	1,52,137.07	1,52,851.07
Wages (Rs. In Lakhs)	1,86,194.81	1,09,141.59	90,371.31	99,643.48
Material and skilled Wages (Rs. In Lakhs)	39,981.98	52,974.02	54,554.72	45,845.03
Material (%)	17.68	32.68	37.64	31.51
Total Admin. Expenditure (Rs. in Lakhs.)	5,993.40	7,879.73	7,211.04	7,362.56
Admin.Exp. (%)	2.58	4.64	4.74	4.82
Average Cost Per Day Per Person (In Rs.)	238.23	255.83	251.35	198
% of Total Expenditure through EFMS	99.95	99.89	99.87	99.86
% payments generated within 15 days	100	99.99	98.93	95.12

Source: [http://mnregaweb4.nic.in/netnrega/all\\_lvl\\_details\\_dashboard\\_new.aspx?Fin\\_Year=2020-2021&Digest=ueg%2fHt-V54GGJ8ZQ6GUB2ew](http://mnregaweb4.nic.in/netnrega/all_lvl_details_dashboard_new.aspx?Fin_Year=2020-2021&Digest=ueg%2fHt-V54GGJ8ZQ6GUB2ew)

### **Achievements in the district-wise outlays and outcomes during the Financial Year 2020-2021**

In terms of the district-wise achievements under MNREGA, Giridih is at the top in terms of outlays as well as outcomes followed by Garhwa and Palamu. The total cumulative expenditure during the FY 2020-21 in Giridih is Rs. 220.79 crores and the total number of person days created is about 94.32 lakhs. More than 36.1 thousand works have also been completed here.

Rs. 183.22 crores have already been spent in Garhwa and 70.04 lakh person days of employment have been created through that. Similarly, 60.62 lakh person days have been generated by spending Rs. 135.58 crores in Palamu. In terms of outlays and outcomes, Lohardaga has the last rank in the FY 2020-21. Here, 13.2 lakh person days have been created by spending Rs. 30.53 crores. Figure 4.4 shows the outlays and outcomes of all the districts during the FY 2020-21.

**Figure 4.4: District-wise outlays and outcomes during the Financial Year 2020-2021  
(till 02.02.2021)**

District	Outlays (Rs. In lakhs)				Outcomes				
	On un-		Adm.Exp.	Total	Employment provided			Works	
	skilled	Wage			Household	Persons	Persondays	completed	in-progress
Bokaro	7248.14	1150.93	206.23	8605.3	88868	113084	3707768	13799	33292
Chatra	6799.47	1861.65	210.47	8871.59	87798	106364	3514848	19711	36209
Deoghar	9183.53	2105.42	298.43	11587.38	109327	129951	4730792	18731	46567
Dhanbad	6562.02	1031.47	225.1	7818.59	81792	100958	3386486	19066	27282
Dumka	9645.91	741.93	314.41	10702.25	110538	130133	4982646	12874	58419
East Singhbhum	7099.22	2054.3	274.45	9427.97	100319	138498	3658432	16364	46068
Garhwa	13567.37	4349.01	405.65	18322.03	157395	215976	7004279	26435	65141
Giridih	18186.09	3472.07	421.15	22079.31	214418	249828	9432472	36159	59170
Godda	9128.75	2662.37	229.03	12020.15	101793	125340	4696077	17943	34353
Gumla	6696.82	1178.06	272	8146.88	75091	99362	3452006	10716	36606
Hazaribagh	8545	2228.63	224.89	10998.52	109720	132464	4405810	21410	27699
Jamtara	8918.08	1188.57	181.64	10288.29	89240	111177	4605849	15248	26694
Khunti	3656.9	823.88	178.72	4659.5	43843	56257	1883974	10720	19643
Koderma	4220.87	527.37	120.48	4868.72	49220	57243	2167040	7729	13295
Latehar	8382.17	1777.35	213.16	10372.68	89123	108815	4353819	15627	27358
Lohardaga	2582.57	363.09	107.85	3053.51	34269	51140	1321166	8089	13145
Pakur	5453.04	1308.5	133.73	6895.27	66094	80264	2805133	16506	29406
Palamu	11657.22	1522.21	378.58	13558.01	164549	216472	6062960	29950	73483
Ramgarh	3343.7	1323.76	133.99	4801.45	39156	52416	1730422	6017	12652
Ranchi	8998.72	3213.89	440.93	12653.54	118183	157009	4647362	21248	48500
Sahebganj	6395.22	1413.2	206.67	8015.09	87038	99045	3285628	14425	36694
Saraikela Kharsawan	7694.55	615.89	155.97	8466.41	85373	119666	3949857	9710	28478
Simdega	6433.62	2054.72	196.7	8685.04	69918	92051	3298428	14645	27762
West Singhbhum	7306.91	1549.04	389.23	9245.18	96668	117970	3814033	9435	36514
<b>Total</b>	<b>187705.89</b>	<b>40517.31</b>	<b>5919.46</b>	<b>234142.7</b>	<b>2269733</b>	<b>2861483</b>	<b>96897287</b>	<b>392557</b>	<b>864430</b>

Source: [https://mnregaweb2.nic.in/netnrega/state\\_html/outlayvscomest.aspx?lflag=local&state\\_code=34&state\\_name=-JHARKHAND&fin\\_year=2020-2021&page=s&Digest=gkebEY2oc7ysxJ8FP4FA](https://mnregaweb2.nic.in/netnrega/state_html/outlayvscomest.aspx?lflag=local&state_code=34&state_name=-JHARKHAND&fin_year=2020-2021&page=s&Digest=gkebEY2oc7ysxJ8FP4FA)

**Box-4.1: Three schemes to add rural jobs - Birsa Harit Gram Yojana, Neelambar Pitambar JAL Sammriddhi Yojana and Veer Shahid Poto Ho Khel Vikas Scheme**

The Chief Minister Hemant Soren unveiled in Ranchi three schemes on Monday (4th July, 2020) to create wage-employment in rural areas of Jharkhand. These are- Birsa Harit Gram Yojana (BHGY), Neelambar Pitambar JAL Sammriddhi Yojana (NPJSY) and Veer Shahid Poto Ho Khel Vikas Scheme (VSPHKVS). The three schemes have been devised to operate in convergence with the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

The BHGY envisages an afforestation programme that would cover more than two lakh acres of unused government fallow land. As part of the scheme, about five lakh families would each be provided with 100 fruit bearing plants. Initial plantation, maintenance, land work and afforestation would be taken up through the MNREGA. The government aims to plant more than 5 crore fruit bearing plants in the next few months.

It is estimated that each family would receive an annual income of Rs. 50,000 from the fruit harvest after three years while the ownership of land would remain with the government. BHGY is expected to generate about 25 crore person days of work in the next 5 years.

With the NPJSY, the government aims to create agro-water storage units by arresting rainwater and ground water run-off. Almost 5 lakh acres of cultivable land can be irrigated through this. Marginal land holders and farmers would be able to store an increased volume of 5 lakh crore litres of rain and ground water every year. An estimated 10 crore person days are expected to be generated in the next 4-5 years through this scheme, which would primarily be focused on the drought-hit region of the Palamu division.

The VSPHKVS has been conceived as a grassroots sport's infrastructural scheme, that would function in close convergence with the MNREGA. As many as 5,000 sports grounds would be developed across the state with at least one each in all the 4,300 panchayats. The government hopes to generate 1 crore person days through the scheme in the current financial year through this scheme.

The government intends to spend Rs. 20,000 crores towards the payment of wages in these labour-intensive schemes.

These schemes have been announced keeping in mind the high unemployment rate in rural Jharkhand and the possibility of a steep increase in unemployment in rural areas following the expected return of a large number of stranded migrant workers from the other states. More than 6.61 lakh migrant labourers are reported to have been stranded at 14,948 locations outside the state during the lockdown, according to the state's Labour, Planning and Training Department.

### Rural Infrastructure: All weather roads

A wide network of all-weather roads is significant not only in increasing rural connectivity but also in faster and sustainable rural development. Different schemes for the construction of rural roads in the state are running in collaboration with the Pradhan Mantri Gram Sadak Yojana (PMGSY). Jharkhand State Rural Roads Development Authority is the nodal agency which looks after the construction of rural roads in the state.

### Progress under PMGSY in Jharkhand

The Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched at the end of the FY 2000-01. The primary objective of this Yojana is to provide connectivity, by way of all-weather roads (with necessary culverts and cross drainage structures which are operable throughout the year) to rural habitations. It was launched by the government of India as part of a poverty-reduction strategy. Through this scheme the government intends to set high and uniform technical and management

standards and facilitate policy development and planning at the state level in order to ensure sustainable management of rural roads-network. Table 4.3 shows the overall progress of PMGSY in Jharkhand since its launch. Under this scheme more than 25.5 thousand kms. of rural roads have already been completed in Jharkhand and it is 3.96% of the total length of rural roads completed in India. It is a highlighted fact here that out of the total works (7,561) cleared more than 86.5% (6,541) are new connectivity works. New connectivity implies the construction of roads from the earthwork stage to the desired specifications.

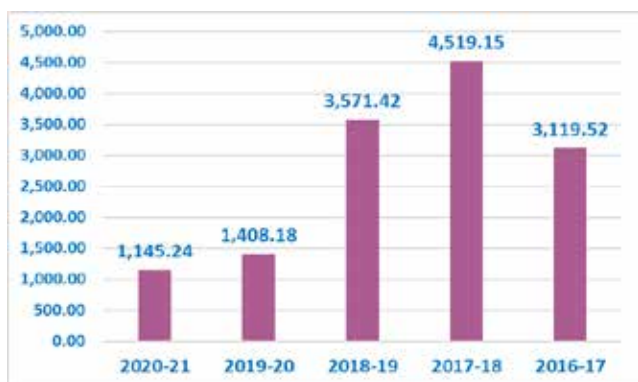
Figure 4.5 shows the progress of PMGSY in terms of the completed length of rural roads between the FY 2016-17 till the FY 2020-21 (up to February 2021). Out of the total length of roads completed under this scheme, more than 53% (13,763.5 out of 25,543) have been completed in the last five financial years. Up to February 2021, about 1,145 kms. of rural roads have been completed in the FY 2020-21.

**Table 4.3: Progress under the PMGSY in Jharkhand (as on 03.02.2021)**

Activities	Jharkhand	India	Jharkhand in proportion to India (in %)
Number of works cleared	7,561	1,78,335	4.24
New connectivity works	6,541	1,19,372	5.48
Upgradation works	1,020	58,963	1.73
Completed road works	6,787	1,61,076	4.21
Completed length of roads (in kms.)	25,543	6,45,817	3.96
In-progress road works (completed and cleared)	774	17,259	4.48
Number of complaints registered on Meri Sadak	2,250	1,25,440	1.79

Source: Dashboard-Jharkhand, PMGSY (<http://omms.nic.in/Home/CitizenPage/>)

**Figure 4.5: Year-wise progress in total length (in kms.) of rural roads completed**



Source: PMGSY, Online Management, Monitoring and Accounting System (OMMAS)

**District-wise progress under PMGSY in completing rural roads**

Gumla, West Singhbhum and East Singhbhum are the top three performer districts in Jharkhand in terms of the completed length (in kms.) of rural roads between the FY 2016-17 and the FY 2020-21. In these five financial years, these three districts have completed 1,448.46 kms., 1,408.05 kms. and 1,020.9 kms. respectively. In this list, Dhanbad and Koderma are the two bottom performers where the total length of roads completed is just 94.33 kms. and 129.43 kms. respectively (Figure 4.6).

**Figure 4.6: District-wise progress under the PMGSY in completing rural roads (in kms.)**

District	Completed Length (in kms.)					Total
	2020-21	2019-20	2018-19	2017-18	2016-17	
Bokaro	52.194	41.774	122.394	254.965	56.05	527.377
Chatra	59.758	114.365	296.095	163.449	236.808	870.475
Deoghar	34.311	4.015	10.739	71.313	68.163	188.541
Dhanbad	24.012	8.3	14.075	24.947	23	94.334
Dumka	51.705	26.053	79.552	128.57	121.25	407.13
East Singhbhum	63.182	60.597	172.486	398.154	326.477	1020.896
Garhwa	47.196	76.929	201.242	169.074	7.064	501.505
Giridih	68.731	77.948	151.391	277.289	351.716	927.075
Godda	26.225	10.729	39.479	118.906	87.572	282.911
Gumla	91.493	246.19	541.379	425.782	143.617	1448.461
Hazaribagh	51.954	85.905	220.471	258.523	165.397	782.25
Jamtara	20.668	1.77	37.96	81.534	63.56	205.492
Koderma	18.73	1.483	55.732	21.233	32.255	129.433
Latehar	42.525	127.055	201.51	195.698	175.517	742.305
Lohardaga	38.408	38.385	136.123	115.357	64.325	392.598
Pakur	16.816	7.92	17.155	87.335	162.685	291.911
Palamu	74.022	131.42	199.47	161.465	248.065	814.442
Ranchi	60.167	31.941	132.796	218.844	169.956	613.704
Sahebganj	16.49	5.07	35.783	119.531	38.298	215.172
Saraikela Kharsawan	24.13	9.287	75.345	141.581	90.237	340.58
Simdega	52.958	80.614	225.539	240.582	62.447	662.14
West Singhbhum	87.389	75.969	371.087	534.229	339.379	1408.053
Ramgarh	23.677	10.932	19.743	75.514	20.17	150.036
Khunti	98.5	133.525	213.873	235.27	65.509	746.677
<b>Total</b>	<b>1,145.24</b>	<b>1,408.18</b>	<b>3,571.42</b>	<b>4,519.15</b>	<b>3,119.52</b>	<b>13763.5</b>

Source: PMGSY, Online Management, Monitoring and Accounting System (OMMAS)

## Social Assistance to Rural People – Housing and Pension

### PMAY-G: Housing for all by 2022

The Pradhan Mantri Awas Yojana – Gramin (PMAY-G) to achieve “Housing for All by 2022” was launched on 20th November, 2016 by restructuring the erstwhile rural housing programme, Indira Awaas Yojana (IAY). Under this scheme, Jharkhand has already constructed 7,51,571 houses out of the total of 12,72,916 houses to be constructed by 2022. The total amount allocated for the PMAY-G to Jharkhand is Rs. 5,347 crores, out of which Rs. 1,674 crores have been released to the state and Rs. 2,964 crores have been utilized. Table 4.4 and

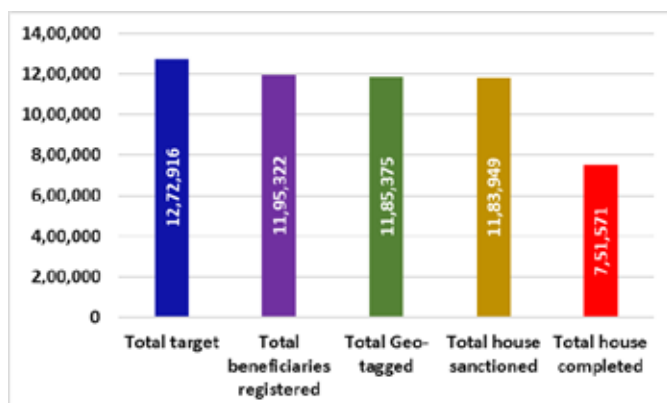
Figure 4.7 show the overall achievements made under the PMAY-G in Jharkhand since 2016-17. Out of the total number of beneficiaries registered under this scheme more than 93% have been sanctioned a house and about 63% of these sanctioned houses have been completed too. Figure 4.8 shows the cumulative progress in constructing houses in the state and it is clear in that the state lags behind the target by 5,21,345 houses as on 02.02.2021.

**Table 4.4: Progress of PMAY-G in Jharkhand**

Key parameter indicators	Total	2020-21	2019-20	2018-19	2017-18	2016-17
	Value					
Total targets	12,72,916	4,22,125	3,22,000	1,38,884	1,59,052	2,30,855
Total no. of beneficiaries registered	11,95,322	3,23,815	3,28,164	1,37,724	1,63,783	2,41,836
Total Geo-tagged	11,85,375	3,18,375	3,26,123	1,37,043	1,63,172	2,40,662
Total no. of houses sanctioned	11,83,949	3,33,479	3,21,676	1,38,884	1,59,053	2,30,857
Total no, of houses completed	7,51,571	33,604	2,16,930	1,30,461	1,49,696	2,20,880

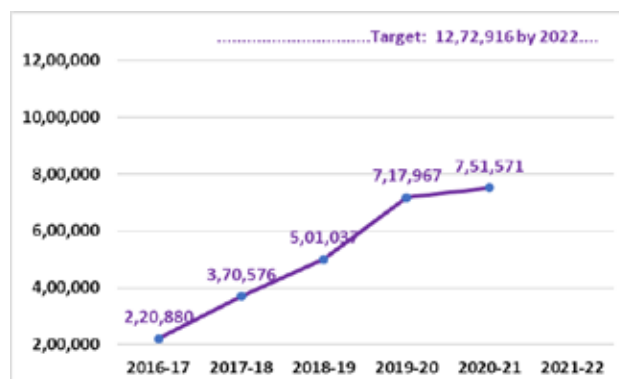
Source: [http://ruraldiksha.nic.in/RuralDashboard/PMAYG\\_New.aspx](http://ruraldiksha.nic.in/RuralDashboard/PMAYG_New.aspx)

**Figure 4.7: Overall progress of PMAY-G in Jharkhand as on 02.02.2021**



Source: [http://ruraldiksha.nic.in/RuralDashboard/PMAYG\\_New.aspx](http://ruraldiksha.nic.in/RuralDashboard/PMAYG_New.aspx)

**Figure 4.8: Year-wise cumulative number of complete houses (as on 02.02.2021)**



Source: [http://ruraldiksha.nic.in/RuralDashboard/PMAYG\\_New.aspx](http://ruraldiksha.nic.in/RuralDashboard/PMAYG_New.aspx)

### National Social Assistance Programme (NSAP)

The National Social Assistance Programme (NSAP) is a welfare programme being administered by the Ministry of Rural Development. This programme is being

implemented in rural areas as well as in urban areas. The NSAP now comprises the following five schemes:



**Indira Gandhi National Old Age Pension Scheme (IGNOAPS):** Under the scheme, BPL persons aged 60 years or above are entitled to a monthly pension of Rs. 200/- up to 79 years of age and Rs.500/- thereafter.

**Indira Gandhi National Widow Pension Scheme (IGNWPS):** BPL widows aged 40-59 years are entitled to a monthly pension of Rs. 200/-.

**Indira Gandhi National Disability Pension Scheme (IGNDPS):** BPL persons aged 18-59 years with severe and multiple disabilities are entitled to a monthly pension of Rs. 200/-.

**National Family Benefit Scheme (NFBS):** Under the scheme a BPL household is entitled to a lump sum amount of money on the death of the primary breadwinner aged between 18 and 64 years. The amount of assistance is Rs. 10,000/-.

**Annapura:** Under the scheme, 10 kg of food grains per month are provided free of cost to those senior citizens who, though eligible, have remained uncovered under NOAPS.

### Progress of NSAP in Jharkhand

At present there are more than 20.76 lakh beneficiaries registered under the above listed five schemes under the NSAP in Jharkhand (Table 4.5). Out of these 38.3% are males and 61.2% are females. About 95% of the total number of beneficiaries are Aadhar verified and about 92% get their benefits through the DBT scheme. About 63.3% beneficiaries under the NSAP are pensioners in Jharkhand and among them the proportions of the aged, widows and disabled pensioners are about 77.1%, 22.4% and 2% respectively.

**Table 4.5: Status of NSAP in Jharkhand as on 02.02.2021**

Male beneficiaries	7,95,757
Female beneficiaries	12,71,425
Transgender beneficiaries	61
Total no, of beneficiaries	20,76,437
verified Aadhar	19,71,293
Paid through DBT	19,05,255
Pensioners as on 02.02.2021	
Total no. of Pensioners	13,15,299
Old aged pensioners	10,13,839
Disabled pensioners	26,232
Widow pensioners	2,67,824

Source: <https://nsap.nic.in/statedashboard.do?method=showDashboardPage&stateCode=34>

### Shyama Prasad Mukherji Rurban Mission (SPMRM)

Shyama Prasad Mukherji Rurban Mission is developing 300 Rurban clusters identified in rural India covering 35 States and UTs with the objective of bridging rural-urban divide. This is a new mission and works through the following progress-parameters:

**The Integrated Cluster Action Plan (ICAP)** has been prepared and approved for every cluster which is the key document outlining the requirements of the cluster and the interventions needed to address these needs.

**Details Project Report (DPR)** is prepared under every ICAP which comprise the work-wise technical details, estimates and approvals for implementation.

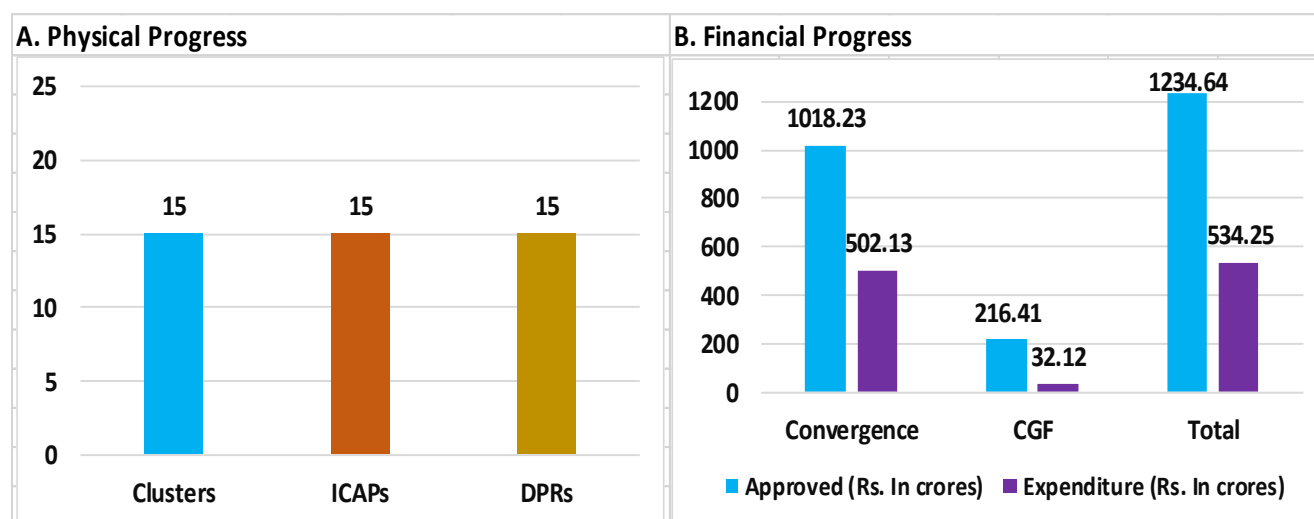
**Convergence :** At least 70% of the total investment is through the convergence of the various Central or state government-schemes.

**The Ministry of Rural Development provides the Critical Gap Funding (CGF)** which is up to 30% (max. Rs. 30 cr. For Non-Tribal and Rs. 15 cr. for Tribal Cluster). of the investment.

### Progress of SPMRM in Jharkhand

Figure 4.9 shows the progress of SPMRM in Jharkhand. 15 clusters with their ICAP and DPRs are ready in the state for the implementation in the FY 2020-21. More than Rs. 1.2 thousand crores have been approved for this and Rs. 534.25 crores have already been spent.

Figure 4.9: Progress of SPMRM in Jharkhand as on 02.02.2021



Source: [http://ruraldiksha.nic.in/RuralDashboard/PMAYG\\_New.aspx](http://ruraldiksha.nic.in/RuralDashboard/PMAYG_New.aspx)

### Jharkhand Integrated Adarsh Gram Yojana (JIGAY)

Four different schemes at the local village-level development i.e., Sansad Adarsh Gram Yojana (SAGY), PM Adarsh Gram yojana (PM-AGY), CM SMART Gram Panchayat Yojana (CM- SGY) and MLA Adarsh Gram Yojana (AGY) have been integrated under the Jharkhand Integrated Adarsh Gram Yojana (JIGAY) by the Department of Rural development, government of Jharkhand.

### Sansad Adarsh Gram Yojana (SAGY)

The major aims of the scheme are to trigger processes which lead to holistic development of the identified gram panchayats and to substantially improve the standard of living and quality of life of all sections of the population in the villages. As on 18.01.2021, the total number of Gram Panchayats identified under the SAGY in Jharkhand are 65 out of which 50 Gram Panchayats have prepared VDPs and uploaded them on the SAGY portal. The total number of activities planned under the Village Development Plans (VDPs) are 4,356. The total number of activities reported as completed are 2,223 and in-progress are 537 under the Village Development Plans.

### PM Adarsh Gram yojana (PMAGY)

The Prime Minister Adarsh Gram yojana (PMAGY) has been initiated with the objective to transform the villages with a scheduled caste-population exceeding 50 per cent into harmonious villages where social justice and equality prevail and all residents collectively work towards the peaceful and overall development of the

society. 100 villages have been selected in phase-I and Rs. 26 crores were released between 2014-15 to 2019-20 as central assistance to them. Under phase-II, 720 villages were eligible for selection out of which 512 new villages were selected in addition to 96 villages which were already selected in the previous phases. The central government has released Rs. 2791.70 crores for the FY 2018-19, 2019-20 and 2020-21 to develop these villages. 156 eligible villages still remain to be covered under phase-II.

### Adarsh Gram Yojana (AGY)

The Rural Development Department, Government of Jharkhand, has promulgated this programme in one village each, selected by the MLAs and 19 native villages of the renowned revolutionaries of Jharkhand with the aim to transform these villages into progressive communities with multiple options of livelihood and to help preserve their cultural and indigenous roots. Out of the 100 villages 81 villages were selected by 81 MLAs and 19 native villages of the renowned and acclaimed revolutionaries of Jharkhand have been selected as targets under the AGY programme.

### CM Smart Gram Panchayat yojana (CM SGY)

The vision of the CM Smart Gram Panchayat is to develop a village effectively adapted and practising e-governance with a single-window-solution-provision for all its citizens with greater transparency, having a vibrant Micro Economic Zone with a common Service Centre linked with the network of local entrepreneurial cadre for ensuring the transfer of appropriate technology in the areas of health, education, livelihood, agriculture,

micro-enterprise, safe drinking water and sanitation , clean alternative energy, environmental protection and climate-resilient community. Five Gram Panchayats have been selected through open competition under this programme.

## Jharkhand State Livelihood Promotional Society (JSLPS)

The Jharkhand State Livelihood Promotional Society has been formed under the aegis of the Rural Development Department to serve as a special purpose vehicle for the smooth implementation of poverty-reduction schemes (DAY-NRLM and others) in the state. The society is executing different programmes which have consistent and lasting impact on poverty-alleviation, women-empowerment, equity and ownerships in the livelihood-programmes of the state. The JSLPS have been privileged to witness women breaking the manacles of poverty and unshackling them and their families from deprivation and disadvantage.

The work of JSLPS has ignited many initiatives, anchoring the programmes so that there is inclusive growth and development in the villages. There are determined efforts to break the passivity that exists for addressing the key issues for the vulnerable sections of the community. The JSLPS has its judicious implementation of poverty-alleviation programmes which includes the gamut of interventions ranging from livelihood, financial inclusion, non-farm and off farm activities and skills-development under the ambit of Gramin Kaushal Yojana (DDU-GKY), social development, Mahila Kisan Shashaktikaran Programmes (MKSP) and others.

The society has its outreach in all the 24 districts and imprints in 263 blocks of the state under the ambit of intensive, resource block and home-grown model (or partnership) categories. Table 4.6 shows the coverage of JSLPS activities in the state. Till 31st October 2020, more than 2.53 lakh self-help groups which cover more than 31.79 lakh households from 26,776 villages have, been covered under JSLPS.

**Table 4.6: Coverage of JSLPS activities**

Activities	Cumulative Status as on 31st March 2020	Achievement of the Current FY 2020-2021 (31st October 2020)	Cumulative Achievement till 31st October 2020
No. of Blocks	263	-	263
No. of Panchayats	4360	8	4368
No. of villages	26412	364	26776
No. of SHGs	2,45,393	7822	2,53,215
No. of Households Mobilised in SHGs	30,65,956	113454	31,79,410
No. of Village Organisations	17,738	478	18,216
No. of Cluster Level Federations	728	125	853

*Source: Jharkhand State Livelihood Promotional Society*

## FINANCIAL INCLUSION

### Community Funds: Revolving Fund and Community Investment Fund (RF and CIF)

Financial inclusion is one of the elemental components of NRLM. It is envisaged that the poor if enabled to access multiple doses of affordable credit and other financial services will help their households coming out of the cusp of poverty. Community funds like

RF and CIF provided under NRLM is significant in helping to break the initial passivity, by catering to the consumption and production-needs of the SHG members. In the FY 2020-21 till 31st October 2020, about 1.06 lakh SHGs have received Rs. 159.42 crore under revolving funds and about 35.8 thousand SHGs have received Rs. 90.94 crores under community-investment-funds (Table 4.7).

**Table 4.7: Status of community funds (RF and CIF)**

Activities	Cumulative Status as on 31st March 2020	Achievement of Current FY 2020-2021(31st October 2020)	Cumulative Achievement till 31st October 2020
No. of SHGs which received RF	1,16,453	1,06,288	2,22,741
Amount of RF (Rs. in Crores)	174.66	159.42	334.09
No. of SHGs which received CIF	43,316	35808	79,124
Amount of CIF (Rs. in Crores)	233.68	90.94	324.62

Source: Jharkhand State Livelihood Promotional Society

### SHG Credit linkage

SHG Credit-linkage is fulfilling the aspirations of rural women towards attaining self-dignity and self-reliance. As on 31st Oct 2020 around 1,37,518 SHGs have been

linked with banks and Rs. 1824.51crores have been mobilized through banks and are being utilized for various livelihood-activities (Table 4.8).

**Table 4.8: Credit linkages to SHGs**

Activities	Cumulative Status as on 31st March 2020	Achievement of the Current FY 2020-2021(31st October 2020)	Cumulative Achievement till 31st October 2020
Total No. of SHGs Credit linked	1,16,177	21361	1,37,518
Amount of Credit linkage (Rs.in Crores)	1649.46	299.53	1824.51

Source: Jharkhand State Livelihood Promotional Society

### Bank Sakhis and Business Correspondent Model

JSLPS has initiated the Bank Sakhi model, where community institutions identify the SHG's members and place them in the bank-branches for helping SHGs in bank-related work. Similarly, business correspondents are deployed to provide doorstep banking services. Table 4.9 shows the total number of bank-sakhis and business

correspondents working under the JSLPS. In the FY 2020-21 up to 31st October 2020, more than eleven hundred new bank sakhis and BCs were appointed and thus more than twenty-one hundred bank sakhis and BCs are working in the state (Table 4.9).

**Table 4.9: Number of Bank Sakhis/Business Correspondents (as on 31.10.2020)**

Activities	Cumulative Status as on 31st March 2020	Achievement of the Current FY 2020-2021 (31st October 2020)	Cumulative Achievement till 31st October 2020
No. of BC Agents / Sakhies (including Digi Pay Agents)	1051	1106	2157

Source: Jharkhand State Livelihood Promotional Society

### LIVELIHOOD FARM

Sakhi Mandal members are adopting new techniques for farming and are also exploring the best practices with their own innovations. They are involved in income-generation activities like-livestock rearing, NTFP and

other off farm activities. The JSLPS is trying to create a conducive environment in order to provide at least two livelihood-options to each of rural households.

**System of Crop Intensification (SCI/SRI):**

During the FY 2019-20, about 6,88,977 households were catered to with various farm-based livelihood-activities, among which SRI and vegetable cultivation-activity were the prominent activities and in the FY 2020-21 (Till 31st October 2020) a total number of 15,66,618 households were covered under various farm-based livelihood-activities. Table 4.10 shows the crop-wise engagement of the number of households in farm-based livelihood-activities.

**Table 4.10: Achievements under system of crop intensification in livelihood farm of paddy, oilseeds, pulses and vegetables (as on 30.09.2020)**

Activities	Achievement as on 31st March 2020	Achievement of the Current FY 20-21 (30th Sep.2020)
Paddy	396693	853640
Maize	21412	87681
Pulses	47392	198744
Oil seeds	7032	21000
Millets	NIL	13371
Vegetables	216448	392182

Source: Jharkhand State Livelihood Promotional Society

**Goat based livelihood-intervention along with backyard poultry, duckery and piggery:**

The goat-rearing related livelihood-interventions are being institutionalized through community resource centres encapsulated as Aajeevika Pashu Sakhi. These 'pashu sakhis' are being trained and capacitated to support SHG members. During the FY 2019-20, a total of 2,16,641 households were engaged in the goat-based livelihood-intervention along with poultry, duckery and piggery. In the in the FY 2020-21 (till 31st October 2020) a total of 3,93,189 households were covered under goat-rearing, poultry, duckery, piggery and fisheries. Table 4.11 shows the number of households engaged in livestock-based livelihood in the state. The maximum number of households are engaged in goat-rearing followed by poultry, duckery, fisheries and piggery.

**Table 4.11: Number of households engaged in livestock related livelihood interventions**

Livestock	Achievement as on 31st March 20	Achievement of the Current FY 20-21
Goat	123541	210871
Poultry	75600	120255
Ducks	13000	40500
Pigs	4500	4500
Fisheries	NIL	17063

Source: Jharkhand State Livelihood Promotional Society

**Community Managed Sustainable Agriculture:**

Community Managed Sustainable Agriculture (CMSA) was taken-up through the trained Aajeevika Krishak Mitra (AKMs) in different blocks with a specific strategy. Under the ultra-poor strategy of CMSA the following activities are being carried out -

- The existing or new community livelihoods resource persons/AKM (@two in each village) were placed.
- Village organisation (VO) sub-committee on livelihood was formed and nurtured.
- Focus was on the extremely poor to bring them in the agricultural fold and provide them with a proven package of practices.

**Aajeevika Sansadhan Kendra (ASK):**

JSLPS' focuses on goat, backyard poultry and duckery based-livelihood intervention and emphasizes the establishment of a Resource Centre named as "Aajeevika Sansadhan Kendra" and its operationalisation in the blocks. The process for the establishment of 12 ASKs has been initiated. Additionally, these ASKs are developed as business entities as 'chick hardening centre' (for 25 day old chicks).

**Establishment of Retail-outlet:**

In Jharkhand, after initiating the process of organic cluster development, there are plans to promote the organic produce through 'Aajeevika Farm Fresh' also complemented with a mobile application which is already grounded in the name of 'Aajeevika Fresh'.

### MAHILA KISAN SASHAKTIKARAN PARIYOJANA (MKSP)

The primary objective of the MKSP is to empower women in agriculture by making systematic investments to enhance their participation and productivity, and also to create and sustain agriculture-based livelihood for rural women. By establishing efficient local resource-based agriculture, wherein women gain more control over the production resources and manage the support systems, the project seeks to enable them to gain better access to the inputs and services provided by the government and other agencies. Table 4.7 shows the number of farmers involved in the various activities under MKSP.

#### Tamarind Processing:

A total of 11,351 farmers are involved in the collectivisation of tamarind. Further tamarind-processing e.g., de-seeding, brick making etc. are done by 13 dedicated processing units.

#### Essential Oil Distillation Unit

There are 10 distillation units established in 07 blocks of Jharkhand, wherein 560 farmers are engaged in distillation units.

#### Lac Processing Unit

Under non-timber forest products (NTFP) scientific lac cultivation, 16 blocks of Jharkhand are covered in Ranchi, Latehar, Simdega, Latehar, Gumla, West Singhbhum and the Khunti districts where 62,332 farmers are involved in lac-cultivation as in October, 2020.

#### Resham

As in October 2020, a total of 15,740 farmers are involved in the production of Resham. Thus, a total of 8,585 new farmers have joined this in the FY 2020-21 (Table 4.12).

**Table 4.12: Number of farmers engaged in the various activities under MKSP**

Activities	Achievement as on 31st March 20	Achievement of the Current FY 20-21 30th Sept.20)
Lac	52332	62332
Tamarind	11351	14406
Tasar	7155	15740
Medicinal Plants	9639	11672

Source: Jharkhand State Livelihood Promotional Society

### Non-Farm activities

#### Start-up Village Entrepreneurship Programme (SVEP):

Under the SVEP, a total of 6,948 Micro Enterprises have been established till 31st October, 2020 and 1.2 lakh SHGs members have initiated or revived the micro enterprises after getting a loan from the SHGs. A total of 1,499 SVEP MEs were operational even during the Covid-19 lock-down period.

#### Training and Production Centre (TPC):

The TPC is established as a state-of-the-art centre with all modern machinery and equipment. It helps in the production of government school uniforms and bags for the Dakia scheme/DAY-NRLM and other departments.

#### Palash Brand:

It is an umbrella brand developed by JSLPS and supported by the Jharkhand state government for the promotion and selling of SHG products.

### SKILLS and JOBS

#### Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

DDU-GKY is part of the National Rural Livelihood Mission (NRLM), tasked with the dual objectives of adding diversity to the incomes of poor rural families and catering to the career-aspirations of rural youth. Table 4.13 shows the progress of DDU-GKY in Jharkhand. Since 2014 more than 43.5 thousand youths have been trained under this scheme and out of them more than 18 thousand youths have got placement as well.

**Table 4.13: Progress of DDU-GKY in Jharkhand**

Indicators	Achievements (2020-21)	Cumulative Achievement as on 20th October, 2020 (Since Inception)
No. of PIAs	7494 candidates	68
No. of training Centre		72
Training Centre Capacities		11,274
No. of Youths trained		43,578
No. of Youths Placed		18006(> 3 Months)

Source: Jharkhand State Livelihood Promotional Society

### Rural Self Employment Training Institutes (RSETI)

The RSETI are dedicated institutions designed to ensure necessary skill-training and skill upgradation of rural BPL youth to mitigate the problem of unemployment.

These are promoted and managed by banks with active cooperation from the state government. Table 4.14 shows the progress under RSETI in Jharkhand.

**Table 4.14: Progress under RSETI in Jharkhand**

Activities	Cumulative Achievement as on 31st March 2020	Achievement As on 31st October 2020	Cumulative Achievement
Training at RSETI	1,36,552	2,698 (15%)	1,39,250
Settlement	92,137 (68%)	1,197	93,334
Project One BC One GP	-	204 (Appeared for IIBF exam 208)	204

Source: Jharkhand State Livelihood Promotional Society

### UDAAN

It is a special project under DAY-NRLM, MoRD for the development of 23,779 primitive vulnerable tribal group (PVTG) households in a 3-year period. The broad engagements and achievements under this project so far are:

- A total of 1,562 PVTG SHGs have been formed and 18,122 PVTG families are in this fold (in the whole state – 43,000 households in 4,120 SHGs).
- GUTU GALANG KALYAN TRUST"- A bag stitching unit set up by the PVTG women at Littipara which produces 2,500 bags/day for use in packaging for the Dakiya scheme.
- Intensive Livelihood intervention with 12,600 families (Pulses-12,300, Millets-7500, BYP-1120, Lobiya-5500).
- Nutrition Garden promoted with 11,000 PVTG families.
- Drinking Water facility provided in 18 villages; convergence with the Department of Drinking Water and Sanitation.

### Jharkhand Horticulture Intensification by Micro Drip Irrigation Project (JHIMDI)

The JHIMDI is funded by Japanese ODA loan. Agriculture in Jharkhand is dominated by small holders and about 50% of the farmers have a land holding of less than 0.4 hectare. As the state does not possess any perennial river has undulating topography, irrigation schemes are limited to minor ones. The farmers rely on groundwater not only for domestic use, but also for agricultural production. Conducive climatic conditions and proximity to markets

have created a high potential for the promotion of a wide range of horticultural crops in Jharkhand. In this context, promotion of MDI would contribute to the intensification of horticulture in Jharkhand. The farmers would also gain from an increase in the efficiency of water-use, improved yields, precision in the application of fertilizers and plant nutrients as well as savings in labour and energy.

The JHIMDI aims to provide strong and sustainable agriculture-based livelihood through drip-irrigation. It will cover 9 districts and 30 blocks of Jharkhand. Drip irrigation is a scientific way of farming in which the crop is irrigated using very little water, which is useful in low-water-level areas. The farmers to be supported under the project are members of Self-Help Groups (SHG) formed by the Jharkhand State Livelihood Promotion Society (JSLPS) and own or lease small farmlands. The project adopts a holistic approach wherein farmers are provided with the MDI system, poly nursery houses and vermicompost units along with intensive training on horticulture and marketing. At present, a total of 12,417 farmers have been registered and 5,021 Micro-Drip Irrigation facilities installed in the state under JHIMDI.

#### Other activities:

#### Ajeevika Canteen

A total of 90 canteens are being run by the community institutions and many of them are in the government-premises.

#### Other Initiatives:

#### Community Based Monitoring System

In order to ensure the quality of programmes/ activities,

community-based monitoring is being facilitated under the NRLM in all the 24 districts.

### Community Journalist

The success story of the SHGs and its federation is being covered by the local volunteer (community-based journalist from SHG members) and is published in the local newspapers and these initiatives are helping communities to replicate the model in their localities.

### Jharkhand's Opportunities for Harnessing Rural Growth (JOHAR)

The development-objective of the Jharkhand's Opportunities for Harnessing Rural Growth (JOHAR)

Project, funded by the World Bank, is to enhance and diversify household-income in select farm and non-farm sectors for targeted beneficiaries in the project areas of Jharkhand. Over 200,000 rural households and some 3,500 farmer producer groups are expected to benefit from the project with women as the principal actors in the production, processing and marketing. Women SHG members, including those from scheduled castes and tribes, and small holders and landless households from 17 districts and 68 blocks of rural Jharkhand are expected to benefit. Table 4.15 summarises the major achievements of JOHAR in the FY 2019-20 and 2020-21 as well as the cumulative achievements till October 2020.

**Table 4.15: Major achievements under JOHAR**

Particulars	As in March 2018	Achievements of the FY 2019-20	Achievements of the FY 2020-21 (as in October 2020)	Cumulative Achievement (as in October 2020)
Total Coverages				
No. of districts entered	13	4	0	17
No. of blocks entered	27	16	0	65
No. of villages covered	596	902	485	3733
No. of PGs formed	596	854	638	3,838
No. of HH covered under PGs	30329	46,425	48,707	1,94,707
No. of SC/ST HH covered	19000	27,955	28,233	1,20,233
No. of PGs with saving accounts	229	1,283	699	3,689
No. of PGs which received PG start – up grant	0	1,081	1,142	3,392
No. of social Cadres developed (AKM, APS, AVM, AMMetc.)	950	5,673	8,299	19,645
Achievement under HVA (High Value Agriculture)				
No. of HH/ Farmers covered under high value agriculture (HVA)	12821	28,832	34,836	1,35,836
No. of HHs which received HVA input grant	0	45,765	6,087	80,683
No. of soil-testing laboratories established	0	60	0	60



Particulars	As in March 2018	Achievements of the FY 2019-20		Achievements of the FY 2020-21 (as in October 2020)	Cumulative Achievement (as in October 2020)
No. of modern nurseries established at the PG Level	0	104		113	227
Achievement under Livestock					
No. of HHs covered under Livestock (Piggery / Goatery / BYP)	5087	5,807		1,333	28,264
No. of HHs which received Grant for shed-construction	0	2,190		2,651	8,892
No. of sheds completed	0	2,371		1,250	4,853
Achievement under Fisheries					
No. of HHs covered under Fishery	1144	5,030		4,895	16,797
No. of HHs which received input grant	0	3,841		2,797	8,198
Achievement under NTFP					
No. of HHs under NTFP (Lac, lemon grass, Moringa, Tamarind etc.)	794	8,020		12,328	30,874
Irrigation Progress					
No. of irrigation DPRs Prepared	75	397		173	1,196
No. of irrigation schemes installed	0	107		131	238
No. of PGs which received grants for 0.5/ 1 HP solar movable pumps	0	50		24	74
Producer groups / Companies					
No. of FPOs formed and made functional with system in place	0	10		0	19
Total volume of input/output business done by PG (in lakhs)	0	791		550	1341

Source: JSLPS

## Section-B: Local Self- Government

### Panchayati Raj

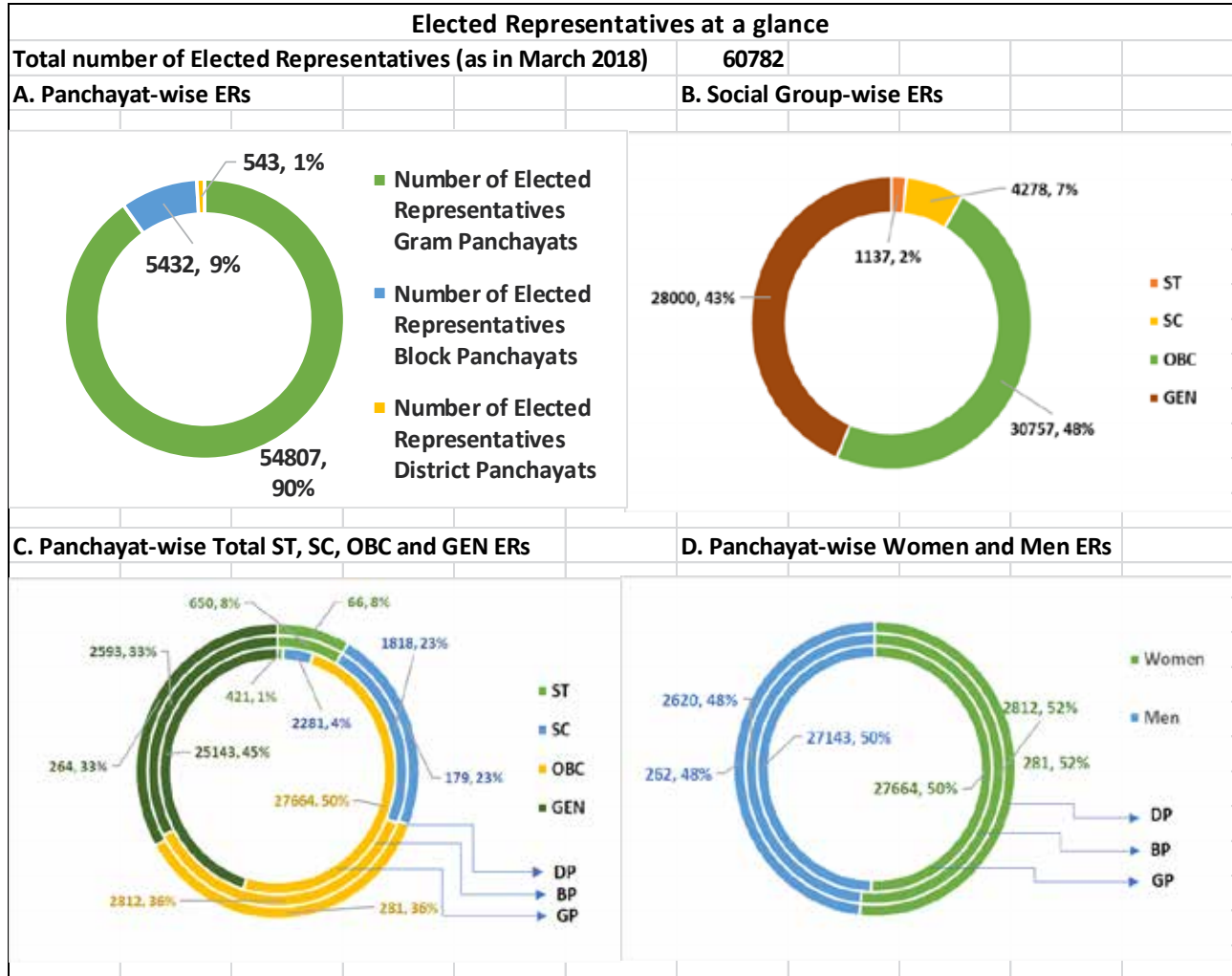
Panchayati Raj institutions are the backbone of rural development which inculcate the sense of care for rural development and rural management in order to create sustainable development. The various types of programmes for rural developments such as programmes related to basic primary education, health centres, cottage

industries, agricultural development, transportation and other schemes of village development are run under the Panchayati Raj system/village development authority. Panchayati Raj institutions also work for the protection of the environment.

The Panchayati Raj system is now well rooted in Jharkhand and the Panchayati Raj Institutions (PRIs) have made significant progress since the implementation of the Jharkhand Panchayat Raj Act, 2001. PRIs are

empowering Panchayats and representatives to realize their rights, entitlements and duties through the effective delivery of services, helping to plan their own holistic development.

**Figure 4.10: Number of Elected Representatives**



Source: Basic Statistics of the Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

**Basic statistics of Panchayati Raj institutions**

At present, under the PRI, there are 24 district panchayats, 264 sub-district panchayats, 263 intermediate panchayats, 4,364 village panchayats, 51 urban bodies and one cantonment board (Ramgarh) in Jharkhand (Table 4.16). The total number of elected representatives heading these panchayats are 60,782 as in March 2018 out of which 30,757 (50.6%) are women. Jharkhand has reserved 50% of the panchayat seats for women. Figure 4.10 shows the panchayat-wise as well as the social-group-wise composition of elected representatives in the state. At present the number of elected representatives at the gram panchayat level is 54,807 which constitutes

90% of all the elected representatives. Similarly, there are 5,432 (9%) and 543 (1%) elected representatives at the block panchayat and district panchayat levels respectively. Among all the elected representatives, 48% belong to the OBC category whereas, 43% are from the general category. The proportions of the ST and the SC categories are 2% and 7% respectively. At the gram panchayat level, the proportions of the STs and SCs among all the elected representatives stand at 1% and 4% respectively. At the block and the district level panchayats, the proportions of the ST and the SC are 8% and 23% respectively.

**Table 4.16: Number of Administrative Units in Jharkhand**

No. of Districts	24
No. of District Panchayats	24
No. of sub-districts	264
No. of Blocks	264
No. of Intermediate Panchayats	263
No. of Villages	32712
No. of Village Panchayats	4364
No. of Urban Bodies	51
No. of Cantonment Boards	1

Source: <http://lgdirectory.gov.in>, Report Generated on 18/01/2021 10:59:39 AM and Data is updated & managed by the State Departments Local Government Directory

**Central Finance Commission (CFC) Grants**

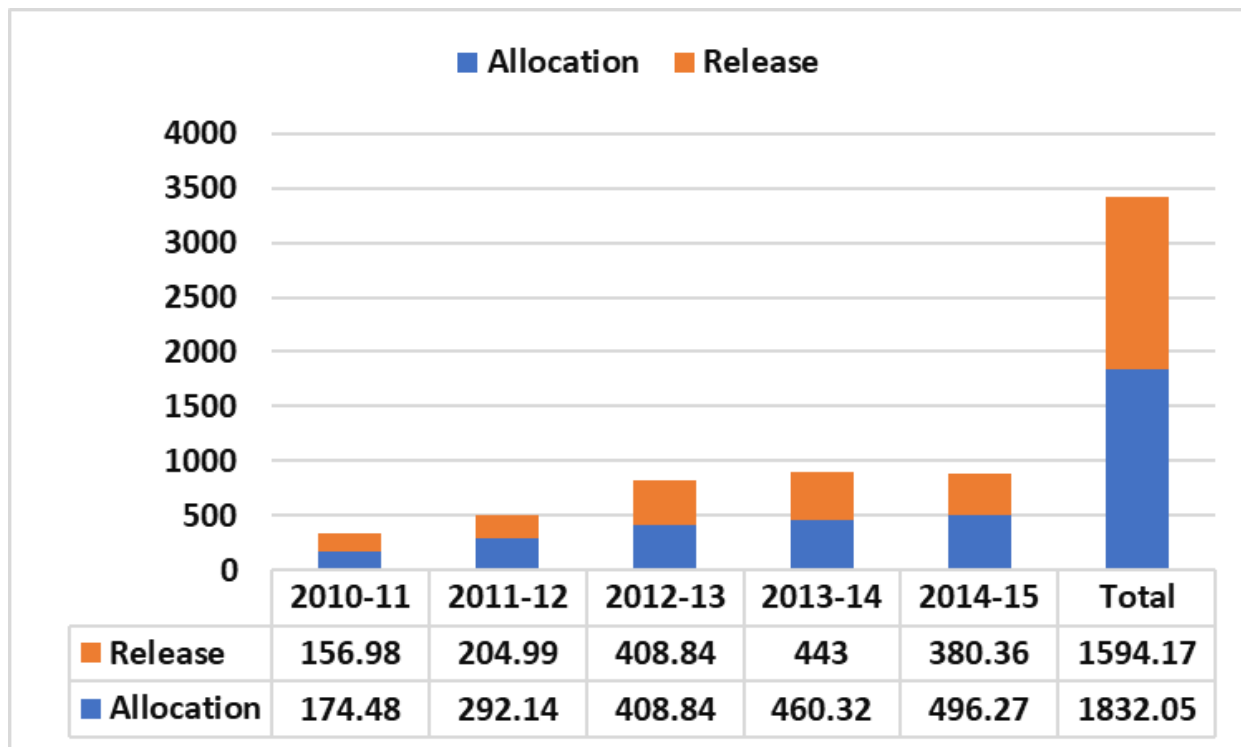
Article 280(3) (bb) of the Constitution inserted vide the 73rd Amendment Act states that “the measures needed to augment the Consolidated Fund of a State

to supplement the resources of the panchayats in the state on the basis of the recommendations made by the Finance Commission of the state”. Accordingly, the Union Finance Commissions are required to make recommendations to augment the Consolidated Fund of a state to supplement the resources of the Panchayats in the State on the basis of the recommendations made by the Finance Commission of the State. Till date three state Finance Commissions (SFCs) have been constituted in the state and the last SFC was constituted on 27.01.2015. However, Jharkhand has used the FFC formula for the distribution of Basic Grant under the Fourteenth Finance Commission (FFC) Award. The status of the actual allocation and release of grants to rural local bodies under the 13th (2010-11 to 2014-15) and the 14th (2015-16 to 2019-20) Finance Commissions is given in Figure 4.2, 4.3 and in Table 4.2.

**Thirteenth Finance Commission Grants**

Under the thirteenth finance commission (TFC) grants Rs. 1,594.17 crores were released against a total allotment of Rs. 1,832.05 crores to Jharkhand for strengthening the Panchayat Raj systems. Figure 4.11 shows an annual break-up of allocation and release of grants under the TFC to Jharkhand.

**Figure 4.11: Year-wise allocation and release of TFC grants to RLBs (Rs. in crore)**



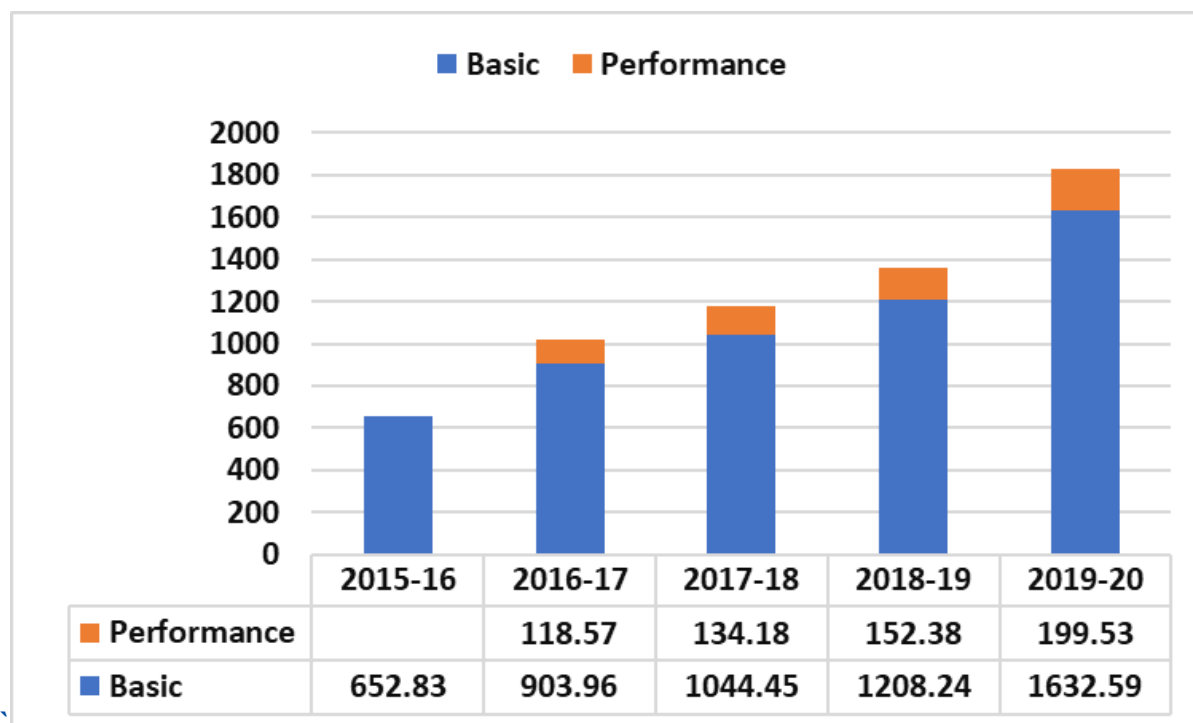
Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

### Fourteenth Finance Commission (FFC) Grants

As per the formula used by the FFC to distribute grants to states, Jharkhand's share was fixed at 3.02%. Accordingly, Rs. 6,046.74 crores were allotted as total grants to Jharkhand under the FFC grants, out of which Rs. 5,442.07 crores were under basic grants and Rs. 604.67 crores were under performance grants. However, the total release remained at Rs. 5,560.64 crores only.

Rs. 5,442.07 crores were released under basic grants and Rs. 118.57 crores under performance grants. Figure 4.12 shows the year-wise composition of the allotment of grants whereas, Table 4.17 gives the year-wise allotment and release of basic as well as performance grants to the state.

**Figure 4.12: Fourteenth Finance Commission Grants to RLBs (Rs. in crores)**



Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

**Table 4.17: Year-wise allocation and releases under FFC (2015-16 to 2019-20)**

(Rs. in crore)

Year	Basic		Performance		Total	
	Allocation	Release	Allocation	Release	Allocation	Release
2015-16	652.83	652.83			652.83	652.83
2016-17	903.96	903.96	118.57	118.57	1022.53	1022.53
2017-18	1044.45	1044.45	134.18	0	1178.63	1044.45
2018-19	1208.24	1208.24	152.38	0	1360.62	1208.24
2019-20	1632.59	1632.59	199.53	0	1832.12	1632.59
Total	5442.07	3205.36	604.67	118.57	6046.74	3323.93
% share in all India	3.02		3.02		3.02	

Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

### Capacity building and training

Since the implementation of the Jharkhand Panchayat Raj Act, 2001, several schemes and programmes have been implemented in the state for the strengthening of the Panchayati Raj Institutions (PRIs), primarily by way of capacity building and training to the elected representatives of PRIs and other stakeholders. The Rajiv Gandhi Panchayat Sashaktikaran Abhiyaan (RGPSA) was implemented from the year 2012-13 up to 2015-16. During 2016-17 and 2017-18, the Capacity Building-Panchayat Sashaktikaran Abhiyan (CB-PSA) for Capacity Building & Training (CB&T) with a focus on Gram Panchayat Development Plan (GPDP) was implemented.

### Rashtriya Gram Swaraj Abhiyan (RGSA)

The Government of India has launched the restructured Centrally Sponsored Scheme of Rashtriya Gram Swaraj Abhiyan (RGSA) for implementation from 01.04.2018 to 31.03.2022 with the primary aim of strengthening Panchayati Raj Institutions (PRIs) for achieving Sustainable Development Goals (SDGs) with the main thrust on convergence with Mission Antyodaya and an emphasis on strengthening PRIs in the 117 aspirational districts. The scheme has programmatic focus for phased saturation mode on ensuring basic orientation training for the elected representatives of the Panchayats within six months of their election and refresher trainings within 2 years. The RGSA will put a thrust on the SHG-PRI convergence to ensure effective community-mobilisation. Table 4.18 shows year-wise detail of the total funds released and the total number of training programmes sanctioned under RGPSA/CB-PSA/RGCSA to Jharkhand. Between 2014-15 to 2018-19, a total of Rs. 98.24 crores were released to Jharkhand under these three schemes. A total of 2,61,084 sessions of training to the elected representatives of PRIs and other stakeholders were also sanctioned under these schemes during the same period.

**Table 4.18: Total funds released and total number of trainings sanctioned under RGPSA/ CB-PSA/RGCSA (year-wise)**

Year	Funds released (in Rs. Crores)	Training programmes sanctioned
2014-15	16.2	
2015-16	9.49	26938
2016-17	20.9	86499

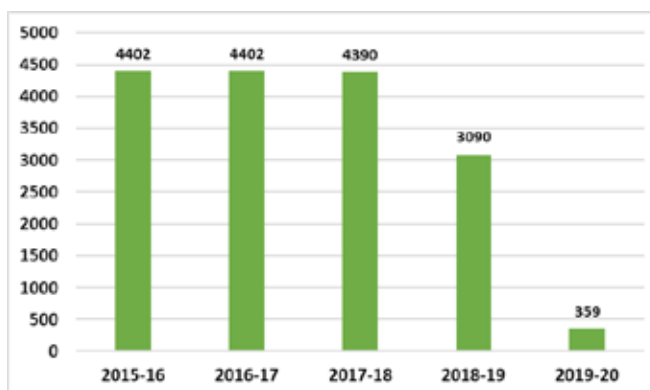
Year	Funds released (in Rs. Crores)	Training programmes sanctioned
2017-18	47.16	134924
2018-19	4.49	12723
Total	98.24	261084

Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

### Gram Panchayat Development Plans (GPDPs)

The Gram Panchayat Development Plans are an opportunity for the community to be engaged in setting local development-agenda and finding local solutions to developmental issues. The Ministry of Panchayati Raj, Government of India has supported the states to develop state-specific guidelines for the Gram Panchayat Development-plans which converge all the resources over which the Panchayats have command including FFC funds, MGNREGS funds, Swachh Bharat funds, etc. Figure 4.13 shows the number of gram panchayat-plans prepared in Jharkhand between 2014-15 to 2019-20.

**Figure 4.13: Year-wise number of gram panchayat plans prepared in Jharkhand**



Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

### People’s Plan Campaign for Gram Panchayat Development Plan- Sabki Yojana Sabka Vikas

Gram Panchayats have been mandated for the preparation of Gram Panchayat Development Plan (GPDP) for economic development and social justice utilizing the resources available to them. Panchayats have a significant role to play in the effective and efficient implementation of flagship schemes on subjects of national importance for the transformation of rural India. The People's Plan Campaign was run from 2nd October to 31st December, 2018 for preparing GPDP for 2019-20. The campaign

initiated under the "Sabki Yojana Sabka Vikas" is an intensive and structured exercise for planning at gram sabha through convergence between the Panchayati Raj Institutions (PRIs) and the concerned Line departments of the state.

Under the People's Plan Campaign for preparing GPDP for 2019-20, the total number of gram sabhas held was 4349 (99.20%). The total number of GPDP approved as per facilitator's feedback was 2519 (57.50%). Table 4.19 shows the status of GPDP for 2019-20 under PPC for Jharkhand.

**Table 4.19: Status of Gram Panchayat Development Plan (GPDP) for 2019-20**

Gram Sabha (GS) Data	GS Scheduled	GS Scheduled %	GS Held	GS Held %
		4349	99.20%	4349
GPDP Approved as per facilitator's feedback	No.			%
	2519			57.50%
GPD Pup-loaded on Plan Plus	No.			%
	0			0.00%
GPDP under process in Plan Plus	No.			%
	2574			58.70%
Total GPDP (Uploaded +Under process) on Plan Plus	No.			%
	2574			58.70%

Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

### PESA in Jharkhand (Governance in Fifth Schedule Areas)

“The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996” in short, PESA Act mainly aims to protect the tribal population from exploitation by making gram sabhas and gram panchayat centres of self-governance and has laid special thrust on empowering

the gram sabha which has not been conferred by any other Act in any state. Out of 24 districts, 16 districts are fully/partially covered under the PESA in Jharkhand. Table 4.20 gives details of PESA areas in Jharkhand.

**Table 4.20: Details of notified FSA/PESA areas in Jharkhand**

Villages	Panchayats	Blocks	Districts	
			Fully covered	Partially covered
16022	2074	131	13	3
			Ranchi, Khunti, Lohardaga, Gumla, Simdega, Latehar, West Singhbhum, EastSinghbhum, Saraikela Kharsawan, Dumka, Jamtara, Sahebganj and Pakur	Palamu, Garhwa, Godda

Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.

### Compliance Report of Jharkhand under PESA (as on December, 2017)

Jharkhand has made good progress in implementing PESA in the notified areas. Table 4.21 shows the status of compliance of the state Panchayati Raj Acts with section 4 of PESA-1996. Except for the restricted sale

of intoxicants, owning minor forest-product (MFP), preventing land alienation and control over money lending, all other provisions have been fulfilled.

**Table 4.21: Compliance of State Panchayati Raj Acts with Section 4 of the PESA-1996**

Provisions under clauses of Section 4 of PESA	Status of compliance
Customary mode of conflict resolution by the Gram Sabha	Yes
Selection of programme beneficiaries by the Gram Sabha	Yes
GP to obtain UC from the Gram Sabha	Yes
Nomination by the state government of persons of the STs not represented in the intermediate and district PRIs	Yes
Consultation with the Gram Sabha or PRI before land acquisition and resettlement	Yes
Planning & management of water bodies by the Gram Sabha or PRI	Yes
Recommendation by the Gram Sabha or PRI before the grant of prospecting license or mining lease	Yes
Recommendations by the Gram Sabha or PRI before the exploitation of minor minerals	Yes
Sub-clauses of Section- 4(m)	Status of compliance
Restrictions in the sale of intoxicants	No
Own MFP	No
Prevention of land alienation	No
Management of village markets	Yes
Control over money lending	No
Control over social sector institutions & functionaries	Yes

*Source: Basic Statistics of Panchayati Raj Institutions, Ministry of Panchayati Raj, GOI, 2019.*

**Box-4.2: Best practices in PRIs- planning at the Tola (habitation) level in Jharkhand**

Under the Yojana Banao Abhiyan, a three-day planning exercise, facilitated by the Panchayat Planning Team (PPT) was organized for every 100 households by the GP, roughly coinciding with its Wards. It culminated in “Tola Sabhas” (community meetings at the hamlet level) for prioritizing and approving the selected schemes. Institutionalization of the Tola Sabha followed by Gram Sabha will strengthen the implementation of PESA in Jharkhand.

(<https://www.pesadarpan.gov.in/web/guest/best-practices>)

**Incentivisation of Panchayats : Awards**

The incentivisation (awards) encourages Panchayat representatives who make special efforts to create models for the Panchayats and Gram Sabhas to follow and draws public attention to the performance of Panchayats, which

encourages all Panchayats to improve their performance. The awards are given on the National Panchayati Raj Day (NPRD) celebrated on 24th April every year.

**Table 4.22 National Panchayat Awards 2020 (Appraisal year 2018-2019) have been awarded under the following categories**

Sl. No.	Award Category	Number of Awards
1.	Deen Dayal Upadhyay Panchayat Sashaktikaran Puraskar (DDUPSP) is given to the best performing Panchayats (Districts, Intermediate and Gram Panchayats) across the states/UTs in recognition of the good work that is done by the PRIs at each level for improving the delivery of services and public goods. Nine thematic categories for GPs are Sanitation, Civic Services (Drinking Water, Street Light, infrastructure), Natural Resource Management, Marginalized sections (Women, SC/ST, Disabled, Senior Citizens), Social Sector performance, Disaster Management, Community Based Organizations/Individuals taking voluntary actions to support GPs, Innovation in Revenue Generation and e-Governance.	As per list (One third of the total awards proposed in thematic category).
2.	Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Puraskar (NDRGGSP) is given to Gram Panchayats/Village Councils for their outstanding contribution to the socio-economic development by involving Gram Sabhas.	One per State/UT
3.	Gram Panchayat Development Plan Award(GPDPA) is given to Gram Panchayat/ Village Council which has developed its GPDP according to the State/UT specific guidelines prepared in line with the model guidelines issued by MoPR.	One per State/UT
4.	Child-Friendly Gram Panchayat Award (CFGPA) is given to the best performing Gram Panchayat/Village Council for adopting child-friendly practices.	One per State/UT
5.	e-Panchayat Puraskar is given to the best performing State/UTs for promoting e-enablement of PRIs for bringing in efficiency, transparency and accountability in their functioning.	One to State/UT

**National Panchayat Awards- 2020 to Jharkhand (appraisal year 2018-19)**

Various tiers of the panchayats of Jharkhand have been awarded for their exemplary performances on National Panchayat Awards Day- 2020. Table 4.22 shows the details of the various tiers of the panchayats which received awards for the appraisal year 2018-19.

**Table 4.23: National Panchayat Awards- 2020 to Jharkhand (appraisal year 2018-19)**

Deen Dayal Upadhyay Panchayat Sashaktikaran Puraskar- 2020, Jharkhand, 1+2+3=6				
Tiers of Panchayat	Names of Panchayats with hierarchy			Category of Award (General/ Thematic)
	District Panchayats	Intermediate/ Block Panchayats	Gram Panchayats/ Village Councils	
Districts	Bokaro (LGD Code 281)			General
Intermediate/ Blocks	Bokaro	Jaridih (LGD Code: 3432)		General
	Ranchi	Namkum (LGD Code: 3592)		General



Gram Panchayats	Giridih	Gandey	Dokidih (LGD Code: 112855)	General
	Giridih	Birni	Kapilo (LGD Code: 112726)	General
	Dhanbad	Dhanbad	Bardhubhi (LGD Code: 111804)	General
<b>Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Puraskar- 2020</b>				
District Panchayats	Intermediate/ Block Panchayats		Gram Panchayats/ Village Councils	
Giridih	Birni		Kapilo (LGD Code:112726)	
<b>Gram Panchayat Development Plan Award- 2020</b>				
Ramgarh	Dulmi		Honhe (LGD Code: 113707)	
<b>Child-friendly Gram Panchayat Award- 2020</b>				
Bokaro	Peterwar		Bundu (LGD Code:111356)	

Source: <https://www.panchayat.gov.in/en/panchayat-award>

## New Initiatives to strengthen PRIs

### Spatial Planning

The Ministry of Panchayati Raj (MoPR) has taken up the initiative for Gram Panchayat Spatial Development Planning on pilot basis for 2 Gram Panchayats (GPs) per Institute, in collaboration with 16 architecture/engineering institutes of national repute, including IITs and NITs, spread across 13 States i.e., Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal. The 1st meeting on Spatial Planning was held on 1st July, 2020 under the chairmanship of the Secretary, MoPR, with active participation of the representatives of the above mentioned institutes and state governments through video conferencing. A total of 32 GPs have been selected for this pilot-study through a consultation process with the respective Institute and the Panchayati Raj Department of the State government. The selected GPs will act as beacon Panchayats for the rest of the GPs located in the peri-urban and on State and national highways to adopt systematic planning. MoPR and the respective state governments are the main stakeholders as policy advisers and provide a platform for academic institutions.

The Birla Institute of Technology (BIT), Mesra, Ranchi, has been selected for spatial planning in Jharkhand and the first planning will be done for the Neori gram panchayat, Kandra.

### Conclusion

Sustainable rural development is a vast task but a continuous assessment of the existing rural development schemes and programmes helps in developing new ways and means to accomplish this. The progress of MNREGA is quite encouraging but still a very small proportion of households are reaching the 100 days' mark. Schemes like PMGSY and PMAY-G are also progressing well in the state and the construction of more than 25.5 thousand kms. of rural roads since the launch of the PMGSY in 2000 is a very good achievement. Although, PRIs are now well rooted in Jharkhand and the Panchayati raj institutions (PRIs) have made significant progress since the implementation of the Jharkhand Panchayat Raj Act, 2001, but still the proportion of ST/SCs among elected representatives at the Gram Panchayat level is very low, given their proportionate share in the state-population.

# Chapter 5

## Urban Development





Keeping in mind the rapid rate of urbanization in the state, various central/state government-run schemes and programmes of urban development are helping in countering the diverse challenges emerging in urban areas and making the towns/cities a better place (as always thought of) in terms of liveability. It is a proven fact that towns/cities are the centres of economic growth and job creation. These centres grow and expand when more and more people move to urban agglomerations. But, since most of our towns/cities have grown naturally and in an unplanned manner, they are not fully equipped to deliver basic services like housing, water and sanitation to the growing number of residents. Hence, despite the continuous efforts to develop them, these towns/cities are still the centres of high-income inequality and poor quality of life.

The overall level of urbanization in the state of Jharkhand is 24.05 percent according to the census of India 2011 and As per the recently published NSS report on Drinking Water, Sanitation, Hygiene and Housing Conditions in India (Report No. 584, survey conducted between July to Dec 2018), only 27.3% of the households in Jharkhand have access to drinking water through piped water into their respective dwelling units and among all the urban households having access to drinking water about 46.15% of the households have an access to a source of drinking water which is used exclusively by the households, about 54.9% of the urban households have their exclusive bathrooms, 70.9% of the households have access to their exclusive latrine, 67.8% of the households use LPG as fuel for cooking, 21.8% of the households have underground drainage system, and in terms of the types of the structure of the houses about 93.9% of the households have pucca house.

The progress of DAY-NULM is quite well in the state. Till December 2020 in the FY 2020-21 about 1,044 new SHGs with 10,440 members have been formed and 208 SHG have got revolving fund. About 1,866 candidates are undergoing training out of which the number of the ST candidates are 445, the SC candidates are 172 and the rest 1,249 candidates belong to other population category.

Under PMAY-U, Jharkhand has been able to complete 67,899 houses as on 8th February, 2021 and under SBM-U, more than 2.18 lakhs individual households' latrine have been constructed in the state since the launch of the scheme. Similarly, Under PM-SVANidhi, the total number of beneficiaries targeted for Jharkhand is 75,000 and as on 21st February 2021 and about 39,391

applications have been received for loans under this scheme.

The present chapter discusses the status of urban development in view of the components of urban development like housing, water supply, urban mobility, sanitation, etc., via accounting the achievements of the programmes aimed at improving the liveability of towns/cities in the state. The chapter has been organised into sections- A and B. Section-A makes an inquiry into the current state of urban development in the state whereas, section-B gives an account of the recent achievements of various schemes of urban development running in the state.

### **Section-A: Current status of urban development**

Status of drinking water, sanitation, hygiene and housing in the households living in the urban areas of Jharkhand

The overall level of urbanization in the state of Jharkhand is 24.05 percent according to the census of India 2011 which, as compared to the national average of 31.14 percent, remains below the level of urbanization of the country. The recently published NSS report on Drinking Water, Sanitation, Hygiene and Housing Conditions in India (Report No. 584, survey conducted between July to Dec 2018) has traced the progress in access to basic amenities in the country.

#### **Access to drinking water**

Access to safe and continuous supply of drinking water is basic requirement for all the households. However, the households living in the urban centres are supposed to have better sources of drinking water. Figure-5.1 shows the percentage distribution of households by principal source of drinking water in India and Jharkhand. 27.3% of the households in Jharkhand have access to drinking water through piped water into their respective dwelling units and this is less than the national average (40.9%). The second principal source of water for urban households in Jharkhand is tube well hand pumps (21.7%) followed by hand pump (15.3%), public tap/standpipe (13.9%) at the third and fourth place respectively.

Among all the urban households having access to drinking water in Jharkhand about 46.15% of the households have an access to a source of drinking water which is used exclusively by the households. Similarly, 23.6% of the households use a source of water which is for the common use by the households in the building and 22.6% of the households use unrestricted public source of drinking water.

In terms of distance to the principal source of drinking water, 52.1% of the households have their source within their dwelling units in Jharkhand. 21.8% of the households have their source within their premises but

outside their dwelling units. 2.4% of the households have to travel 0.5 to 1.0 km outside their premises to access drinking water whereas, 0.9% of the households have to travel more than 1.5 km outside their premises to access drinking water in the state.

**Figure 5.1: Percentage distribution of households by principal source of drinking water (urban)**

Principal sources of drinking water	Jharkhand	India
Bottled Water	3.9	12.2
Piped water into dwelling	27.3	40.9
Piped water to yard/plot	7	16
Piped water from neighbour	1	1
Public tap/standpipe	13.9	7.1
Tube well hand pump	21.7	10.4
Hand pump	15.3	6.7
Well (protected)	3.9	1.7
Well (unprotected)	6	2.4
Other sources		1.6
<b>Access to the principal source of drinking water (in terms of use/ownership)</b>		
Exclusive use of the household	46.1	57.5
Common use of households in the building	23.6	16.3
Neighbour's source	2.5	1.7
Public source restricted to particular community	0.9	0.5
Public source unrestricted	22.6	10.3
Private source restricted to particular community	0.1	0.1
Private source unrestricted		0.6
Others	4.2	12.9
<b>Distance to the principal source of drinking Water</b>		
Within dwelling	52.1	56.1
Outside dwelling but within premises	21.8	24.6
Less than 0.2 Km (outside of premises)	16.3	13.8
0.2-0.5 Km (outside of premises)	5.7	3.2
0.5-1.0 Km (outside of premises)	2.4	1.2
1.0-1.5km (outside of premises)	0.8	0.5
More than 1.5 Km (outside of premises)	0.9	0.6

Source: NSS Report No. 584(July to Dec 2018): Drinking Water, Sanitation, Hygiene and Housing Conditions in India

**Status of sanitation and hygiene**

Figure-5.2 shows the status of various indicators used to evaluate the conditions of sanitation and hygiene for Jharkhand and India. Only 54.9% of the households have their exclusive bathrooms in Jharkhand whereas, this figure is 75% for the India.8.8% of the households

in India and 22.4% of the households in Jharkhand have no access to bathroom. 70.9% of the households have access to their exclusive latrine in Jharkhand whereas, 19.6% of the households have access to common latrine in the building. About 8.1% of the households living in the urban areas have no access to latrine in Jharkhand.

About 67.8% of the households in the urban areas of Jharkhand are using LPG as fuel for cooking. 4.2% of the households use firewood, chips and crop residue, 0.7% of the households use dung cake and 21.3% of the households use some other means as fuel for cooking. At the national level 86.6% of the households living in the urban areas use LPG for cooking.

Similarly, about 21.8% of the households have underground drainage system in Jharkhand whereas, at the national level this figure is 53.5%. About 16.9% of the households have a drainage system which is pucca

and covered and 36.4% of the households use a drainage system which is pucca but open in Jharkhand. 12.5% of the urban households in Jharkhand and 8% of the urban households in India do not have a drainage system.

Garbage disposal is very crucial in improving sanitation as well as hygiene conditions in the cities. Most of the households (34.7%) in the urban areas of Jharkhand use a common place other than community dumping spot for garbage disposal whereas, 48.6% of the households at the national level use community dumping spot for the disposal of garbage.

**Figure 5.2: Status of sanitation and hygiene (urban)**

<b>Access to bathroom</b>	<b>Jharkhand</b>	<b>India</b>
Exclusive use of household	54.9	75
Common use of households in the building	22.2	15.9
Public /community use without payment		0.2
Public /community use with payment		
Others	0.5	0.2
No bathroom	22.4	8.8
<b>Access to latrine</b>		
Exclusive use of household	70.9	77.6
Common use of households in the building	19.6	15.6
Public /community use without payment	0.2	1.5
Public /community use with payment	0.6	1.2
Others	0.5	0.4
No latrine	8.1	3.8
<b>Type of fuel used for cooking</b>		
Firewood, chips & crop residue	4.2	5.6
LPG	67.8	86.6
Dung cake	0.7	0.5
Others	21.3	3.2
No cooking arrangement	5.9	4.1
<b>Drainage system of the household</b>		
Underground	21.8	53.5
Covered pucca	16.9	16.2
Open pucca	36.4	17.9
Open katcha	12.5	4.4
No drainage	12.5	8
<b>Household's garbage disposed to</b>		
Bio-gas plant or manure pit	1	1.7
Household's individual dum dum spot(s)	15.1	14
Community dumping spot	28.2	48.6
Common place other than community dumping spot	34.7	21.7
Others	18.6	10.9
Not known	2.5	3.2

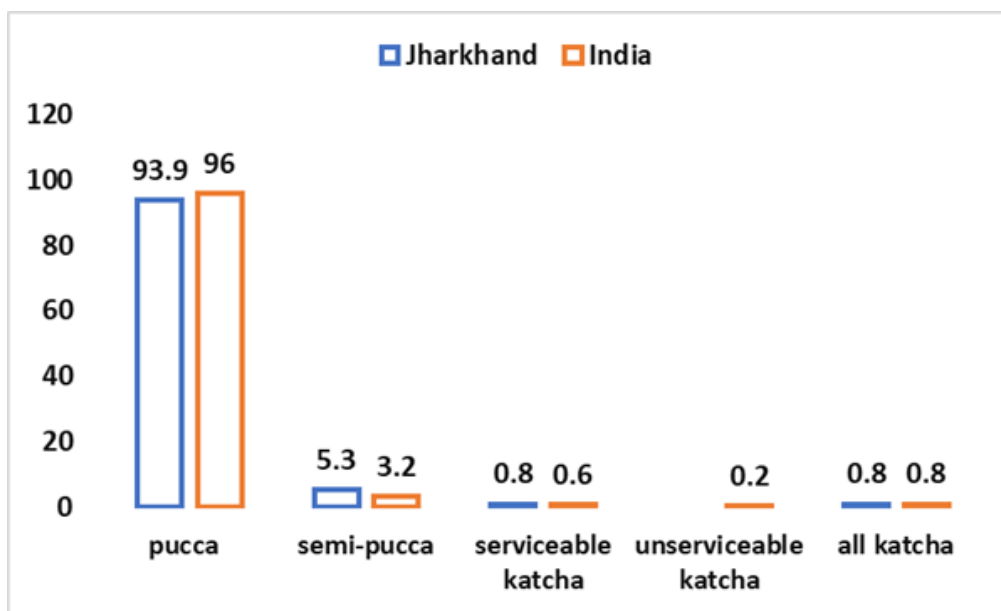
Source: NSS Report No. 584(July to Dec 2018): Drinking Water, Sanitation, Hygiene and Housing Conditions in India

**Access to housing**

In terms of the types of the structure of the houses in urban areas of Jharkhand, about 93.9% of the households have pucca houses whereas, about 96% of the households live in pucca houses at the national level. Similarly, 5.3% of the households have semi-pucca houses in Jharkhand and

3.2% in India. The percentage of the households living in serviceable katcha houses and non-serviceable katcha houses are 0.8% and 0.2% in Jharkhand. The proportion of the urban households living in all katcha houses are the same for Jharkhand and India. It is 0.8% (figure-5.3).

**Figure 5.3: Percentage Distribution of Households living in Houses by the type of the Structures of Dwelling Units (urban)**



Source: NSS Report No. 584(July to Dec 2018): Drinking Water, Sanitation, Hygiene and Housing Conditions in India

**Section-B: Achievements of programmes of urban development**

**Deendayal Antyodaya Yojana- National Urban Livelihood Mission (DAY-NULM)**

The NULM replaced the existing Swarna Jayanti Shahari Rozgar Yojana (SJSRY) in September 2013 and renamed as DAY-NULM in February 2016. The main aim of the mission is to reduce poverty and vulnerability of the urban poor households by enabling them to access self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots level institutions of the poor. The mission would aim at providing shelter equipped with essential services to the urban homeless in a phased manner. In addition, the Mission would also address livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills to the urban street vendors for accessing emerging market opportunities. The scheme covers all the urban local bodies (ULBs) of Jharkhand.

**Progress of DAY-NULM in Jharkhand**

The programme runs through five components- Social Mobilisation and Institutional Developments (SM&ID), Employment through Skill Training and Placement (EST&P), Financial Inclusion and Self-Employment Programme (FI&SEP), Support to Urban Street Vendors(SUSV) and Shelter for Urban Homeless (SUH). These components have been designed to improve the quality of life of the urban poor by increasing their social mobilisation, livelihood opportunities and financial inclusion.

**(a) Social Mobilisation and Institutional Development**

The DAY-NULM envisages universal social mobilization of urban poor into Self-Help Groups (SHGs) and their federations to form their own institutions to fight the problem of poverty in the most effective and sustainable manner. Under this scheme at least one member from each urban poor household, preferably a woman, should be brought under the Self-Help Group network in a time-

bound manner. These groups would serve as a support system for the poor to meet their financial and social needs.

In the FY 2019-20 about 2,237 SHGs were formed and the total number of members in these groups were

22,236. Four city level federations and 152 area level foundations were also formed. A total of 2,298 SHGs have got revolving fund too. Till 20th February 2020 in the FY 2020-21 about 1,044 new SHGs with 10,440 members have been formed and 208 SHG have got revolving fund (table-5.1).

**Table 5.1: Achievements under Social Mobilization and Institutional Development**

Program monitoring parameters	Achievements		
	2020-21	2019-20	2018-19
No. of Self-help groups formed under NULM	1044	2237	2827
No. of members of Self-help groups	10440	22236	28450
No. of Area level Foundation (ALF) formed under NULM	21	152	129
No. of City level federations formed under NULM	0	4	0
No. of SHG which got Revolving Fund (RF)	208	2298	2507

Source: Directorate of Municipal Administration, Government of Jharkhand.

**(b) Employment through Skill Training and Placement**

The main objectives of the programme are to train urban youth who are below poverty line (BPL) and provide them with either salaried employment or self-employment opportunities. Table-5.2 shows the achievements under employment through skill training and placements in Jharkhand. More than 11.1 thousand

candidates completed their training in the FY 2019-20. Similarly, 10.1 thousand candidates completed their training in the FY 2018-19. In the FY 2020-21, till December 2020 about 1,866 candidates are undergoing training. Out of 1,866 the number of the ST candidates are 445, the SC candidates are 172 and the rest 1,249 candidates belong to other population category.

**Table 5.2: Achievements under Employment through Skill Training and Placements**

Population categories	No. of Persons					
	2020-21		2019-20		2018-19	
	Undergoing training	Completed training	Undergoing training	Completed training	Undergoing training	Completed training
ST	445	0	0	985	0	921
SC	172	0	0	1204	0	1147
Others	1249	0	0	8998	0	8032
Total	1866	0	0	11187	0	10100

Source: Directorate of Municipal Administration, Government of Jharkhand.



**Box 5.1: Sushila Mahila Samiti Success Story  
(A SHG of Ranchi Municipal Corporation area)**

Sushila Mahila Samiti became very famous when its success story was shown on DD News channel. It was constituted on 29.09.2019 in Harmu, Ranchi. The samiti was started with 10 women who initially decided to contribute only Rs. 10 each from their savings. These women were trained to assemble LED bulbs.

They are running their business successfully. At present, each member of the samiti is able to earn up to 50 to 60 thousand rupees per month through the sale of LED bulbs. Their bulbs are sold mainly in Ranchi, Purulia, Bokaro and Dhanbad.

The DD News channel encouraged the good works of the samiti and appraised it by giving a coverage to the success story of the samiti.

Source: [https://www.dmajharkhand.in/files/Success\\_story/6017d1be23b92-4bfcc4b1fc9284fbfd6f9427eb51d235.pdf](https://www.dmajharkhand.in/files/Success_story/6017d1be23b92-4bfcc4b1fc9284fbfd6f9427eb51d235.pdf)

**(c) Financial Inclusion and Self Employment Programme**

This component of DAY-NULM focuses on providing financial assistance to individuals and groups of urban poor who are desirous of setting up gainful self-employment ventures or micro enterprises, suited to their skills, aptitude and local conditions. Besides generation of income, the component empowers the urban poor by making them self-reliant. The urban local bodies provide support for processing loan application for

individual urban poor. It also supports in assessing the skills requirement of the beneficiary and linking them with training programmes of Rural Self-Employment Training Institutes (RSETI).

The total number of beneficiaries under FI and SEP are 1154 in the FY 2020-21 (ason 20thFebruary2020). The number of beneficiaries under SEP- individual are 144 and number of beneficiaries under the SHG credit linkage are 1,010 (table-5.3).

**Table 5.3: Achievements under Financial Inclusion and Self Employment Programme**

Program monitoring parameters	Number of beneficiaries		
	2020-21	2019-20	2018-19
SEP - Individual	144	1525	1609
SEP - Group	0	9	9
SHG Credit Linkage	1010	3590	2760
Total	1154	5124	4378

Source: Directorate of Municipal Administration, Government of Jharkhand.

### (d) Support to Urban Street Vendors

This programme aims to organise street vending activities in the urban centres of Jharkhand by conducting a survey of the street vendors by issuing them an I-Card to facilitate their linkage with different welfare schemes of the government. Thus, the programme promotes financial inclusion, training, and insurance coverage for identified street vendors across the state.

The scheme has proved very effective in making the street vending business more organised and it has improved their financial inclusion too. Table-5.4 shows progress of the support to urban street vendors scheme in Jharkhand. In the FY 2019-20, the survey of street

vendors was done in sixteen cities and 8,921 vendors were identified through the biometric survey. Out of total identified vendors 4,899 were issued ID-cards, 8,645 were given training under capacity building and 5,512 participated in financial literacy camps. As a result of these, 3,077 street vendors opened basic savings account and 457 of them linked themselves to insurance schemes. In the FY 2020-21, fifty-one cities have been selected for survey and till December 2020, about 17,921 vendors have been identified in the biometric survey. Out of these 1,095 vendors have got their ID-cards and 2,751 have opened the basic savings accounts in their name.

**Table 5.4: Achievements under Support to Urban Street Vendors**

Program monitoring parameters	Progress		
	2020-21	2019-20	2018-19
Survey of Street Vendors			
No. of cities to be covered for street vendors	50	44	28
No of cities in which vendor survey has started	50	44	28
No. of street vendors identified in surveyed cities (Biometric Survey)	17921	8921	27861
No. of street vendors issued ID cards	1095	4899	19254
Financial inclusion, training and insurance of street vendors			
No. of basic savings account opened for street vendors	2751	3077	5745
No. of financial literacy camps organised for street vendors		5512	10536
No. of street vendors trained under capacity building		8645	10567
No. of credit card issued to street vendors		0	0
No. of street vendors linked to insurance scheme		457	1886

*Source: Directorate of Municipal Administration, Government of Jharkhand.*

### (e) Shelter for Urban Homeless

The shelter for urban homeless scheme ensures availability and access to permanent shelters for the urban homeless population which include the basic infrastructure facilities like water supply, sanitation, safety and security. This scheme is unique and helps in easing the miseries of vulnerable urban homeless population. There are about 3043 vulnerable segments of the urban homeless population (dependent children, aged, disabled, mentally ill and people recovering from

grave illness) and hence this scheme is very significant. As in December 2020, the total number of beds for urban homeless in 95 shelter homes across 45 towns/cities of Jharkhand are 2,178. Table-5.5 shows city-wise availability of shelter homes, beds and increase in their numbers in the last three financial years. Ranchi (218) has the maximum number of available beds followed by Jamshedpur (146) and Deoghar (145).

**Table 5.5: Achievements under Shelter for Urban homeless (SUH) Programme**

Cities	Shelter for Urban homeless					
	2020-21		2019-20		2018-19	
City Name	No. of Shelter homes	No. of Beds	No. of Shelter homes	No. of Beds	No. of Shelter homes	No. of Beds
Adityapur	3	80	3	80	3	80
Barharwa	2	20	2	20	2	20
Basukinath	2	20	2	40	2	40
Bishrampur	2	20	2	20	2	20
Bundu	2	20	2	20	2	20
Chaibasa	1	15	1	20	1	20
Chakradharpur	1	15	1	12	1	12
Chakulia	2	16	2	12	2	12
Chas	2	35	2	35	2	35
Chatra	2	20	2	20	2	20
Chhatarpur	2	20	2	20	2	20
Chirkunda	1	50	1	50	1	50
Deoghar	3	145	3	145	3	145
Dhanbad-Cum-Kendudih-Cum-Jagata	2	70	2	100	2	100
Domchanch	1	10	1	20	1	20
Dumka	1	50	1	50	1	50
Garhwa	2	100	2	100	2	100
Giridih	2	33	2	30	2	30
Godda	1	60	1	40	1	40
Gumla	2	10	2	60	2	60
Hazaribagh	1	50	1	50	1	50
Husasainabad	2	20	2	20	2	20
Jamshedpur (NAC)	7	146	7	174	7	174
Jamtara	1	10	1	10	1	10
JhumriTilaiya (Nagar Parishad)	2	20	2	20	2	20
Jugsalai	2	20	2	20	2	20
Kapali	2	20	2	20	2	20
Khunti	2	20	2	20	2	20
Koderma	2	60	2	70	2	70
Latehar	2	60	2	60	2	60
Lohardaga	2	50	2	24	2	24
Madhupur	2	100	2	20	2	20
Majhiaon	2	20	2	20	2	20
Mango	2	65	2	65	2	65
Medininagar (Daltonganj)	2	100	2	60	2	60

Cities	Shelter for Urban homeless					
	2020-21		2019-20		2018-19	
City Name	No. of Shelter homes	No. of Beds	No. of Shelter homes	No. of Beds	No. of Shelter homes	No. of Beds
Mihijam	1	10	1	10	1	10
Nagarutari	2	20	2	20	2	20
Pakur	2	60	1	20	1	20
Phusro	2	20	1	10	1	10
Rajmahal	2	20	2	20	2	20
Ramgarh	1	50	1	50	1	50
Ranchi	11	218	11	191	11	191
Sahibganj	2	100	2	100	2	100
Saraikela	1	50	1	50	1	50
Simdega	2	60	2	60	2	60
	95	2178	93	2078	93	2078

Source: Directorate of Municipal Administration, Government of Jharkhand.

### Box 5.2: Mukhyamantri SHRAMIK (ShahriRozgarManjuriForKamgar) Yojana- 2020

This new scheme aims to provide employment opportunities to the urban poor. The migrant labourers who had to return to Jharkhand due to the pandemic, will be benefited under this scheme.

It is a 100 days employment scheme, wherein the beneficiary will be provided employment for 100 days within 15 days of receiving application. In case work is not provided then the beneficiary will get an employment allowance.

Employment under Mukhyamantri SHRAMIK yojana is a legal entitlement. Applicants can apply for a job card under the scheme, download the job card, demand work and register grievances. The scheme has an exclusive website-<https://msy.jharkhand.gov.in> to provide all these facilities online.

#### Progress of MSY at a glance (as on 19.02.2021)

Number of applications received	Number of job cards generated	Number of people who demanded work	Number of people who were allotted work
22,955	17,190	1,844	1,577

Source: <https://www.dmajharkhand.in/index.php/msy#>

### Pradhan Mantri Awas Yojana – Urban

Pradhan Mantri Awas Yojana – Urban (PMAY-U) is a flagship mission of the Ministry of Housing and Urban Affairs (MoHUA) and was launched on 25th June 2015. The Mission addresses urban housing shortage among the economically weaker sections (EWS)/low-income groups (LIG) and middle-income groups (MIG) categories including the slum dwellers by ensuring a pucca house to all eligible urban households by the year 2022. All houses under PMAY(U) should have basic amenities like toilet, water supply, electricity and

kitchen. The Mission promotes women empowerment by providing the ownership of houses in name of female member or in joint name. Preference is also given to differently abled persons, senior citizens, SCs, STs, OBCs, Minority, single women, transgender and other weaker & vulnerable sections of the society. A PMAY(U) house ensures dignified living along with sense of security and pride of ownership to the beneficiaries. The scheme has four components- In-situ slum re-development (ISSR) in which land of the beneficiary is used as resource, affordable housing in partnership (AHP) with private or public sector, beneficiary-led individual house construction or enhancement (BLC)

and affordable housing through credit-linked subsidy scheme (CLSS).

**Progress of PMAY-U in Jharkhand**

Table-5.6 shows the overall progress of PMAY-U in Jharkhand. Since the launch of the scheme, Jharkhand has completed 67,899 houses as on 21st February, 2021. During this period 405 project proposals were considered; more than 1.98 lakh houses were sanctioned and more than 1.30 lakh houses were grounded. In

terms of financial progress, the state has also received Rs. 1,800.89 crore as central assistance during the same period. Table-5.7 shows about the demand for houses under different components of PMAY-U till February 2021. The total demand for houses is 2,72,781 and out of which 1,37,983 is under BLC, 8,264 is under CLSS, 52,584 is under ISSR and 73,950 is under AHP. These demands are from 50 different towns in the state. A total of 405 projects have been sanctioned under this scheme and Rs. 895.65 Crore have been given as state share.

**Table 5.6: Progress of PMAY-U in Jharkhand (as on 21.02.2021)**

Project Proposal Considered	Physical Progress (Numbers)			Financial Progress (Rs. in crore)		
	Houses Sanctioned	Houses Grounded*	Houses Completed*	Investment	Central Assistance	
					Sanctioned	Released
405	1,98,547	1,30,061	67,899	2294.91	1800.89	

Source: Department of Urban Development and Housing, Government of Jharkhand.

**Table 5.7: Demand for houses under different verticals of PMAY-U in Jharkhand (till February 2020)**

Particulars		Numbers
Total target of houses to be constructed in different verticals under PMAY-U		
Total demand of houses till date in different verticals under PMAY-U		2,72,781
i	Beneficiary-led construction (BLC)	1,37,983
ii	Credit-linked subsidy scheme (CLSS)	8,264
iii	In-Situ Slum Redevelopment (ISSR)	52,584
iv	Affordable Housing in Partnership (AHP)	73,950
Total towns covered		50
Total sanctioned projects		405
I	Beneficiary-led construction (BLC)	327
Ii	In-Situ Slum Redevelopment (ISSR)	27
iii	Affordable Housing in Partnership (AHP)	51
Total sanctioned dwelling units		1,98,547
Particulars		Financial details In Rs. lakhs
Total Central share		2899,12.00
Total State share		1640,51.25
Central share released		1800,89.00
Total expenditure (till February , 2021)		1960,26.15

Source: Department of Urban Development and Housing, Government of Jharkhand.

### **Box 5.3: World Bank approves \$147 Million Loan to the Government of Jharkhand for the implementation of Jharkhand Municipal Development Project(JMDP)**

The Government of India, the Government of Jharkhand and the World Bank, signed a \$147 Million Loan Agreement on June 24, 2019 to provide basic urban services to the people of Jharkhand and help improve the management capacity of the urban local bodies (ULBs) in the State.

The Jharkhand Municipal Development Project will focus on improving the municipal sector's capacity to provide basic urban services. It will invest in urban services such as water supply, sewerage, drainage, and urban roads and strengthen the capacity of the Jharkhand Urban Infrastructure Development Company (JUIDCO) as well as that of the ULBs to carry out reforms in the areas of urban finance and governance.

This is in keeping with the needs of a rapidly urbanizing state where about 31 million people reside in urban areas and urban population growth in nine of 24 districts in Jharkhand is above India's overall urbanization pace of 2.7 percent.

Most of these components will be open to all 50 ULBs in the state who may wish to participate within an agreed framework under the project. Over 350,000 urban residents of the participating ULBs are expected to benefit, of which at least 45 percent will be women.

Interventions such as piped water supply, storm water drains, climate friendly road construction and energy efficient street lighting will not only help improve urban services but also make it environmentally sustainable.

Work on two sub-projects – Khunti water supply sub-project and the Dhanbad roads subprojects are in progress. Through its other key components, the project will improve urban governance by assisting ULBs to improve their organizational capacity, manage finances in a sustainable manner, and focus on the development of its nodal implementing agency, JUIDCO.

The loan from the International Bank for Reconstruction and Development (IBRD) has a 7-year grace period and a final maturity of 22.5 years.

*Source: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=190696>*

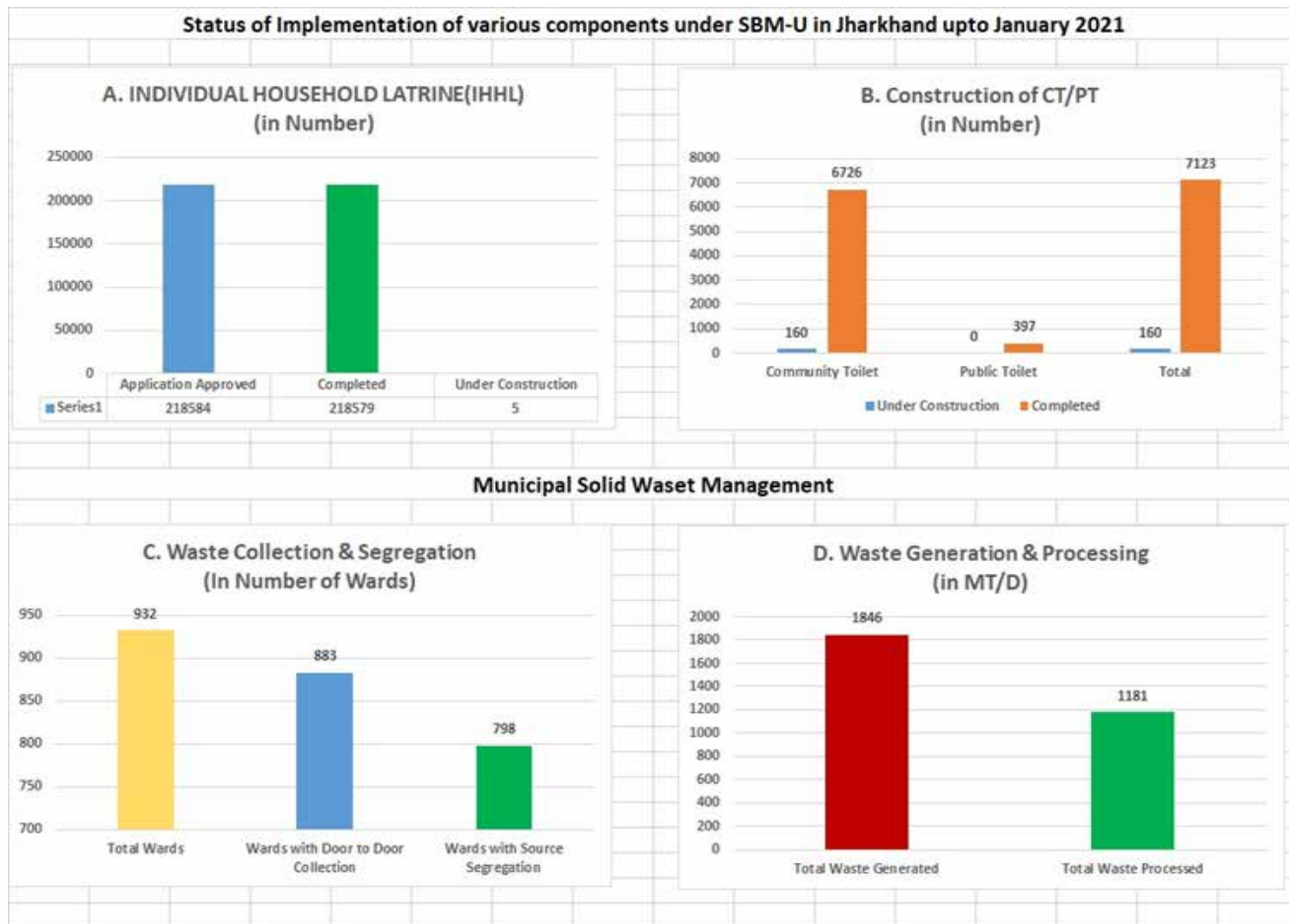
### **Swachh Bharat Mission- Urban**

The Swachh Bharat Mission – Urban (SBM-U), launched on 2nd October 2014 aims at making urban India free from open defecation and achieving cent percent scientific management of municipal solid waste in 4,041 statutory towns in the country. The key components of this mission are construction of toilets, solid waste management and creating public awareness. The mission is progressing smoothly in Jharkhand and the urban areas of the state has been declared open defecation free (ODF) in 2018 and open defecation free plus (ODF+) in 2020. Also, two cities namely Jamshedpur & Sahibganj are open defecation free plus plus (ODF++). Jamshedpur has got three stars in the recently started star ranking

process of garbage free cities in India. Figure-5.4 shows the progress of SBM-U in Jharkhand.

More than 2.18 lakhs individual households' latrine have been constructed in the state since the launch of the scheme. Similarly, the constructions of 7,123 (Seats) community and public toilets have been completed. In terms of waste management, more than 95% of the total wards are covered under door-to-door waste collection facilities and more than 80% are covered under source segregation too. About 64% of the total waste generated are processed in Jharkhand too.

**Figure 5.4: Status of SBM-U in Jharkhand (up to January, 2021)**



Source: Department of Urban Development and Housing, Government of Jharkhand.

**Box 5.4: SWACHH SURVEKSHAN 2020 (SS2020)**

SwachhSurvekshan is an annual ranking exercise taken up to assess urban areas of the country on their levels of cleanliness and active implementation of Swachhta mission initiatives in a timely and innovative manner. The objective of the survey is to encourage large scale citizen participation and create awareness amongst all sections of the society about the importance of working together towards making towns and cities a better place to live in. In addition, the survey also seeks to promote a spirit of healthy competition between towns and cities; to improve the quality of their services to people and to create cleaner cities and towns.

Various awards to Jharkhand in SS2020

Source: <https://swachhsurvekshan2020.org/ImpDocs/SS2020fullreport.pdf?id=1bdvd885n4ac8we0>

**PM SVANidhi**

The PM Street Vendor’s Atma Nirbhar Nidhi (PM SVANidhi) was launched by the Ministry of Housing and Urban Affairs on June 01, 2020 for providing affordable Working Capital loan to street vendors to resume their livelihoods that have been adversely affected due to Covid-19 lockdown. The scheme is a Central Sector Scheme i.e., fully funded by Ministry

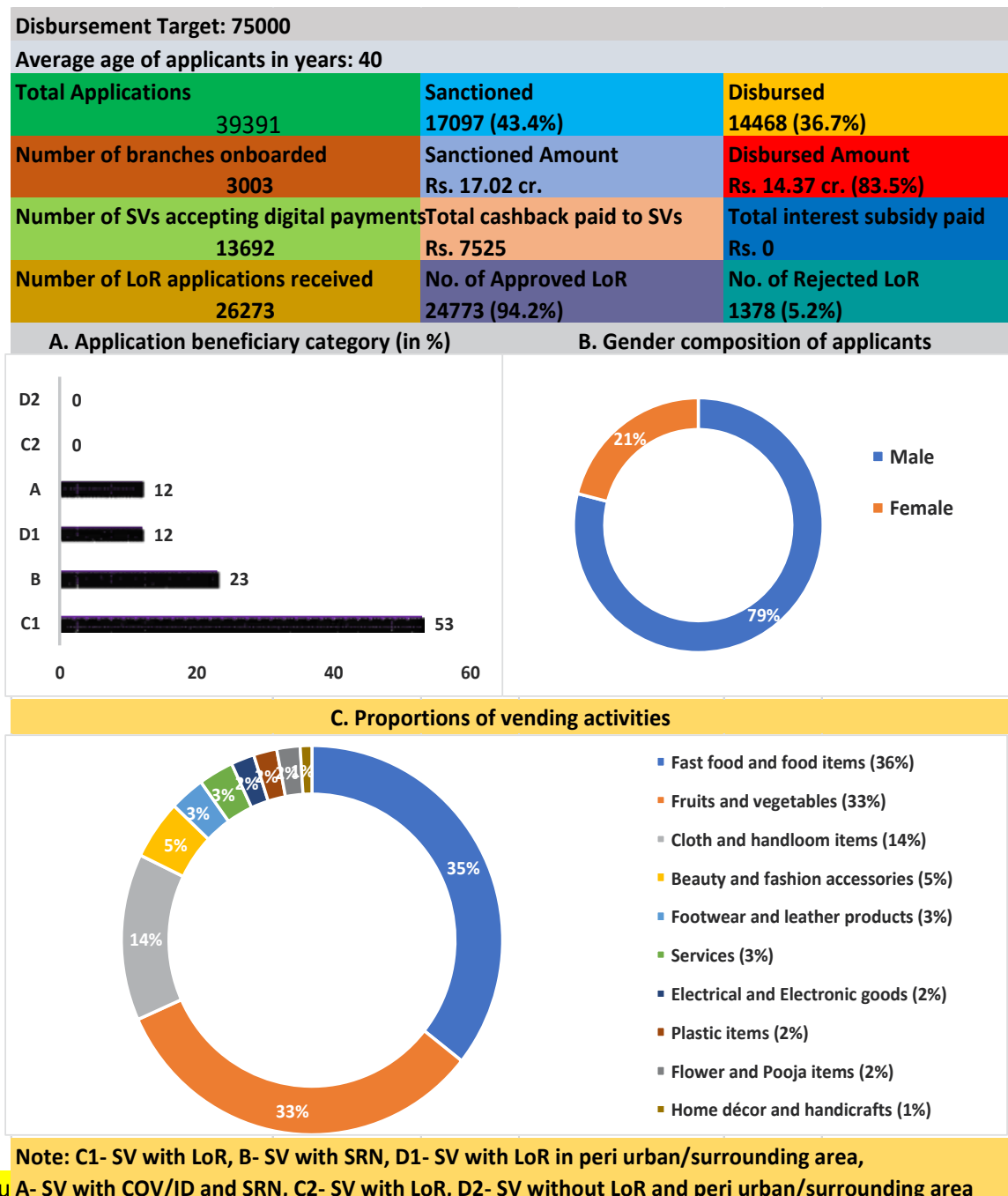
of Housing and Urban Affairs. The duration of the scheme is till March 2022. Under this scheme vendors can avail a working capital loan of up to Rs. 10,000, which is repayable in monthly instalments in the tenure of one year. On timely/ early repayment of the loan, an interest subsidy @ 7% per annum will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer on a quarterly basis. There will be no penalty on early repayment of loan. The scheme promotes

digital transactions through cash back incentives up to an amount of Rs. 100 per month and the vendors can also avail the facility of escalation of the credit limit on timely/ early repayment of loan.

Figure-5.5 shows the progress of PM SVANidhi in Jharkhand. The total number of beneficiaries targeted for Jharkhand is 75,000 and as on 21st February 2021, about 39400 applications have been received for loans

under this scheme. Out of the total applications received, 43.4% are already sanctioned loans and 36.7% of them have got the disbursement too. The total sanctioned and disbursed amounts are Rs. 17.02 crores and Rs. 14.7 crores respectively. Out of the total applicants more than 80% of them are engaged in just three activities- fast food and food items, fruits and vegetables, cloth and handloom items.

**Figure 5.5: Progress of PM SVANidhi in Jharkhand (as on 21st February, 2021)**



Source: <https://www.pmsvanidhi.mohua.gov.in/Home/PMSDashboard>



### Ranchi Smart city project

The smart cities mission is an innovative and new initiative by the government of India to drive economic growth and improve the quality of life of people in the urban areas by enabling local development and harnessing technology as a means to create smart outcomes for citizens. The capital city of Jharkhand- Ranchi was selected as the Smart City under fast track round on 25th May 2016. The Govt. of Jharkhand proposed for a Greenfield project at the HEC area which consist of 656.30 acres of land where all basic amenities, security, health, transportation etc. will be provided using innovative and modern technology. The Government of Jharkhand has envisioned to make Ranchi the Smart City and “A Vibrant Knowledge Hub” with high quality of life.

### The development of Ranchi Smart City has two major components:

#### Area based development (ABD)

#### Pan city development project

In the Greenfield ABD area of 656.30 acres land, implementation work is in progress. Integrated Infrastructure Development work for ABD site comprising land development, Transportation and Circulation, Water supply and reuse, Waste water management, Storm Water, Street lighting, Power Distribution network are under implementation. The Project cost is Rs. 469.96 crores and it has achieved physical progress of 51% and financial progress of 48% as on date. Apart from this two impactful projects of the Govt. of Jharkhand via. Urban Civic Tower and Jharkhand Urban Planning and Management Institute (JUPMI) is in progress.

For supplying uninterrupted power supply in ABD area, development of 220/33 kV GIS based Sub-station and shifting of 132 kV transmission line is under implementation by JUSNL. As on date, the Project has achieved 75% of physical progress.

For supplying 24x7 water supply in ABD area, a project for 12 MLD water from Hatia dam to ABD site is in the final stage.

For Pan City Project under Smart City Mission, the project of Command Control and Communication Centre (C4) is in progress and currently around 80% progress has been achieved. The project has gone live and inaugurated by the Hon’ble Chief Minister on 29.12.2020. The Command Control and Communication

Centre (C4) project is under operation with different modules like Intelligent Traffic Management System (ITMS), Variable Message Signboard (VMS), Public Address System (PA), Emergency Call Box (ECB), City Mobile app. etc. The PBS scheme (Phase-1) is under operation with 600 cycles at 60 docking stations in different part of the city to provide last mile connectivity and to promote non-motorized transport. The second phase with another 600 cycles and 60 docking stations is under progress and is going to be operational soon.

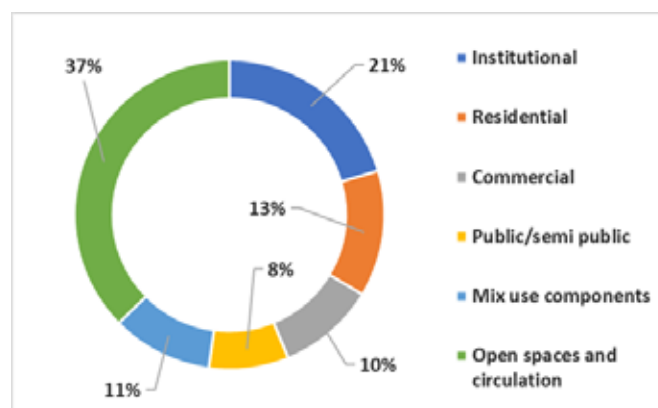
### SOURCES OF FUND

The Ranchi Smart City Mission is a centrally sponsored scheme and the Central Government is providing grants of Rs. 100 crores per year for 5 years and a matching share is being provided by State Government. Till date Ranchi Smart City has received 4 installments of Rs. 392 crores from Central Government and a matching share has been provided by State Government. For 5th and the last installment request letter has been sent to the Smart City Mission, Ministry of Housing and Urban Affairs, New Delhi.

### E-AUCTION OF LAND

Ranchi Smart City has published the NIT for e-auction of 51 plots of land for Residential, Institutional, Commercial, Mix Use and Public/Semi-Public in ABD area. For allotment, disposal and utilization of land in ABD area, Jharkhand Smart Cities Land and other fixed Assets (Utilization, Allotment and Disposal) Rules-2019 has been made and approved by the Cabinet, Govt. of Jharkhand. For broader participation of prospective bidders, Investors meet had been organised at Delhi, Mumbai, Kolkata, Dhanbad and Jamshedpur.

Figure 5.6: The proposed land use breakup under ABD (area in acres)



Source: <https://udhd.jharkhand.gov.in/Other/RSC.aspx>

## AMRUT Mission

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) was launched in June 2015 under the “Ministry of Housing and Urban Affairs” with the focus to establish infrastructure that could ensure urban transformation by implementing urban revival projects. The mission aims to ensure that every urban household must have access to tap water and sewerage connection, increase amenities in cities by developing greenery and well-maintained open spaces like parks and finally-to reduce pollution by developing public transport and constructing facilities for non-motorized transport.

Accordingly, Water supply, sewerage-septage management, storm water drains to reduce flooding, non-motorized transport, parks and recreation centers for children are areas of action under this mission. In terms of meeting the financial burden of the projects of this mission, the centre has committed to the states to less bear 50% of the project cost of the cities having less than 10 lakhs of population and 1/3 of that having more than 10 lakhs of population.

## Progress of AMRUT in Jharkhand

Seven cities of Jharkhand are covered under the AMRUT mission. They are Ranchi, Dhanbad, Chas, Deoghar, Adityapur, Hazaribagh and Giridih. Table-5.8 shows the population of these cities as per the census of 2011. Thus, four cities- Giridih, Hazaribagh, Chas, Adityapur and Deoghar have less than 10 lakhs of population whereas, Ranchi and Dhanbad have more than 10 lakhs of population.

**Table 5.8: Population of seven cities of Jharkhand covered under the AMRUT as per the census of 2011**

Cities	Population
Giridih	1,14,533
Hazaribagh	1,42,489
Chas	1,56,888
Adityapur	1,74,355
Deoghar	2,03,123
Ranchi	10,73,427
Dhanabad	11,62,472

Source: Census-2011.

## Finances of the projects under AMRUT

The total approved project cost for AMRUT projects in Jharkhand is Rs. 1615.06 crore which comprises water Supply projects of Rs. 1334.18 crore, Sewerage & Septage projects of Rs. 251.50 crore and Park projects of Rs. 29.38 crore. However, the Government of India has approved the projects worth Rs. 1245.74 crore against three State Annual Action Plans (SAAPs) based on which the centre has committed to provide Rs. 566.17 crore as Central Assistance. Table-5.9 and 5.10 depict the sector-wise and city-wise fund allocation for the implementation of the AMRUT Projects.

**Table 5.9: Sector-wise Fund allocation for AMRUT Projects**

Sector	Fund Allocation (Rs. Cr.)
Water supply	1334.18
Sewerage and septage management	251.50
Drainage	0.00
Urban transport	0.00
Green spaces and parks	29.38
Grand total	1615.06

Source: SUDA, Jharkhand

**Table 5.10: Sector-wise as well as city-wise fund allocation of AMRUT Projects**

(Amount in crores)

Names of the cities	Water supply	Sewerage/ septage management	Drainage	Urban transport	Green spaces and parks	Total amount
Ranchi	266.15	0.00	0.00	0.00	5.36	271.51
Deoghar	0.00	9.97	0.00	0.00	4.01	13.98
Hazaribagh	416.56	7.85	0.00	0.00	4.00	428.41
Giridih	36.32	6.87	0.00	0.00	2.99	46.18
Adityapur	326.55	217.84	0.00	0.00	4.02	548.41
Chas	129.29	8.97	0.00	0.00	4.00	142.26
Dhanbad	159.31	0.00	0.00	0.00	5.00	164.31
Total	1334.18	251.50	0.00	0.00	29.38	1615.06

Source: SUDA, Jharkhand

Out of 46 projects sanctioned under AMRUT, the State has completed 34 projects (33 parks and 1 water supply) which consist of five parks each in Deoghar, Adityapur, Chas, Ranchi & Giridih and four parks each in Dhanbad & Hazaribagh and one water supply project in Giridih. All completed projects are dedicated to the citizens and are under Operation & Maintenance of ULBs. The State has incurred an expenditure of Rs. 600.63 crore which is 82% of total fund received till the 2nd installment of the Central and State share.

It is worthwhile to mention that the overall physical progress of all AMRUT projects in the State of Jharkhand is 65% and it is being contemplated to complete the balance projects at the earliest.

### Namami Gange project

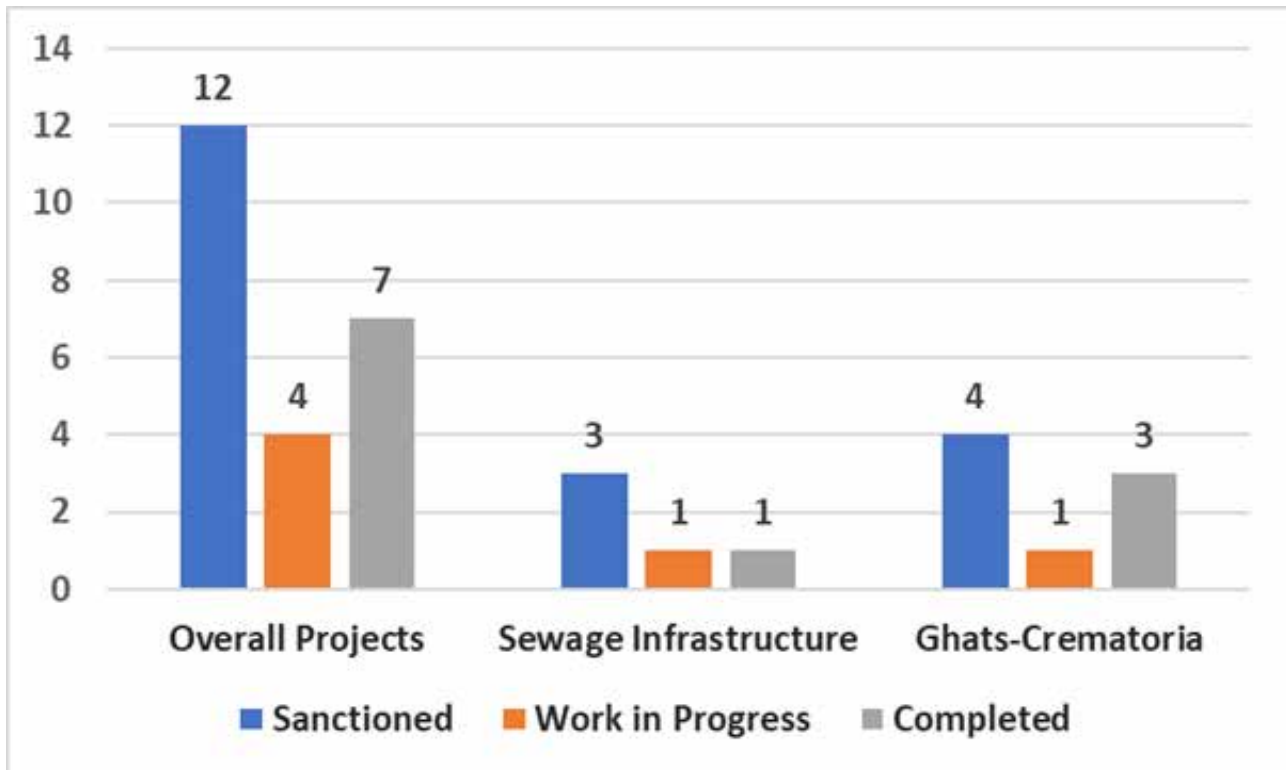
It is an Integrated Ganga Conservation & Rejuvenation Mission for restoring wholesomeness of stream Ganga regarding characterizing the idea of guaranteeing Nirmal Dhara and Aviral Dhara with an oath to keep up ecological and geological integrity of the Ganga river.

The mission is being executed with the integral effort of three Government departments of the Govt of Jharkhand viz; Urban Development & Housing Department, Drinking water and sanitation department and the Department of Forest, Environment and Climate Change.

Departments of Urban Development & Housing, GoJ is the nodal agency for the implementation of the Namami Gange programme in Urban Areas of Jharkhand. In addition to above, Department of Drinking water and Sanitation (DWSD), Jharkhand is the nodal department for implementation of sanitation initiatives in the rural area of Sahibganj District. It is being implemented through the National Rural Drinking Water Programme and Swach Bharat Mission (Rural).

Figure-5.7 shows the physical progress of Namami Gange project in Jharkhand as in January 2021. Out of total 12 sanctioned projects seven projects have been completed whereas four projects are still running. One project is to be tendered.

**Figure 5.7: Physical progress under Namami Gange project in Jharkhand  
(as in January 2021)**



Source: <https://gisnmcg.mowr.gov.in/pmt/nmcgpmtmain.aspx>

**Conclusion**

Keeping in mind the rapid pace of urbanization, sustainable development of urban areas requires greater emphasis and the department of urban development and housing, government of Jharkhand has shown result and promising actions in this area. Schemes like DAY-NLM-U, PMAY-U, SBM-U, PMSWANidhi, AMRUT,

Smart cities, Mukhyamantri SHRAMIK Yojana, etc. are running well in the state and the significant results of these efforts are helping the government not only in fulfilling the diverse demands of the urban areas but also in making towns/cities more liveable.



# Chapter 6

## Agriculture and Allied Activities





Agriculture and allied activities constitute the mainstay of the rural population of Jharkhand. In Jharkhand, about 43 per cent of total workforce is dependent on agriculture and allied activities. Considering the importance of the sector, the state has persistently been making an effort to improve the production and productivity of this sector. The sector has witnessed growth in the output of both the kharif and the rabi crops in the past five years, however, there has been fluctuations in the trends of production. The output of horticultural crops and vegetables has also grown over the years along with that of the allied livestock-sector like milk, meat and eggs. There has been a consistent rise in the amount of credit being extended to the agricultural sector.

**Introduction**

Agriculture and the Allied sector contributes around 13 per cent of the state’s Gross Value Added (GSVA) and provides employment to aroundt 43 per cent of the workforce. In comparison to the percentage of workers engaged in this sector not only is its output is low but it has also fluctuated from year to year. This sector, thus, faces the challenge of making its activities more remunerative and consistent. The growth-rate of GSVA of Agriculture and the Allied Sector has fluctuated tremendously since 2011-12

with some years (2014-15 and 2016-17) registering positive and double-digit growth-rates while others (2013-14, 2015-16 and 2017-18) registering negative growth-rates.

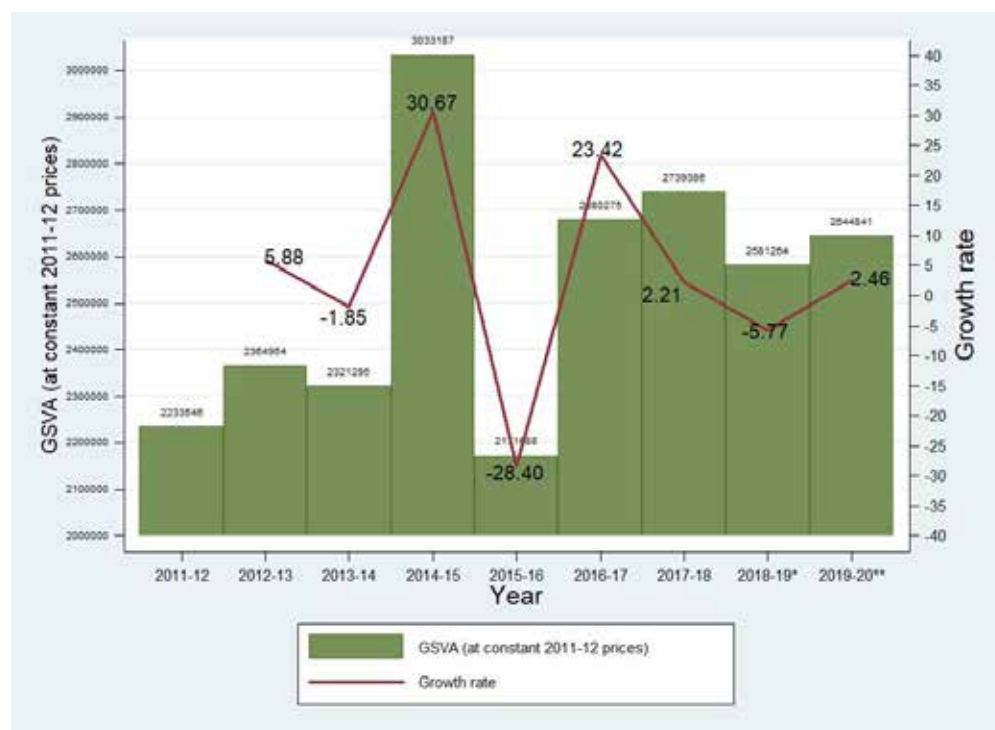
**Table 6.1: Gross State Value Added of Agriculture and Allied Sector at Current and Constant (2011-12) Prices (in Lakh Rupees)**

Year	GSVA (at current prices)	GSVA (at constant 2011-12 prices)	Growth Rate
2011-12	2233546	2233546	
2012-13	2550211	2364954	5.88
2013-14	2844224	2321295	-1.85
2014-15	4016315	3033187	30.67
2015-16	3146379	2171688	-28.40
2016-17	4033246	2680275	23.42
2017-18	4592177	2739386	2.21
2018-19*	4572199	2581264	-5.77
2019-20**	5090224	2644841	2.46

Source: Directorate of Economics and Statistics, Government of Jharkhand

\*Provisional Estimates \*\* Projected Values

**Figure 6.1: Gross State Value Added of Agriculture and Allied Sector at Constant (2011-12) Prices and the Growth Rate in it**





### Land Use Pattern

The total geographical area of Jharkhand is 7,972 thousand hectares. Of this only 17.37 per cent (amounting to 1,385 thousand hectares), is the net sown area. Almost equally large part of the total geographical area is current fallow i.e. 17.38 per cent. The fallow land other than the current fallow is 14.08 per cent of total geographical area<sup>1</sup>.

Chhatisgarh, which geographically, socially and economically is almost similar to Jharkhand, has a greater percentage of net sown area than what Jharkhand has. The net sown area of this state constitutes 33.94 per cent of its geographical area. The current fallow and fallow land other than the current fallows constitute only 1.94 and 1.87 per cent of the total geographical area of the state, respectively<sup>2</sup>.

Agriculture in Jharkhand is mainly rain-fed. The gross irrigated area is only about 15 per cent of the gross cropped area. As a result, agriculture in the state is by and large mono-cropped. The cropping intensity is only 126 per cent (<https://icar.org.in/files/state-specific/chapter/62.htm>). According to a study<sup>3</sup>, Kharif is the dominating crop of the state occupying about 78 per cent of its gross cropped area. The rest of the gross cropped area is occupied by rabi crop, two area crop and more than two area crop which is 5 per cent, 15 per cent and 1 per cent respectively. Zaid crop is grown on only 0.17 per cent of the gross cropped areas (Sharma, Lamay, Kullu, Singh and Jeyaseelan, 2012).

Development of agriculture in the state, therefore, requires expansion of its net sown area by reclaiming the waste land and bringing the fallow land into cultivation. Increasing the cropping intensity is also needed. Which can be done through expansion of the area under irrigation.

### Area, Production and Productivity during the Kharif Season

The production of kharif crops in the state has recorded an increasing trend on a large basis during the past five-

1 India State of Forest Report, 2019 Vol. II  
 2 India State of Forest Report, 2019 Vol. II  
 3 “Land Use and Land Cover Analysis of Jharkhand Using Satellite Remote Sensing” N. K. Sharma, J. B. Lamay , N. J. Kullu, R. K. Singh, A. T. Jeyaseelan. Research & Reviews: Journal of Space Science & Technology Volume 1, Issue 2, August 2012.

years ending in 2019-20 with an exception in 2018-19 and robust first advance-estimates for 2020-21 as presented in table 6.2 below. The overall area-coverage of 1938 thousand hectares under food-grains during the kharif season 2020-21 reflects an improvement of around 315 thousand hectares compared to 1623.5 thousand hectares covered under it during the same season of 2019-20. The production-trends are expected to improve unabated.

**Table 6.2: Area, Production and Yield of Kharif Crops**

**Area-000’ hectares, Production in 000’ tonnes, Yield in Kg/Hectare**

Financial Year	Total Area	Total Production	Yield
2015-16	1889.484	2955.701	1564
2016-17	2020.040	5420.628	2683
2017-18	2042.932	5729.153	2804
2018-19	1798.451	3350.864	1863
2019-20	1623.521	4121.792	2539
2020-21 (1st Advance estimate)	1938.162	4581.954	2364

*Source: The Directorate of Agriculture, Government of Jharkhand*

### Area

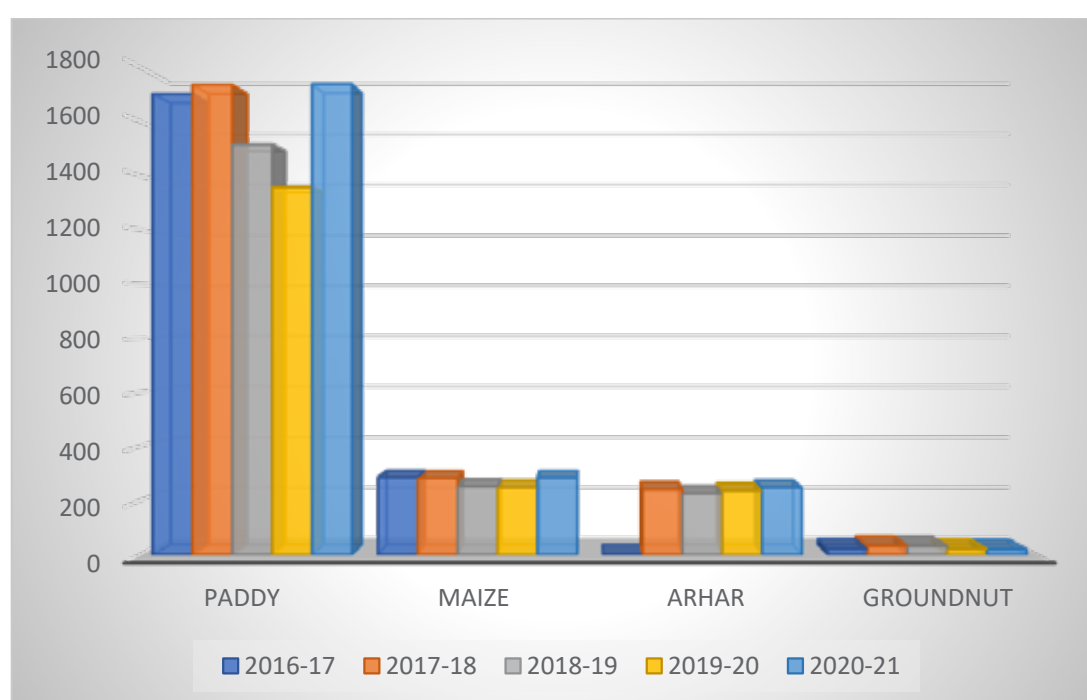
Paddy is the most important kharif crop grown in the state both in terms of the total output as well as the area under cultivation. As per the 1st advanced estimates for the year 2020-21 the total cultivated area under kharif crops stands at 1938 thousand hectares, of which around 84.7 per cent is occupied by paddy. This is followed by maize that is grown in about 14 per cent of the total cultivated area of the kharif crops.

**Table 6.3: Trends in Area, Production and Yield of the Principal Kharif Crops**

Area-000' hectares, Production in 000' tonnes, Yield in Kg/Hectare

Crop	2016-17			2017-18			2018-19			2020-21		
	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
Paddy	1678.96	4988.06	2971	1735.4	5131.9	2957	1527	2894	1895	1641.21	3975.99	2423
Maize	286.23	578.07	2020	294.7	596.7	2025	261.1	455.3	1744	280.8	592.7	2111

Source: SAMETI, Jharkhand

**Figure 6.2: Trends in Area under Kharif Crops**


Source: All India Crop-Situation data, DES, GOI and Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

### Production

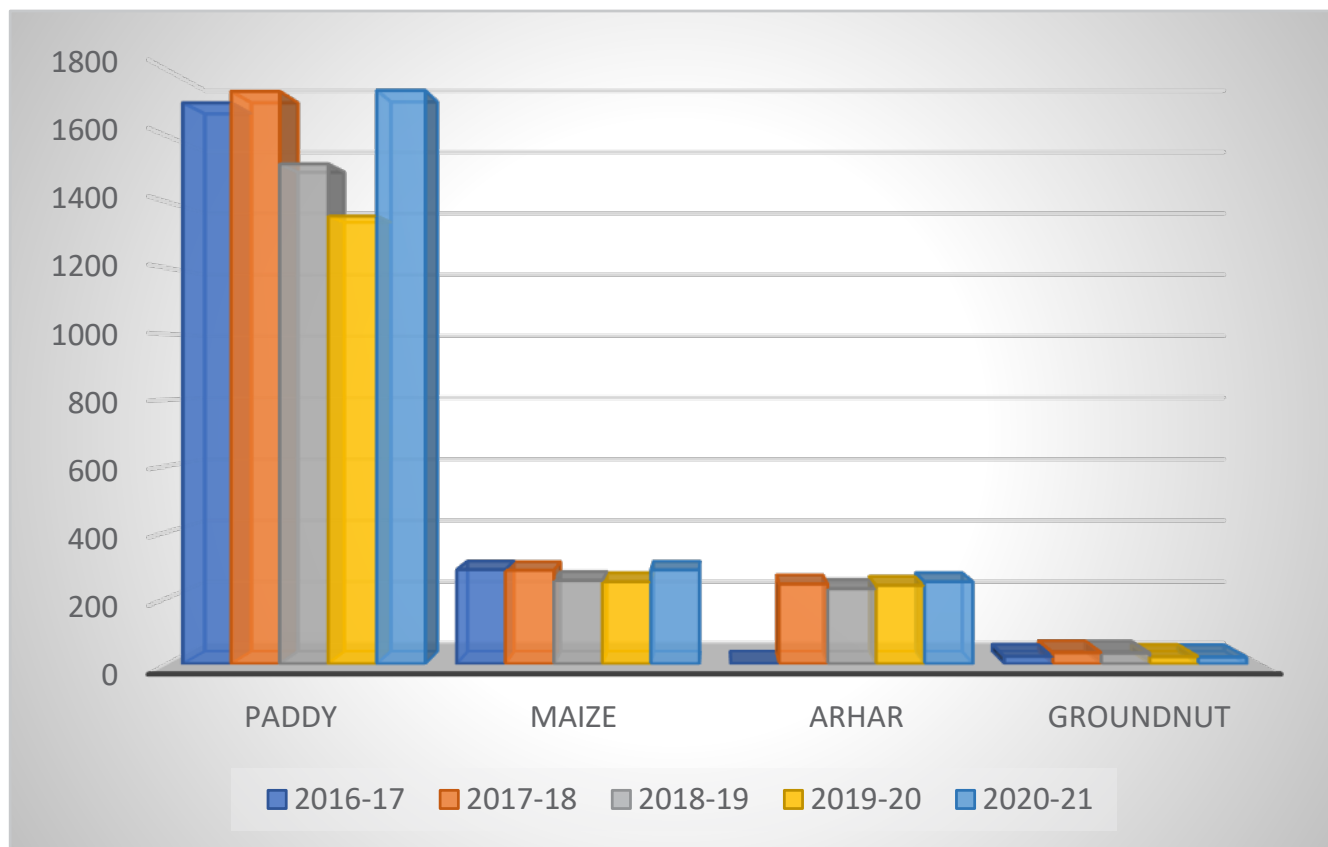
The output of paddy recorded a bumper harvest in 2017-18. The total output of paddy during this year was about 5132 thousand tonnes. The output of this crop, however, showed a sharp decline in 2018-19, recording an output of 2894 thousand tonnes only. Thus, the output of paddy recorded a decline of about 44 per cent between the years 2017-18 and 2018-19. This was because of both decrease in area under this crop and the fall in its productivity. In comparison to 2017-18, in the year 2018-19, the area under paddy decreased by about 12 per cent and its yield declined by about 36 per cent.

Maize is another important kharif crop of the state. This crop also recorded a bumper harvest of about 597

thousand tonnes in the year 2017-18. The output of this crop also fell by about 24 per cent between 2017-18 and 2018-19. There were two reasons for the decrease in its output i.e. the shrinkage in the areas under this crop and decrease in its productivity. In comparison to 2017-18, in the year 2018-19, the area under maize decreased by about 11 per cent and its yield declined by about 14 per cent.

The area, output and yield of both these crops, however, has recovered to a large extent in the year 2020-21. The area, output and yield of paddy has increased by 7.5 per cent, 37.4 per cent and 28 per cent respectively and that of maize by 7.5 per cent, 30.2 per cent and 21.0 per cent respectively in 2020-21, in comparison to the previous year.

**Figure 6.3: Trends in the Production of Kharif Crops**



Source: All India Crop-Situation data, DES, GOI and Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

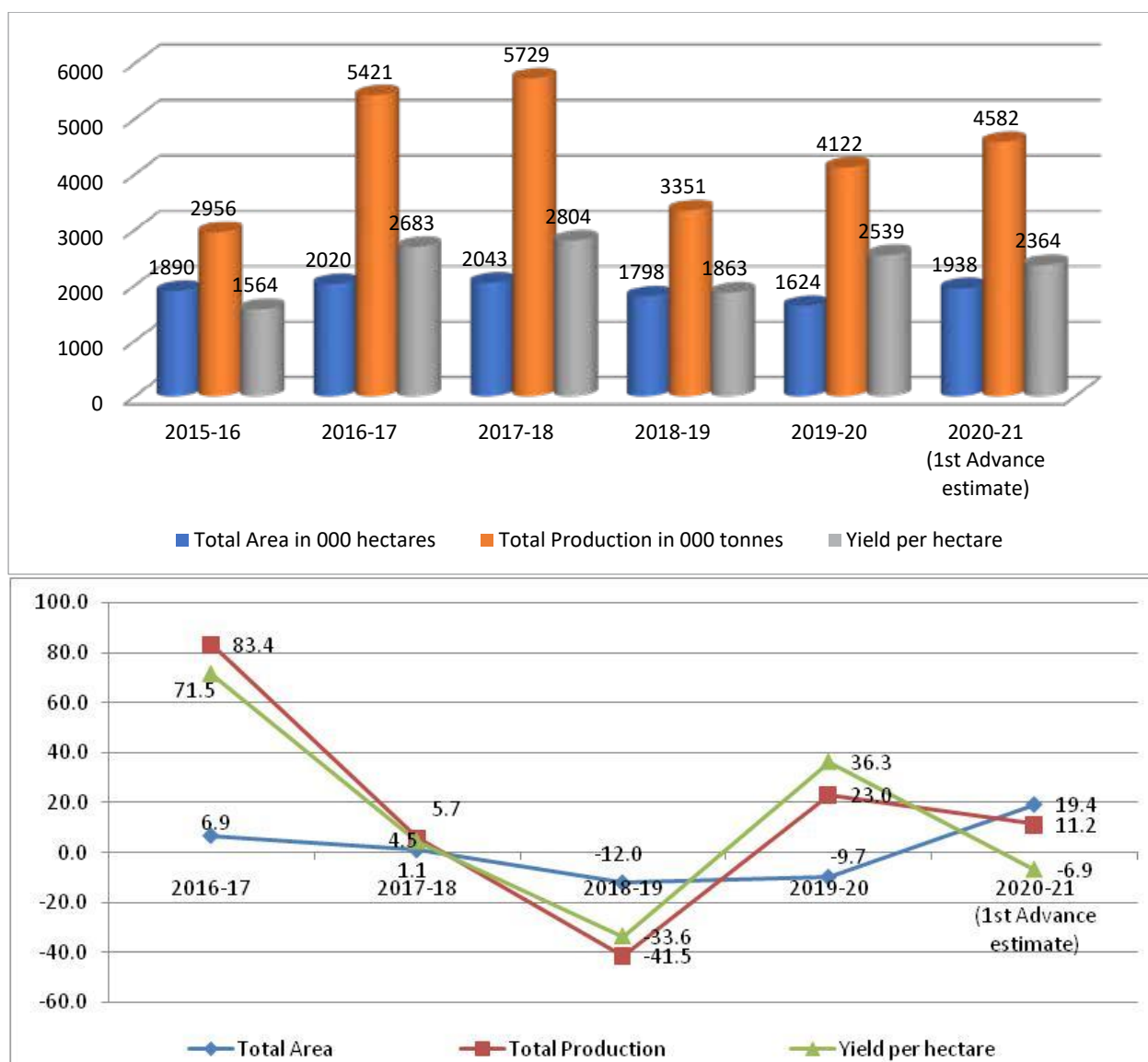
### Area, Production and Yield of Rabi Crops

The area, production and yield of Kharif crops depend on weather conditions. A good monsoon leads to expansion in area under cultivation, improvement in the yield rate and a bumper harvest. After a bad monsoon in 2015-16, when the area, production and yield of Kharif crop declined sharply, the state received a good monsoon consecutively in 2016-17 and 2017-18. As a result, the area, production and yield of the kharif crops increased sharply. The state recorded a bumper harvest of 5729 thousand tonnes of kharif crop in the year 2017-18. A bad monsoon in the subsequent year caused a sharp contraction in area, production and yield of these crops in 2018-19. They, however, have started recovering since then.

The area, production and yield of Rabi crops have followed the same trend as those of the Kharif crops.

A good monsoon along with winter rains causes expansion in all the three while a bad weather causes contraction. Just like the Kharif crops, the year 2015-16 saw a bad monsoon and shrinkage in area under Rabi crops and recorded a fall in their production and yield. Good monsoon in the subsequent two years i.e. 2016-17 and 2017-18, caused a sharp increase in the area, production and yield of the Rabi crops. The state recorded a bumper harvest of 489 thousand tonnes of Rabi crops in the year 2017-18. A bad monsoon in the year 2018-19 caused a sharp contraction in area, production and yield of these crops. They, however, have recovered in 2019-20. The area, production and yield this year increased by about 31 per cent, 45 per cent and 11 per cent, respectively.

**Figure 6.4: Area, Production and Yield of Kharif Crops**



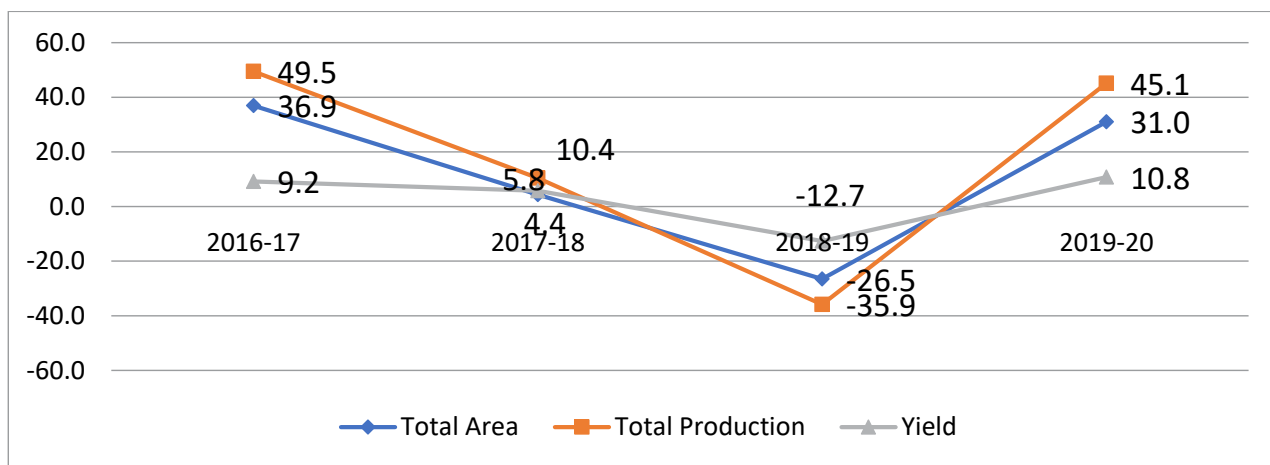
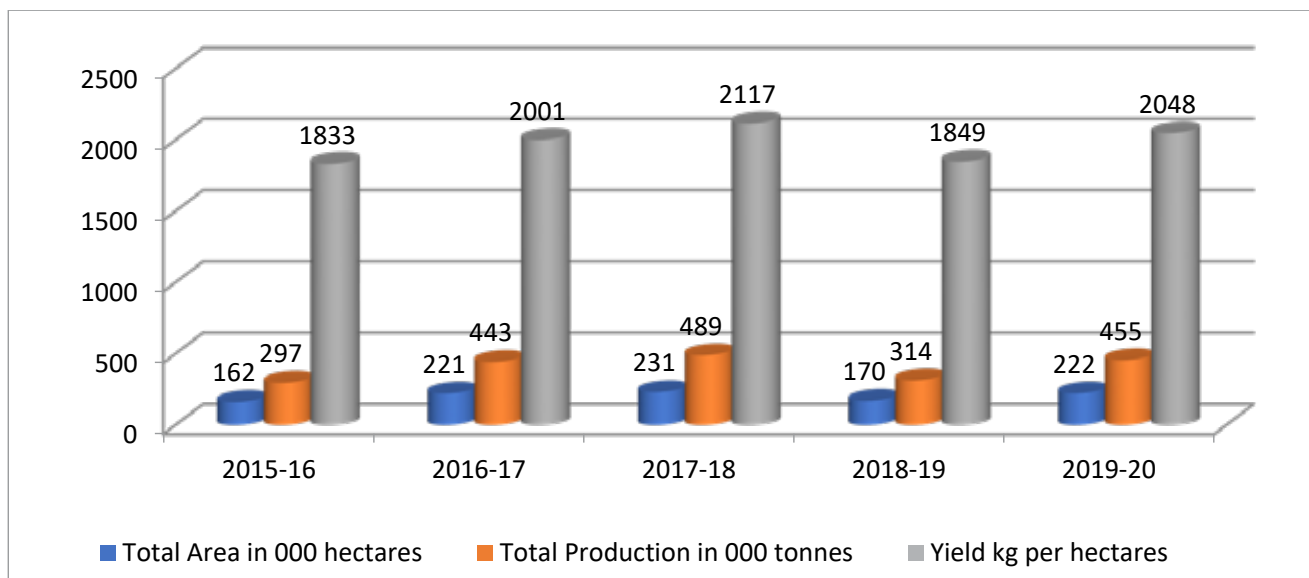
**Table 6.4: Area, Production and Yield of Rabi Crops**

Area-000' hectares, Production in 000' tonnes, Yield in Kg/Hectare

Financial Year	Total Area	Total Production	Yield
2015-16	161.724	296.507	1833
2016-17	221.444	443.159	2001
2017-18	231.096	489.330	2117
2018-19	169.791	313.879	1849
2019-20	222.424	455.444	2048

Source: The Directorate of Agriculture, Government of Jharkhand

Figure 6.5 : Area, Production and Yield of Kharif Crops



**Area**

In a normal year Rabi crops are grown on about 16 per cent of the net sown area of the state. Wheat and gram are the two important Rabi crops grown in the state. They together occupy more than 90 per cent of the total cultivated area of the Rabi crops. In order to make the state self sufficient in food grains the coverage of area under the cultivation of Rabi crops must be increased. The major constraints in the area cultivated with Rabi crops are water scarcity, low soil fertility and open grazing during the Rabi season.

**Cropping Intensity**

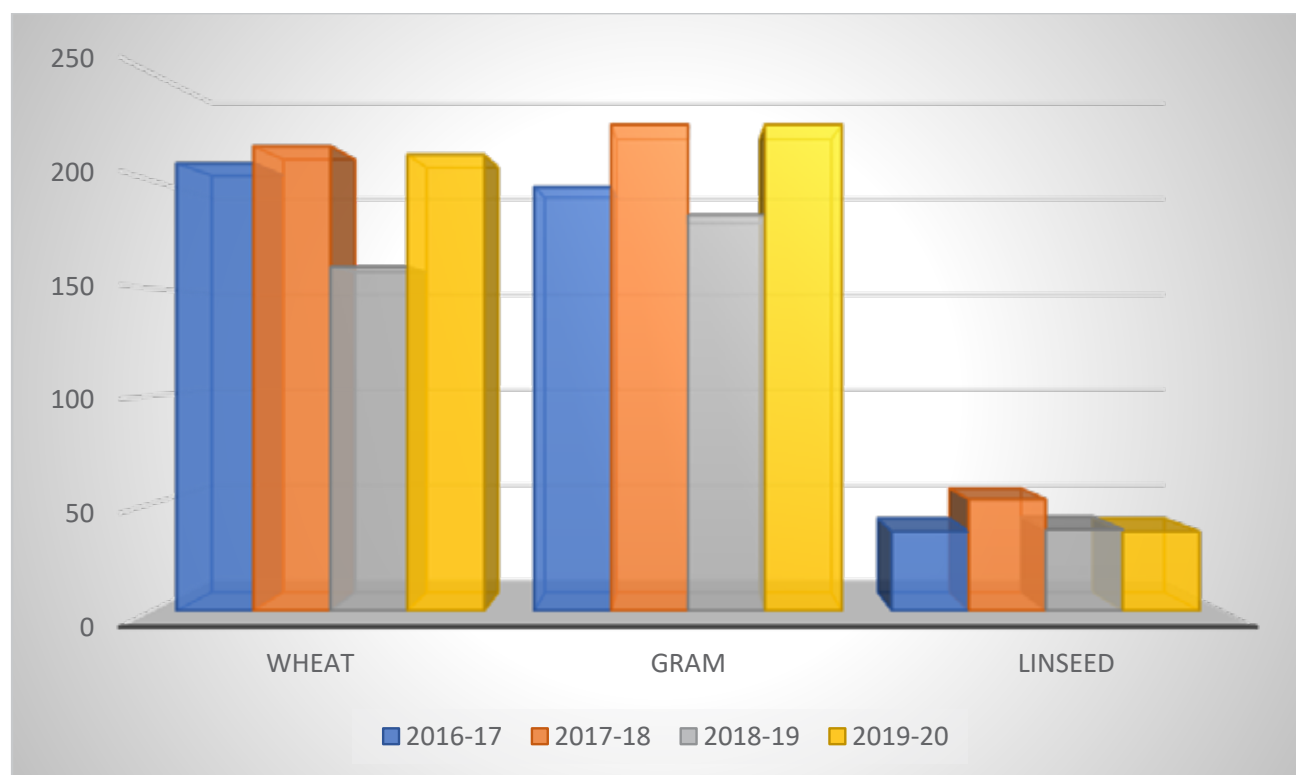
The gross cropped area in the state has increased over the years rising from 1672 thousand hectares in 2013-14 to 2045 thousand hectares in 2016-17. The net sown area

has also increased over the years registering a CAGR of around 7 per cent between 2013-14 and 2016-17. The cropping-intensity has shown a persistent improvement over the years as presented in the Table 6.5 :

Table 6.5: Cropping-Intensity in Jharkhand

Year	Gross Cropped Area (000' hectares)	Net Sown Area (000' hectares)	Cropping Intensity (%)
2013-14	1672	1384	120.8
2014-15	1554	1385	112.2
2015-16	1812	1386	130.7
2016-17	2045	1451	140.9

Source: RBI Handbook of Statistics on Indian States

**Figure 6.6: Trends in Area under Rabi Crops**


Source: All India Crop Situation Data, DES, GOI and Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

### Operational Holdings

Undoubtedly land is indispensable for cultivation. Despite this, the distribution of land holdings in the state is highly skewed with almost 70 per cent of the holdings being marginal in nature, i.e. less than 1 hectare in size. Collectively small and marginal holdings account for around 85 per cent of the total holdings. Only 10 per cent of the holdings are semi-medium (2-4 hectares)

and 5 per cent are medium (4-10 hectares) in size. Less than 1 per cent of the holdings are large, i.e. greater than 10 hectares. The smaller size of the holdings makes the application of mechanised farming non-lucrative in nature and hence may also be one of the reasons for the non-realization of the full potential of the productivity of land in the state.

**Table 6.6: Distribution of Landholdings (in hectares) in Jharkhand**

Type of Holding	No. of Operational Holdings as per Size	Area of Operational Holdings as per Size Group	Average Size of Holdings as per Size Group
Marginal	1961615	754009.2	0.38
Small	418684	569485.3	1.36
Semi- Medium	277306	755488.3	2.72
Medium	125514	707844.4	5.64
Large	19827	303906.9	15.33
All Holdings	2802946	3090734	1.1

Source: Agricultural Census 2015-16, MoAFW, GOI.

**Irrigation**

Jharkhand has made considerable progress in developing the irrigation-potential of the state. The gross irrigated area in the state has increased from 238 thousand hectares in 2013-14 to 310 thousand hectares in 2016-17. The irrigation-potential created in the state under

different programmes stands at 10,00,839 hectares. Of the total potential created, the contribution of the total major and medium irrigation-schemes stands at 38 per cent and that of minor irrigation-schemes at 62 per cent as presented in table 6.8.

**Table 6.7: Gross Irrigated Area as percentage of Gross Cropped-Area**

Year	Gross Cropped-Area (000' hectares)	Gross irrigated Area (000' hectares)	GIA/GCA (%)
2013-14	1672	238	14
2014-15	1554	221	14
2015-16	1812	235	12
2016-17	2045	310	15

Source: RBI Handbook of Statistics on Indian States

**Box 6.1**

**Major Irrigation Initiatives in the State**

The river-closure of the Punasi Reservoir Project in Deoghar district is almost complete. Water is being stored in the current monsoon season. The total length of the Punasi Main Canal is 72 kilometers. Of which the construction uptill 51 kilometers has been completed. The remaining work of spillway and branch canals is under progress. The target is to complete the work by 2021-22. This project will provide irrigation facilities in 24290 hectares.

Under the Major and Medium Irrigation Schemes, after completing the intake-structure and tunnel of the Konar Irrigation Project, water is being supplied to the main branch canal and irrigation-facility is being provided through direct outlets. The completion of the Konar Irrigation Project, shall facilitate in irrigating 62,895 ha in the districts of Hazaribagh, Giridih and Koderma.

The D.P.R. of 26 new irrigation schemes is being prepared with the consultancy-services of the Central Water Commission.

The work of extension, renovation and modernization of 71 completed Major and Medium Irrigation Schemes have been taken up to restore about 1,12,754 hectares lost irrigation-potential. So far 27 extension, renovation and modernization schemes have been completed at the cost of Rs. 716.29 crores. Also, 42,639 hectares of irrigation-potential has been restored.

An additional 8150 hectares of irrigation-potential has been created by completing 72 Check Dam Schemes under the State-Plan.

An additional 896 hectares of irrigation-potential has been created by completing 7 Lift Irrigation Schemes under the Minor Sector.

An additional 2533 hectares of irrigation-potential has been created by completing 23 Weir Schemes under the Minor Sector.

By completing the restoration work of 199 Minor Irrigation Schemes like Ahar/ Talab etc., an irrigation potential of 11308 hectares has been restored.

The Command-Area-Development work of Mayurakshi Reservoir Scheme and Kanchi Irrigation is under progress. This will improve the efficiency of irrigation and will help in providing *HAR KHET KO PANI*.

**Table 6.8: Irrigation Potential in Jharkhand**

Sl. No.	Type of Scheme	Nos.	Irrigation Potential created (in ha.)
1	Major Irrigation Scheme	4	1,72,600
2	Medium Irrigation Schemes	105	2,08,640
Total Number of Major and Medium Irrigation Schemes		109	3,81,240
Minor Irrigation Schemes			
1	By Surface Water Schemes	53079	4,37,874
2	Ground Water Schemes	1,42,547	1,81,725
Total Number of Minor Irrigation Schemes		1,95,626	6,19,599
Grand Total (Major, Medium and Minor Irrigation Schemes)		1,95,735	10,00,839

Source: Water Resource Department, GoJ

### Fertilizers

The use of fertilizer is considered to be an important factor in contributing towards improved productivity. The use of chemical fertilizers has increased in the state. The trend in the consumption of different types of fertilisers in Jharkhand is presented in tables 11 and 12. Considering the consumption of fertilizers, the use of urea during the Kharif-season has increased by 9 per cent from 150811.600 tonnes in 2019-20 to 164639.880 tonnes in 2020-21 and has fallen by 11 per cent during the Rabi season between 2018-19 and 2019-20. The consumption of DAP has increased by 15 per cent during

the Kharif season between 2019-20 and 2020-21 and by 12 per cent during the Rabi season between 2018-19 and 2019-20. The consumption of NPKS has fallen between 2015-16 and 2020-21. Urea remains the most important fertilizer being consumed with its share being the largest (around 63 per cent) in 2020-21 followed by DAP (28 per cent) and NPKS (8 per cent). The consumption of compost fertilizer has also increased in the recent years with its consumption rising from 2486 tonnes in 2017-18 to 10631.25 tonnes in 2019-20.

**Table 6.9: Consumption of Fertiliser (MT) during the Kharif Season**

Season/Year	UREA	DAP	NPKS	MOP	Total
2015-16	145200.00	46702.00	26700.000	2671.000	221273.000
2016-17	140433.750	34683.500	7790.000	1191.700	184098.950
2017-18	138815.750	62200.900	8385.300	2688.250	212090.200
2018-19	116386.720	63825.300	22675.000	4307.200	207194.220
2019-20	150811.600	63319.350	21609.300	4785.400	240525.650
2020-21	164639.880	72787.200	21027.650	4809.400	263264.130

Source: The Directorate of Agriculture, Government of Jharkhand

**Table 6.10: Consumption of fertilisers (MT) during the Rabi Season**

Year	UREA	DAP	NPKS	MOP	Total
2015-16	74810.000	8918.000	7503.000	311.000	91542.000



Year	UREA	DAP	NPKS	MOP	Total
2016-17	56548.250	25180.650	6873.400	1191.700	89794.000
2017-18	83232.400	19769.950	5928.550	509.900	109440.800
2018-19	112981.680	20061.950	18564.750	360.000	151968.380
2019-20	100392.530	22440.800	13044.100	19.900	135897.330

Source: The Directorate of Agriculture, Government of Jharkhand

**Table 6.11: The Consumption of Compost Fertilizer (MT) in the State**

Season/Year	Compost Fertilizer
2017-18	2486.000
2018-19	5825.400
2019-20	10631.250

Source: The Directorate of Agriculture, Government of Jharkhand

### Agricultural Finance

Considering the fact that a large number of farmers in the state are small and marginal by nature, timely availability of agricultural credit at a reasonable rate is something indispensable for agricultural growth. Moreover, agricultural credit serves the purpose of making institutional finance available that can be used for making investments in agricultural machinery, seeds and adoption of technology that will further enhance production and productivity.

Agriculture is a priority sector for the banks in advancing credits. The flow of credit to this sector has grown at an

average annual rate of about 7 per cent between 2014-15 and 2019-20. The total credit advanced to this sector was Rs. 11,746 crores in 2014-15. It has grown to 16,230 crores in 2019-20.

The Kisan Credit Card (KCC) scheme launched in 2012 is another scheme in place to extend agricultural credit. During 2020-21 (up to September, 2020) about Rs. 1,586 crores were disbursed through the KCC. The total outstanding amount by 30th September in this account was Rs. 6,709 crores. A total of 3,24,395 KCC accounts were disbursed and 13,77,920 accounts were outstanding by the end of September 2020.

**Table 6.12: Bank Category-Wise Status of KCC in Jharkhand (Amount in Crores)**

Type of Banks	Disbursement		Outstanding in KCC Accounts	
	During 2020-21		As on 30.09.2020	
	Account	Amount	Account	Amount
Public Sector Banks	1,41,435	573.68	9,21,652	4,407.56
Private Banks	510	6.51	62,933	311.73
Total	1,41,945	580.19	9,84,585	4,719.29
RRB	1,82,450	1,005.12	3,78,600	1,951.76
Co-operative Banks	104	0.46	14,735	38.51
Total	1,82,554	1,005.58	3,93,335	1,990.27
Grand Total	3,24,395	1,585.77	13,77,920	6,709.56

Source: 73rd round of SLBC, Jharkhand

All general KCC accounts have to be converted to Smart KCC accounts. These Smart KCC accounts will have Rupay Cards which can be used at ATMs and POS to promote digital transactions. As per the record of banks till 30th September 2020, applications for conversion to Rupay cards were applied for 11,63,077 eligible KCC accounts. Out of these 10,82,529 (95.78%) Rupay Debit Cards have already been issued.

### PM-KISAN Scheme

Till 4th November, 2020, 31.85 lakh farmers of Jharkhand were registered for the PM-KISAN Scheme. As per the dashboard of PM-KISAN scheme, the total number of beneficiaries of this scheme in the state are 29.62 lakhs in the third quarter of the current financial year.

### Major Agriculture Insurance Schemes

Given the fact that agriculture is subject to the vagaries of nature, it becomes imperative to have a robust risk-

mitigation and risk-management-instruments to support the sector against these unforeseen exigencies.

### Pradhan Mantri Fasal Bima Yojana

Based on the notion of one nation-one scheme, the Pradhan Mantri Fasal Bima Yojana was launched on 18th February 2016 by replacing two earlier schemes viz. National Agricultural Insurance Scheme and Modified National Agricultural Insurance Scheme. The scheme aims to reduce the premium burden on farmers and ensure an early settlement of crop-assurance-claim for the full insured sum. All farmers including share croppers and tenant-growing-notified crops in the notified areas are eligible for coverage under this scheme. Table 6.13 below reflects the progress under the scheme upto Rabi 2018-19. As can be seen from the table, around 2.5 lakh farmers have benefited from the scheme since its inception in 2016 till the Rabi of 2018-19. The area insured so far has reached almost 13 lakh hectares.

**Table 6.13: Progress under Pradhan Mantri Fasal Bima Yojana (PMFBY) - Cumulative up to Rabi 2018-19 (Rs. in lakh)**

Year	Number of Farmers Covered	Area Insured (in Ha)	Sum Insured	Farmers' Premium	GOI Premium	State Government Premium	Gross Premium	Claims Reported	Claims Paid	Number of Farmers Benefited
2018	3365274	1292800	698461.1	11729.37	37225.68	39049.86	88004.91	50410.01	9114.56	251170

Source: Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

Considering the coverage of agricultural insurance scheme in the state, it is overwhelming to observe that there has been a persistent increase in the proportion of the area insured since 2015-16. It was only in the years

2016-17 and 2017-18 when the proportion declined. The proportion of area insured stands at 6.31 lakh hectares (2018-19 figures) which is almost 35 per cent of the Gross Sown Area.

**Table 6.14: Crop Area insured under all the Insurance Schemes Area in Lakh Hectares**

Year	Gross Area Sown	Area Insured	% of Area Insured
2015-19	18.12	4.17	23.01
2016-17	18.12	3.72	20.53
2017-18	18.12	2.9	16.02
2018-19	18.12	6.31	34.82

Source: Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

### Storage and Warehouse

The storage-capacity in the state has improved over the years. The storage-capacity in the state as in March 2019 was 5.51 lakh metric tonnes. The cold storage-capacity

in the state as in March 2019, was more than 2 lakh metric tonnes.

**Table 6.15: Storage-Capacity in Lakh Metric Tonnes**

March, 2016	March, 2017	March, 2018	March, 2019
2.53	2.91	3.68	5.51

Source: Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

**Table 6.16: Cold Storage-Capacity (as on 31.3.2019)**

No. of Projects	Capacity (Metric Tonnes)
58	236680

Source: Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

The storage-capacity sanctioned under the Agricultural Marketing Scheme upto March, 2019 stands at 157316 metric tonnes which is an improvement by around 11 per cent since 2018. The number of godown-projects sanctioned under the scheme continues to increase from

24 in 2017 to 26 in 2019. The improvement in storage-capacity shall help check the wastage of agricultural-capacity thereby reducing losses and making agriculture more remunerative.

**Table 6.17: Storage-Capacity sanctioned under the Agricultural Marketing Infrastructure (AMI) Scheme**

Up to March 2017		Up to March 2018		Up to March 2019	
No. of Godown Projects Sanctioned	Storage-Capacity Sanctioned in MT	No. of Godown Projects Sanctioned	Storage Capacity Sanctioned in MT	No. of Godown Projects Sanctioned	Storage-Capacity Sanctioned in MT
24	119316	26	142316	26	157316

Source: Agricultural Statistics at a Glance 2019, DES, MoAFW, GOI

### Horticulture

The state may not be a leading producer of horticultural crops but the agro-climatic conditions provide ample scope for the production of horticultural crops, the full potential of which is yet to be realised. Since the shelf-life of horticultural crops is short, infrastructural facilities need to be developed to minimize wastage. At the same time facilities for value-addition in the form of food processing and the like can help the horticultural sector contribute a larger share in the state's GSDP. The

output of fruit-crops has increased persistently over the years registering a CAGR of around 5 per cent rising from around 961 thousand metric tonnes in 2015-16 to 1153 thousand metric tonnes in 2019-20. The output of vegetables has grown in the state at a CAGR of around 1.26 per cent between 2015-16 and 2019-20 rising from around 3374 thousand tonnes in 2015-16 to 3592 thousand tonnes in 2019-20.

**Table 6.18: Trends in Area, Production and Yield of Fruit-Crops in Jharkhand**

Area-000' hectares, Production in thousand metric tonnes, Yield in Kg/Hectare

Year	Area	Total Production of Fruit-Crops	Yield
2015-16	96.53	961.18	9033.13
2016-17	100.78	1047.96	9433.36

Year	Area	Total Production of Fruit-Crops	Yield
2017-18	104.30	1081.69	9408.37
2018-19	104.08	1118.36	9747.90
2019-20	105.317	1153.47	9935.81

Source: The Directorate of Agriculture, Government of Jharkhand

**Table 6.19: Area and Production of different Varieties of Vegetables (2015-16 to 2020-21)**

Area-000' hectares, Production in thousand metric tonnes, Yield in Kg/Hectare

Year	Area	Total Production of Vegetables	Yield
2015-16	264.21	3373.82	11584.27
2016-17	293.53	3370.00	10415.34
2017-18	289.20	3475.20	10901.28
2018-19	293.88	3507.31	10826.80
2019-20	302.56	3592.03	10770.21

Source: The Directorate of Agriculture, Government of Jharkhand

### Livestock

Livestock-wealth is considered an important source of livelihood and employment. It also serves as a shock absorber in case of failure of crops. The livestock-wealth in the state has declined over the years between 2007 and 2012. The total population of livestock in the state has declined from 18100 thousand in 2007 to around 18053 thousand in 2012 registering a decline of 26 per cent. While the population of cattle, buffaloes and goats in

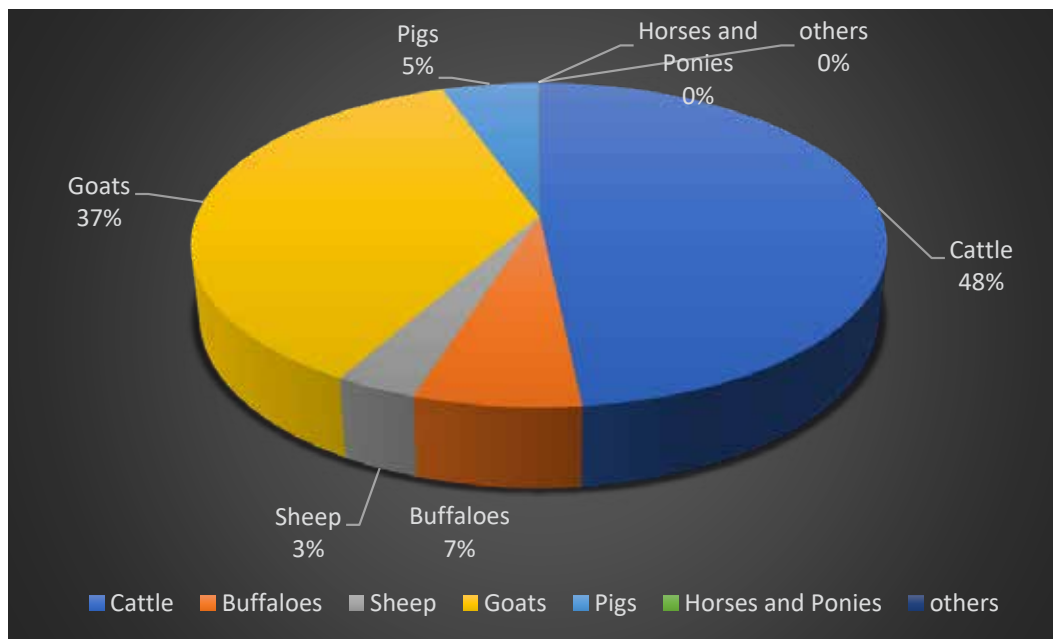
the state has fallen, the population of sheep, pigs, horses and ponies has risen. Of the total livestock-population, around 92 per cent constitute milch animals comprising 48.35 per cent cows, 7 per cent buffaloes, 36.45 per cent goats. The population of poultry has increased from 11231 thousand in 2007 to 13560 thousand in 2012 registering a growth of 21 per cent.

**Table 6.20: Total Livestock in 2007 and 2012 (in thousands)**

Livestock and Poultry	Livestock Census 2007	Livestock Census 2012	% Share in total Livestock (2012)	% Change from 2007
Cattle	8781.07	8730.08	48.35	-0.58
Buffaloes	1505.54	1185.94	6.56	-21.23
Sheep	483.34	582.93	3.22	20.60
Goats	6591.59	6581.45	36.45	-0.15
Pigs	732.48	962.37	5.33	31.38
Horses and Ponies	5.35	5.71	.031	6.72
Others	0.83	4.27	.023	414.45
Livestock	18100.20	18052.75	100	-0.26
Poultry	11231	13559.53	-	20.73

Source: Livestock Census 2007, 2012

**Figure 6.7: Distribution of Livestock**



Source: Livestock Census various issues

**Production of Livestock Products**

The output of various livestock-products has witnessed increasing trends over the years as can be seen from table below. The output of milk in the state stands at around 25 lakh metric tonnes in 2019-20 which is an increase of 13 per cent over what it was in 2018-19. The production of eggs in the state has also increased in the

state from 637.86 millions in 2018-19 to 692.81 millions in 2019-20, registering an improvement of 9 per cent. The output of meat has also increased in the state from 62.48 thousand tonnes in 2019-20 to 67.25 thousand tonnes in 2020-21 indicating an annual growth of around 8 per cent.

**Table 6.21: Production-Trends of Livestock Products**

Year	Milk (Lakh MT )	Eggs ( Million)	Meat (‘000MT)
2015-16	18.12	483.20	50.71
2016-17	18.94	510.04	54.73
2017-18	20.16	553.11	57.55
2018-19	21.83	637.86	
2019-20	24.72	692.81	62.48
2020-21	26.83 (expected)	-	67.25

Source: Department of Animal Husbandry & Fisheries, Govt. of Jharkhand

**Fisheries**

Although the state does not have much freshwater resources, the progress made in fish-production has been commendable. The CAGR in fish production has been 18 per cent between 2015-16 and 2019-20. The output of fish has increased from 115 thousand tonnes in 2015-16 to 223 thousand tonnes in 2019-20. Similar

trends have been registered in fish-seed growers and fish-seed-production. The number of fish-seed growers has increased from 4183 in 2015-16 to 7929 in 2019-20 and fish-seed-production has increased from around 162 crores in 2015-16 to 1057 crores in 2019-20.

**Table 6.22: Fish Production, Fish-Seed Growers and Fish-seeds-Production from 2012-13 to 2018-19**

Year	Fish Production ('000MT)	Fish Seed Growers (no.)	Fish Seed Production (in crore)
2015-16	115	4183	161.96
2016-17	145	4674	415.04
2017-18	190	9567	1033.49
2018-19	208	8066	1036.30
2019-20	223	7929	1056.92
2020-21	102 (up to Sept 30)	-	5544.88 (up to Sept)

Source: The Directorate of Fisheries, Government of Jharkhand

### Income and Indebtedness of Agricultural Households

The status of the income of agricultural households in Jharkhand reveals that the average monthly income for agricultural households in the state is relatively low in states like Punjab (23133) and Haryana (18496) as has been revealed in the NABARD All India Rural Financial Inclusion Survey (NAFIS) Report 2016-17. The incidence of indebtedness reveals that around 34 per cent of the agricultural households in the state remain indebted and the average outstanding loan amount increases with the increasing size of holdings as can be seen from figure 6.23 below. The average amount of loan outstanding

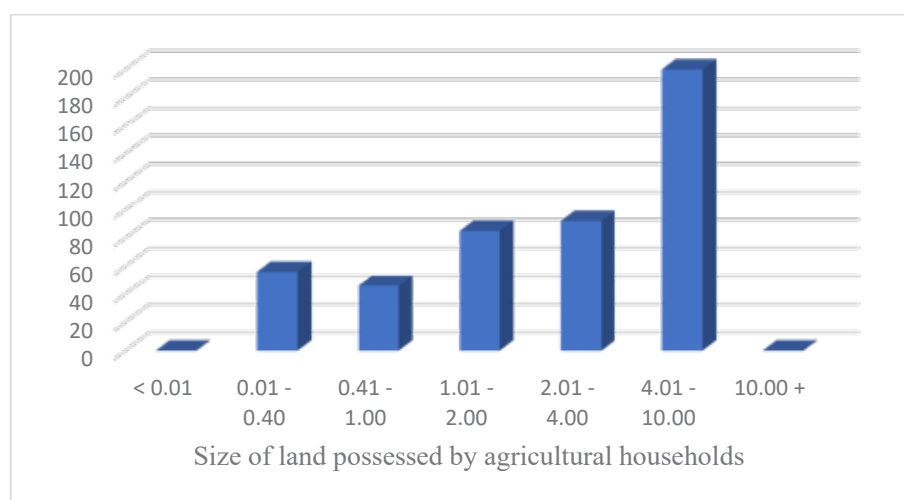
for a household possessing 0.01-0.40 hectares of land is Rs, 5,600 followed by Rs. 4600 for 0.41-1 hectares. The average amount of loan outstanding stands at Rs 8500 for those possessing land size of 1.01-2 hectares and increases to Rs 9200 for those with land of the size of 2.01-4 hectares. The largest average loan amount which is outstanding is Rs 20,000 for households possessing 4.01-10 hectares of land. The average outstanding loan increases with the increasing size of land for the obvious reason that those possessing a larger size of land have larger loan-repayment capacity.

**Table 6.23: Status of Income and Indebtedness of Agricultural Households in Jharkhand**

State Country	Average Monthly Income of Agricultural Households (In Rupees per month per household)	Incidence of Indebtedness among Households by States (in percentage)
India	8931	34
Jharkhand	6991	47

Source: NABARD All India Financial Inclusion Survey, 2016-17

**Figure 6.8: Average amount of outstanding loan (Rs '00) per agricultural household by size of the land possessed**



## Schemes

### Jharkhand Rajya Fasal Rahat Yojana and Jharkhand Krishi Rin Maafi Yojana

In the financial year 2020-21 two new schemes have been launched to boost the agricultural sector. In place of Pradhan Mantri Fasal Bima Yojana a new scheme called Jharkhand Rajya Fasal Rahat Yojana has been launched with a total outlay of rupees 100 crores. The government of Jharkhand has launched another scheme named Jharkhand Krishi Rin Maafi Yojana which is a loan-waiver scheme with a total outlay of rupees 2000 crores.

### National Mission on Agricultural Extension and Technology

The National Mission on Agricultural Extension and Technology aims at the adoption and promotion of technology, critical inputs and improved agronomic practices in the field of agriculture. The scheme has four sub-schemes : Sub Mission on Agricultural Extension (SMAE), Sub-Mission on Seed and Planting Material (SMSP), Sub Mission on Agricultural Mechanization (SMAM) and Sub Mission on Plant Protection and Plant Quarantine (SMPP).

### PM-Kisan

PMKisan is a central sector scheme with 100 per cent funding from the centre which is in operation since December, 2018. So far, 32 lakh farmers have been registered under the scheme and around 1557 crores have been released.

### Other Schemes

- The government has entered into an MoU with the National Dairy Development Board to further

strengthen the Jharkhand Milk Federation. Moreover, three new dairy plants with a capacity of 50K litres per day are already set up at Deoghar, Sahebganj and Palamu and are in an advanced stage of completion.

- GMP/GLP labs for livestock vaccine-production worth Rs. 28 crores is under progress at Kanke, Ranchi.
- Considering the need for APMC reforms, a new APMC Act draft proposal is ready and will be put before the next cabinet.
- Provision of EoDB-facility for Seed/Pesticides/Fertilizers/Coop licenses through Single window system.

### Conclusion

Considering the fact that a well-developed Agriculture and Allied Sector is indispensable for growth of an economy with a large rural population. Deriving its livelihood from the sector, it is imperative that the state expedites the process of its all-round development. Jharkhand has made considerable progress in improving production and yield of both the Kharif and the Rabi crops along with horticultural crops and vegetables. However, there exists immense scope to harness the state's potential by improving productivity of the sector. The irrigation potential in the state has persistently improved along with storage facilities and the status of credit is being extended. The government has also launched different schemes like Jharkhand Rajya Fasal Rahat Yojana and Jharkhand Krishi Rin Maafi Yojana for agricultural development along with schemes for Allied sectors like dairy and livestock-development.

## Box 6.2 : Atmanirbhar Bharat Scheme

### Atmanirbhar Bharat Yojana and the Agricultural Sector

In the wake of the COVID-19 crisis, the government of India came up with its ambitious and holistic programme of Atmanirbhar Bharat Abhiyan or Self Reliant Movement in May 2020 to address the challenges posed by the pandemic. The five pillars of the programme include -Economy, Infrastructure, System, Vibrant Demography and Demand. A couple of measures, both immediate and long term for the agricultural and the allied sector have also been announced as part of the programme which is presented below-

#### 1.Provision of Rs 30,000 crores Additional Emergency Working Capital for farmers through NABARD

- \* NABARD will extend additional re-finance support of Rs 30,000 crores over and above the Rs 90,000 crores already being provided by NABARD for meeting crop-loan-requirement of the Rural Cooperative Banks and RRBs.

#### 2. Rs 2 lakh crore-credit boost to 2.5 crore farmers under the Kisan Credit Card Scheme

- \* A special drive to provide concessional credit to PM-KISAN beneficiaries through Kisan Credit Cards.
- \* Fisherman and Animal Husbandry Farmers will also be included in this drive.

#### 3. Front-loaded Rs 2000 paid to farmers under the existing PM-KISAN shall benefit 8.7 crore farmers.

### Dairy Development

- \* A new scheme to provide interest-subvention @2 per cent per annum to dairy cooperatives for 2020-21.
- \* Additional 2 per cent p.a. interest-subvention on prompt payment/interest servicing.
- \* This scheme will unlock 5000 Cr of additional liquidity, benefiting 2 Cr farmers.

### Fisheries

- \* Validity of Sanitary Import Permits (SIPs) for the import of Shrimp Broodstock was extended by 3 months
- \* Condoned delay up to 1 month in the arrival of Brood stock consignments
- \* Rebooking of Quarantine cubicles for cancelled consignments with no additional charges was allowed
- \* Verification of documents and grant of NOC for Quarantine was relaxed from 7 days to 3 days
- \* Registration of 242 Registered Shrimp hatcheries and Nauplii Rearing Hatcheries expiring on 31.03.2020 was extended for 3 months.
- \* Operations of Marine Capture Fisheries and Aquaculture were relaxed to cover Inland Fisheries

The long-term measures aim at strengthening the infrastructural logistics.

#### **Rs. 1 lakh crore for Agri Infrastructural Fund for farm-gate infrastructure for farmers**

To address the issue of the lack of adequate cold chain and post harvest management infrastructure in the vicinity of farm-gate an Agri Infrastructure Fund has been created.

- \* Financing facility of Rs. 1,00,000 crores for funding Agricultural Infrastructure Projects at farm-gate and aggregation points (Primary Agricultural Cooperative Societies, Farmers-Producer-Organizations, Agricultural entrepreneurs, Start-ups, etc.)
- \* Impetus for the development of farm-gate and aggregation point, affordable and financially viable post-harvest management infrastructure

#### **Rs. 10,000 crores scheme for the Formalization of Micro Food Enterprises (MFE)**

A slew of measures facilitating technical upgradation under the Formalization of Micro Food Enterprises scheme have been announced to address issues for value-addition in agriculture.

- \* A Scheme has been launched to help 2 lakh MFEs attain technical upgradation to attain FSSAI food standards, build brands and facilitate marketing.
- \* All the existing micro food enterprises, Farmer Producer Organizations, Self Help Groups and Cooperatives to be supported
- \* Cluster based approach (e.g. Mango in UP, Kesar in Jammu and Kashmir, Bamboo shoots in the North-East, Chilli in Andhra Pradesh, Tapioca in Tamil Nadu etc.)
- \* The Scheme adopts One District One Product (ODOP) approach to reap the benefits of scale in terms of procurement of inputs, availing of common services and marketing of products
- \* Provision of support for branding and marketing is limited to 50 per cent of the total expenditure.
- \* Credit linked grant @35 per cent to FPOs, SHGs, cooperatives, state-owned agencies and private entrepreneurs for the development of common infrastructure including common processing facility, lab, warehouse, cold storage, packaging and incubation centre.
- \* Provision of seed-capital-grant to SHGs

#### **Rs. 20,000 crores for fishermen through Pradhan Mantri Matsya Sampada Yojana (PMMSY)**

The PMMSY aims towards integrated, sustainable, inclusive development of marine and inland fisheries.

- \* Rs. 11,000 Cr for the activities in marine, inland fisheries and aquaculture



- \* Rs. 9000 Cr for infrastructure - fishing harbours, cold chain, markets etc.
- \* Cage culture, seaweed farming, ornamental fisheries as well as new fishing vessels, traceability, laboratory-network etc. will be the key activities.
- \* Provisions of Ban Period Support to fishermen (during the period fishing is not permitted), personal and boat-insurance will lead to additional fish-production of 70 lakh tonnes over 5 years.
- \* Employment to over 55 lakh persons; double exports upto Rs 1,00,000 cr.

### **National Animal Disease Control Programme**

- \* National Animal Disease Control Programme for Foot-and-Mouth Disease (FMD) and Brucellosis has been launched with a total outlay of Rs. 13,343 crores.
- \* It will ensure hundred per cent vaccination of cattle, buffalo, sheep, goat and pig population (total 53 crore animals) for Foot-and-Mouth Disease (FMD) and for brucellosis.

### **Animal Husbandry Infrastructure Development Fund - Rs. 15,000 crore**

The scheme aims to support private investment for dairy-processing, value addition and cattle-feed infrastructure

- \* An Animal Husbandry Infrastructure Development Fund - Rs. 15,000 crore will be set up.
- \* Incentives for establishing plants for the export of niche products.

### **Promotion of Herbal Cultivation worth Rs. 4000 crores**

The National Medicinal Plants Board (NMPB) has supported 2.25 lac hectare-area for the cultivation of medicinal plants

- \* 10,00,000 hectare will be covered for herbal cultivation in the next two years with an outlay of Rs. 4000 crores enhancing income by Rs. 5000 crores for farmers
- \* Network of regional mandis for medicinal plants will be strengthened.
- \* NMPB will bring 800 hectare-area by developing a corridor of medicinal plants along the banks of the Ganga.

### **Beekeeping initiatives –Rs 500 crores**

- \* An outlay of Rs. 500 crores for the infrastructural development related to Integrated Beekeeping Development Centres, collection, marketing and storage centres, post harvest and value addition-facilities etc.

### **Top to Total Scheme- Rs 500 crores**

- \* Operation Greens to be extended on pilot-basis from Tomatoes, Onion and Potatoes (TOP) to all fruits and vegetables (TOTAL) and will be expanded later. The scheme includes 50 per cent subsidy on the transportation from surplus to deficient markets and 50 per cent subsidy on storage, including cold storages.

### **Benefits for Jharkhand**

The provision of Agri Infrastructure Fund shall help check wastage and promote better realisation of proceeds from agriculture. Moreover, schemes meant for fisheries and dairy development shall help boost the alternate livelihood-options in the state. Being rich in forest resources, the state shall gain from herbal cultivation and bee-keeping initiatives. Additionally, with untapped potential in the horticultural sector the state will benefit from the Top to Total scheme.

### Box 6.3 : Farm Bills, 2020

The Government of India promulgated three ordinances viz., the Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Ordinance, 2020, the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance, 2020 and the Essential Commodities (Amendment) Ordinance, 2020 on June 5th 2020 in the parliament of which the first two became an Act on September 24, 2020 and the last on September 26, 2020.

#### **The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020**

- \* Allows intra-state and inter-state trade of farmers' produce beyond the physical premises of APMC markets and the state governments are prohibited from levying any market fee, cess or levy outside the APMC areas.
- \* Such trade can be conducted in an 'outside trade area', i.e., in any place of production, collection, and aggregation of farmers' produce including: (i) farm gates, (ii) factory premises, (iii) warehouses, (iv) silos, and (v) cold storages.
- \* It permits electronic trading of scheduled farmers' produce (agricultural produce regulated under any state APMC Act) in the specified trade-area and allows entities as (i) companies, partnership-firms or registered societies, having a permanent account number under the Income Tax Act, 1961 or any other document notified by the central government and (ii) a farmer-producer-organisation or agricultural cooperative society to establish and operate such platforms.

#### **The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020**

- \* It aims to create a framework for contract-farming through an agreement between a farmer and a buyer prior to the production or rearing of any farm-produce. The minimum period of such contract farming crop-season or one production-cycle of livestock, as the case may be, and the maximum period shall be five years unless the production-cycle is for more than five years.
- \* The farmers will have complete discretion in determining the prices of their produce and will receive payment within a maximum of three days.
- \* As for the prices subjected to variation, a guaranteed price for the produce and a clear reference for any additional amount above the guaranteed price must be specified in the agreement. Further, the process of price-determination must be mentioned in the agreement.
- \* It allows for a three-level dispute-settlement-mechanism in the case of any friction arising between the contracting parties at different levels viz., the Conciliation Board, Sub-Divisional Magistrate and Appellate Authority.
- \* It has been proposed to create 10,000 Farmers' Producer Organizations in order to bring together small farmers and work together to enforce a remunerative price-mechanism for farm produce.

#### **The Essential Commodities (Amendment) Act, 2020**

- \* It amends the age-old original Act of 1955 and allows the central government to regulate the supply of only certain food items under extraordinary circumstances (such as war and famine).

- \* Stock limits may be imposed on agricultural produce only if there is a steep price rise - i.e. a hundred percent increase in the retail price of horticultural produce or fifty percent increase in the retail price of non-perishable agricultural foodstuffs, which implies that it cannot stop a supermarket chain or any other retailer from hoarding – unless there is a cent percent increase in prices of perishable goods or fifty per cent increase in the prices of non-perishable goods.
- \* The new Essential Commodities Act removes foodstuff such as cereals, pulses, potatoes, onions, edible oilseeds and oils from the list of essential commodities, unless there are dire circumstances like a war or famine or an “extraordinary” price-rise.

### **Impact in Jharkhand**

The idea of farmers being able to sell their produce at farm-gates, cold storages, warehouses, processing units etc. without paying any fees or cess in addition to APMC shall help check wastage, especially of perishable items which have shorter shelf-life. However, the bill remains silent on the continuation of MSP which is disturbing. Absence of any norm on the minimum prices would leave the farmers at the mercy of the buyers with little or no bargaining power and sale at take-away-prices especially in the case of perishables. Although the Bill shall help large number of farmers who will be able to develop favourable terms from buyers, the bill has less to offer to most of the farmers in Jharkhand who are marginal. This goes along with the fact that the absence of a regulator, cartelization of buyers and inferior terms for small farmers will again be difficult to prevent. Contract-farming is aimed to induce certainty in the realisation of proceeds from the sale of farmer's produce. However, there are apprehensions about contract-farming that it would invite the interests of private players who shall be more interested in non-food grains resulting in the diversion of acreage from food grains to non-food grains which shall consequently threaten the food-security of the masses. The idea that the supply of the essentials shall be controlled only under extraordinary times also leaves room for hoarding and black marketing.

# Chapter 7

## Food Security and Nutrition Security





Food-security ensures the availability and the access of food to all people whereas; Nutrition-security is about a community's access to essential nutrients, not just calories. Though food-security is central in achieving nutrition-security, other issues like safe drinking water, availability of micro nutrients and prevention and timely treatment of diarrhoea and other diseases are also essential in ensuring it.

In Jharkhand, PDS plays a very crucial role in ensuring food security to its people, especially to the needy and deprived, through smooth distribution of food-grains. There are about 56.85 lakhs cardholders under PHH and AAY which cover more than 2.61 crores family members. Most of these ration cards have been Aadhar seeded, bank A/c-seeded and mobile number-seeded. Between 1st April 2020 and 11th January 2021, more than 10.97 lakh tonnes of rice, 14.65 lakh tonnes of wheat, 46.7 thousand tonnes of salt, 59 thousand tonnes of sugar and 5.81 crore litres of kerosene have been distributed under the regular distribution-schemes. Similarly, more than 8.38 lakh tonnes of rice, 64 thousand tonnes of wheat, 25 thousand tonnes of chana and 14 thousand tonnes of dal have also been distributed between the months of May 2020 and November 2020 in the state under PMGKAY. Food packets containing 2 kgs of Chura (flattened rice), 500gm. of Gur (jaggery) and 500gm of Chana (gram) amounting to Rs. 110/- per packet were distributed to needy people during COVID- 19.

Jharkhand has high prevalence malnutrition especially among children and mothers. Various activities have been undertaken in Jharkhand to improve child and maternal health under POSHAN ABHIYAAN during 2019-20 and 2020-21. A large number of children have been immunized between April, 2020 and September, 2021. A large number of children of 9 months to 5 years have been administered Vitamin A supplements also.

The present chapter has two sections. Section one deals with the progress made under food-security while, section two evaluates the status of nutrition-security in the state.

## **I. Food Security**

### **Food Grains Management**

The Jharkhand State Food and Civil Supplies Corporation (JSFC) plays a crucial role in the management of food grains in the state. It lifts food grains from the Food Corporation of India (FCI) and depots and delivers to

PDS/fair price shops for the distribution to beneficiaries. However, the procurement of food grains is done by the FCI, state agencies and some private parties in the state. The procurement of food grains is done through the Centralized Procurement System and the Decentralized Procurement System. Under the Centralized Procurement System, the procurement of food grains in the Central Pool are undertaken either by the FCI directly or the state government-agencies procure the food grains and handover the stocks to the FCI for storage and subsequent issue against the GOI allocations in the same state or for movement of surplus stocks to other states. The cost of food grains procured by state agencies is reimbursed by FCI as soon as the stocks are delivered to FCI as per cost-sheets issued by the GOI. The scheme of decentralized-procurement of food grains was introduced by the Government in 1997-98 with a view to enhancing the efficiency of procurement and PDS and encouraging local procurement to the maximum extent thereby extending the benefits of MSP to local farmers as well saving on transit-costs. This also enables the procurement of food grains more suited to the local taste. This process of procurement through the decentralised scheme applies to rice in the six districts of Jharkhand too.

### **Production and Procurement of Rice/Wheat in Jharkhand**

Jharkhand is among the major rice-consumer states in India. Table 7.1 shows the production and procurement of rice under the central pool during the last five Crop years/Kharif Marketing Seasons (KMS). In 2015-16 the production of rice was 28.82 lakh tonnes and it increased to 38.42 lakh tonnes in 2016-17 and further to 40.78 lakh tonnes in 2017-18. However, there was a decline in production in 2018-19 and again a recovery started in 2019-20. Keeping in mind the dependence of rice-production on monsoons and other natural factors, a fluctuation in its production is a general phenomenon.

The procurement of rice through the decentralised scheme is operational in the six districts of Jharkhand by the local partners and this has certainly improved the overall procurement in the state. As per Table 7.1 the target-achievement against the procurement-target was 51.1% in 2016-17. It increased to 57.2 % in 2017-18 and further to 61.2% in 2018-19. As per the data recorded on 30th Sept. 2020, the achievement stood at 127.5% and it is phenomenal.

**Table 7.1: Rice/Wheat Production and Procurement in Five Crop Years for Central Pool**

(in Lakh Tonnes)

Year	Rice				Wheat
	Production	Procurement (KMS)	Procurement Target	Target Achievement (%)	Production
2015-16	28.82	2.06	3.00	68.7	2.87
2016-17	38.42	1.39	2.72	51.1	4.25
2017-18	40.78	1.43	2.50	57.2	4.69
2018-19	28.94	1.53	2.50	61.2	3.03
2019-20	31.91*	2.55**	2.00	127.5	4.4*

\* 4th Advanced Estimates (Production Source: Directorate of Economics and Statistics)

\*\* As on 30.09.2020

Source: <https://dfpd.gov.in/writereaddata/Portal/Magazine/webupdataionSeptember2020.pdf>

### Procurement of Rice by FCI, State Agencies and Private Parties

Table 7.2 shows the break-up of the procurement done by the FCI, state agencies and local parties in the state. In 2015-16, the major procurement was done by the FCI, which procured 1.18 lakh tonnes out of the total procurement of 2.06 lakh tonnes. However, after that, the major procurement was done by the state-agencies. In 2016-17, the FCI procured 0.26 lakh tonnes whereas,

the state agencies procured 0.39 lakh tonnes and the remaining 0.74 lakh tonnes from a total procurement of 1.39 lakh tonnes was done by the local parties. Similarly, as on 30.09.2020, out of the total procurement of 2.54 lakh tonnes, the FCI has procured 0.71 lakh tonnes and state agencies have procured 1.83 lakh tonnes.

**Table 7.2: Procurement of Rice for the Central Pool during the Kharif Marketing Season in Jharkhand**

(in Lakh Tonnes)

KMS-Year	Procurement of Rice			
	FCI	State Agencies	Private Parties	Total
2014-15	0.02	0.04		0.06
2015-16	1.18	0.88		2.06
2016-17	0.26	0.39	0.74	1.39
2017-18	0.27	0.56	0.60	1.43
2018-19	0.45	1.08		1.53
2019-20*	0.71	1.83		2.54

*Source: FCI \*As on 30.09.2020*

### Stock of Food grains in Jharkhand under the central pool

As per the Food Bulletin for Oct. 2020 of FCI, the current stock of rice is 3.16 lakh MT and that of wheat

is 0.24 lakh MT in the state under the central pool (Table 7.3).

**Table 7.3: Total Stocks of Food grains in Central Pool as on 31.10.2020 (Figs. In LMT)**

Stock with FCI			Stock with State Agencies			Total Central Pool Stock		
Rice	Wheat	Total	Rice	Wheat	Total	Rice	Wheat	Total
3.16	0.24	3.40	0.00	0.00	0.00	3.16	0.24	3.40

Source: FCI, Food Bulletin for Oct. 2020.

### Stock of Food grains in State Warehouses/ Godowns/Wholesaler Depots

The current stock of rice, wheat, salt and sugar in the state for distribution through PDS are 22,67,45,786, 3,72,71,041, 78,41,403, and 50,23,561Kgs. respectively (Figure 7.1). East Singhbhum has the maximum stock of rice whereas; Dumka has the maximum stock of wheat. Lathehar is first in the stock of salt whereas, Dhanbad ranks number one in the stock of sugar.

In terms of the proportional composition of these stocks, the stock of rice is the most dominant, followed by wheat, salt and sugar (Figure 7.2). In terms of the total stock, rice constitutes more than 90% of the total stocks in four districts- Sahebganj, Hazaribagh, Gumla and Dhanbad. Similarly, there are only four districts- Ramgarh, West Singhbhum, Lohardaga and Latehar, where the stock of rice is less than 60% of the total stock.

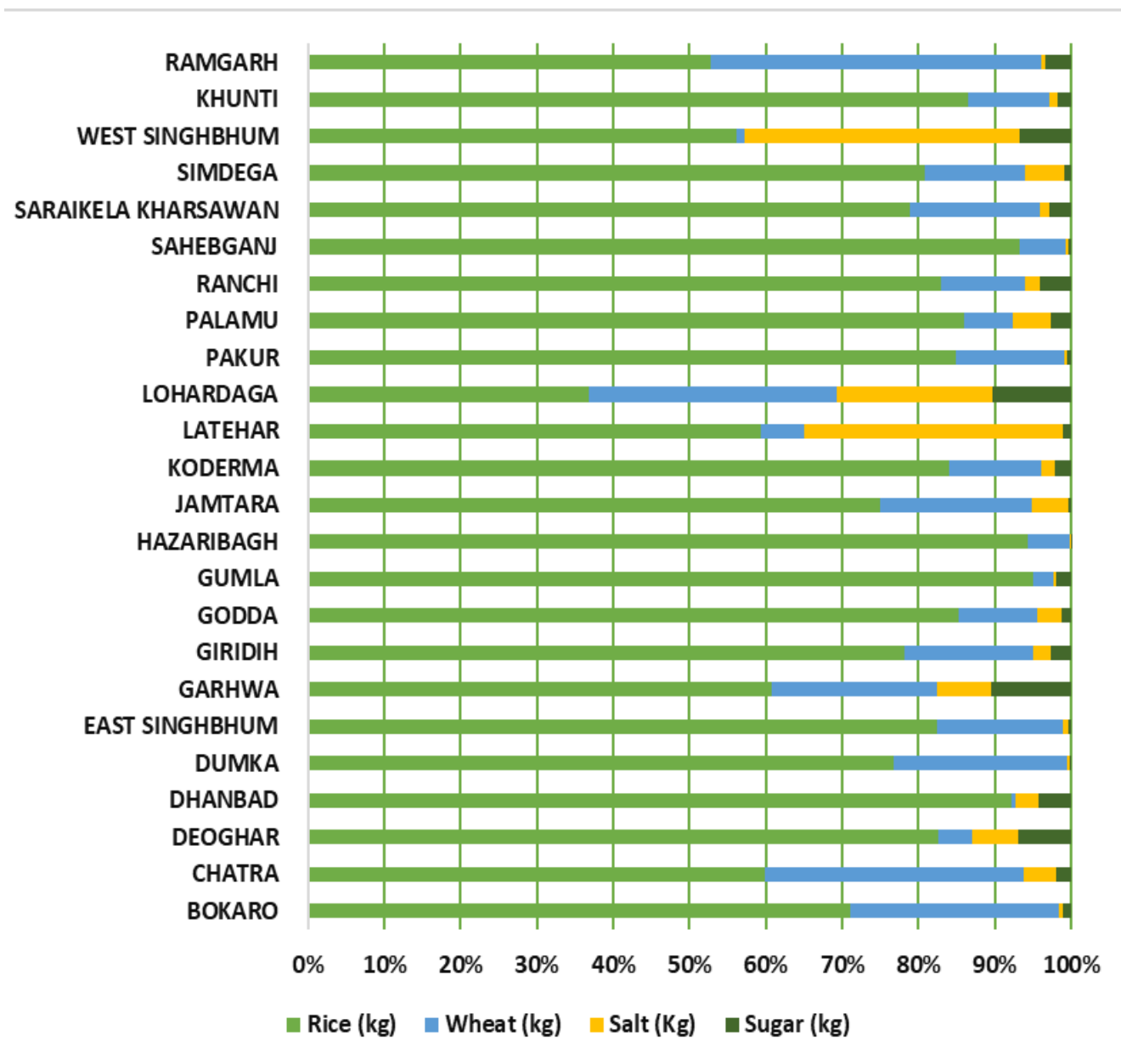
**Figure 7.1: District-wise Stock of Rice, Wheat, Salt and Sugar in Jharkhand (in Kgs.)**  
(as on 04.01.2021)

Sl.no.	Districts	Rice (kg)	Wheat (kg)	Salt (Kg)	Sugar (kg)
1	BOKARO	9819725	3789109	56629	153699
2	CHATRA	4344643	2465024	310241	136809
3	DEOGHAR	3150598	166006	226664	266531
4	DHANBAD	20740290	132737	693370	948513
5	DUMKA	21696300	6428719	122077	46885
6	EAST SINGHBHUM	28079544	5637976	272342	102342
7	GARHWA	2620713	938820	309980	448355
8	GIRIDIH	7334158	1594545	219172	240892
9	GODDA	5514666	668761	202819	79413
10	GUMLA	6760193	187489	20500	141266
11	HAZARIBAGH	8724047	513686	8273	7007
12	JAMTARA	802687	212180	50720	4614
13	KODERMA	18269133	2623524	373225	465285
14	LATEHAR	5098094	493058	2923764	83407
15	LOHARDAGA	337766	298052	187623	93551
16	PAKUR	16263832	2751156	60550	95070
17	PALAMU	12086822	886699	702822	378055
18	RANCHI	11222831	1492608	255614	551097
19	SAHEBGANJ	23470369	1510438	88217	97913
20	SARAIKELA KHARSAWAN	11533689	2516915	172624	411459
21	SIMDEGA	2189419	351900	142120	22750
22	WEST SINGHBHUM	581940	12372	372308	70405
23	KHUNTI	4883620	596217	58532	100484
24	RAMGARH	1220707	1003050	11217	77759
	<b>Total</b>	<b>226745786</b>	<b>37271041</b>	<b>7841403</b>	<b>5023561</b>

Source: [https://aahar.jharkhand.gov.in/depot\\_masters/depotStock](https://aahar.jharkhand.gov.in/depot_masters/depotStock)



Figure 7.2: District-wise Proportional Composition of foodgrains



Source: [https://aahar.jharkhand.gov.in/depot\\_masters/depotStock](https://aahar.jharkhand.gov.in/depot_masters/depotStock)

### Management of Storage

Food-security requires a continuous supply of food grains and this makes storage-management a key activity. The state has food grains-depots owned/hired by the state as well as owned/hired by the Food Corporations of India (FCI). The number of storage depots available with the FCI as on November, 2020 is 45, out of which 6 are owned and the remaining 39 are hired. A detail of these storage facilities is given in Table 7.4. At present the total storage capacity of the FCI in the state is 3.92 lakh tonnes, out of which 3.34 lakh tonnes is the current stock holding and thus 85% of the total storage-capacity

is under use.

The State maintains a total of 256 depots whose storage-capacity is 2,19,523 MT. A district-wise detail of these depots with their storage capacity is given in Figure 7.3. In terms of the storage-capacity, Dumka, Pakur and Hazaribagh are the top three districts with a capacity of 43,570, 23,800 and 21,000 MT respectively. Latehar and Khunti are at the bottom with a capacity of just 2,512 and 2,000 MT respectively.

**Table 7.4: Storage available with FCI in Jharkhand (as on November, 2020)**

	Owned By FCI	Hired						Total	Stoc ks Held	Uti l iza tion (%)
		State Govt.	CWC	SWC	PEG	Private Parties	Total Hired			
Numbers	6	0	3	10	25	1	39	45		
Storage Capacity (in Lac Tonnes)	0.72	0.00	0.20	0.37	2.48	0.15	3.20	3.92	3.34	85

Source: a. FCI (<http://fci.gov.in/app/webroot/upload/Storage/DepotsNov2020.pdf>)

b. FCI- State-wise Average monthly storage capacity (<http://fci.gov.in/app/webroot/upload/Storage/CapNov.pdf>)

**Figure 7.3: District-wise record of Total State Warehouses/Godowns/Wholesaler Depots and their Capacity (as on 04.01.2021)**

District Name	Total number of Depots	Depot-capacity (MT)
BOKARO	9	5050
CHATRA	13	9220
DEOGHAR	10	7000
DHANBAD	15	4261
DUMKA	14	43570
EAST SINGHBHUM	13	6650
GARHWA	11	4050
GIRIDIH	14	6750
GODDA	9	5500
GUMLA	13	6850
HAZARIBAGH	15	21000
JAMTARA	10	9530
KODERMA	6	1950
LATEHAR	7	2512
LOHARDAGA	5	4000
PAKUR	6	23800
PALAMU	15	3830
RANCHI	21	14200
SAHEBGANJ	9	4600
SARAIKELA KHARSAWAN	8	5700
SIMDEGA	6	5350
WEST SINGHBHUM	18	10450
KHUNTI	5	2000
RAMGARH	4	11700
<b>TOTAL</b>	<b>256</b>	<b>219523</b>

Source: [https://aahar.jharkhand.gov.in/depot\\_masters/depotStock](https://aahar.jharkhand.gov.in/depot_masters/depotStock)

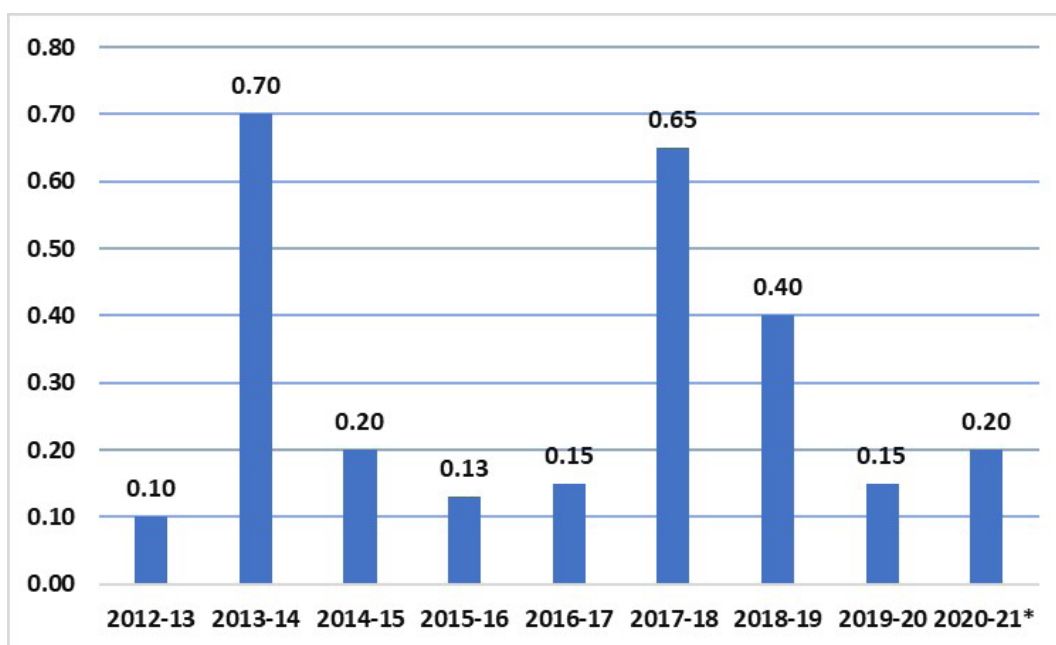
**Private Entrepreneurs Guarantee (PEG) Scheme for the Construction of Godowns in Jharkhand:**

It is a scheme for the construction of storage-godowns in the country for the storage of food grains in the Central Pool Stock. It was formulated in 2008, for the construction of storage-godowns in the Public Private Partnership (PPP) mode through private entrepreneurs, The Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWCs) to overcome storage-constraints and to ensure safe stocking of food grains across the country. Under the PEG scheme, no funds are allocated by the Government for the construction of

godowns and full investment is done by private parties/ CWC/state agencies by arranging their own funds and also the land. After a godown is constructed and taken over, the FCI gives a guarantee of rent for 10 years in the case of private investors and for 9 years in the case of CWC/SWCs/state agencies, irrespective of the quantum of food grains stored.

Under this scheme, the total capacity allotted/sanctioned for Jharkhand is 3,68,000 MT and out of it 2,68,000 MT of capacity has already been created (up to 30.06.2020). A year-wise detail of the storage capacity created under the PEG scheme in Jharkhand is given in Figure 7.4.

**Figure 7.4: Storage Capacity created under PEG scheme in Jharkhand**



Source: The Department of Food and Public Distribution, GOI \*(up to 30.06.2020)

( [https://dfpd.gov.in/pegScheme\\_C.htm](https://dfpd.gov.in/pegScheme_C.htm) )

**Distribution Management: PDS**

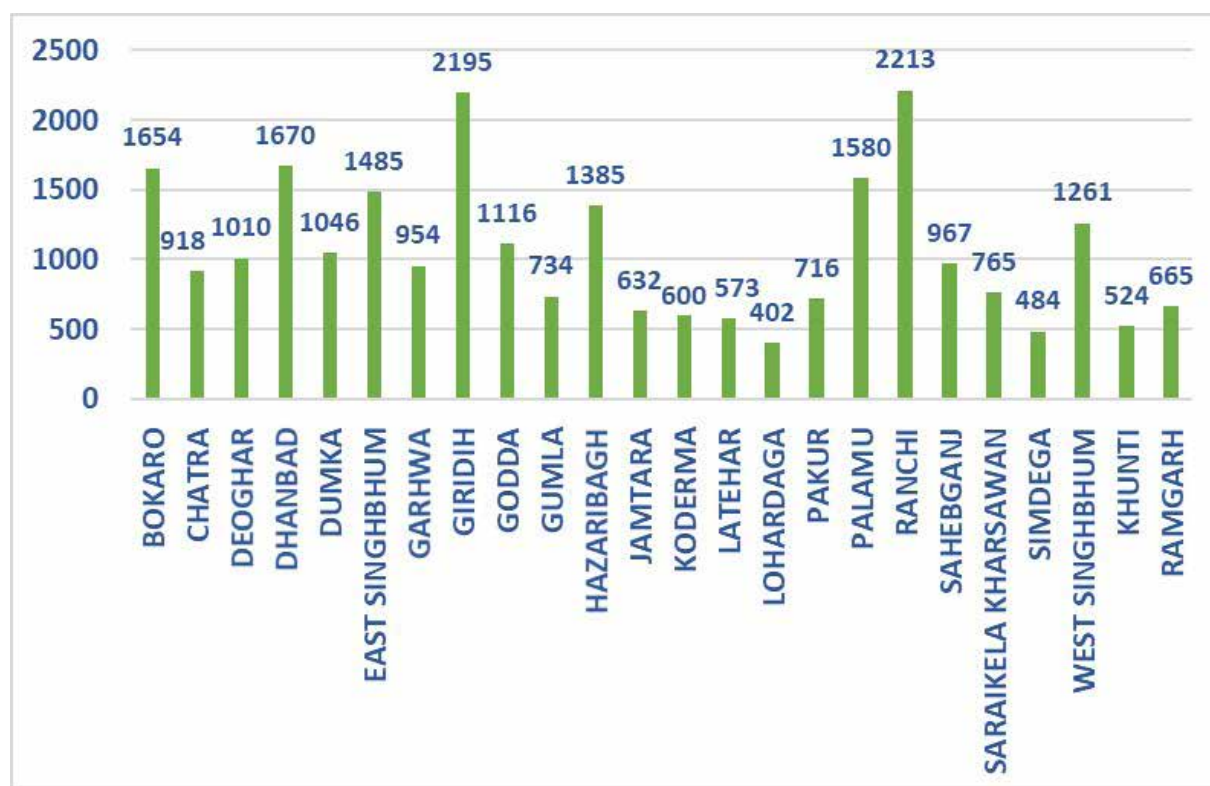
The Public Distribution System (PDS) is the system which ensures that food grains must reach the right beneficiaries timely. The main items which are distributed through the PDS in Jharkhand are rice, wheat, salt, sugar and kerosene. The PDS runs through Fair Price Shops under the PDS Dealers who distribute food grains and other materials to the beneficiaries as per the eligibility of their respective ration cards which cover 56,85,690 cardholders.

**PDS Dealers and Fair Price shops (FPS)**

Jharkhand has a very wide network of PDS Dealers and fair price shops. Figure 7.5 shows the district-wise

number of PDS dealers. There are 25,549 PDS dealers in the State. The total number of dealers are maximum in Ranchi (2,213) followed by Giridih (2,195) and Dhanbad (1,670) respectively. Lohardaga (402) has the minimum number of PDS dealers.

Jharkhand has a total of 24,281 FPS under NFSA. Table 7.5 shows the district-wise number of FPS in the State. Out of the total number of FPS, 86.6% are run by individuals and the remaining 11.4% are run by self-help groups. 67.3% FPS are GIS mapped and all are PoS enabled. The maximum number of FPS are in Ranchi (2,101) followed by Giridih (1,964) and Dhanbad (1,596) respectively. The minimum number of FPS is in Lohardaga (392).

**Figure 7.5: District-wise Number of PDS Dealers in Jharkhand(as on 09.01.2021)**


Source: [https://aahar.jharkhand.gov.in/block\\_city\\_reports/blockDealerCount](https://aahar.jharkhand.gov.in/block_city_reports/blockDealerCount)

**Table 7.5: District-wise number of Fair Price Shops (FPS) in Jharkhand (as on 10.01.2021)**

S. No.	Name of District	Number of Fair Price shops			GIS Mapped FPS	PoS Enabled FPS
		Self Help Groups	Individuals	Total no. of FPS		
1	Bokaro	196	1,355	1,551	1,433	1,551
2	Chatra	186	701	887	746	887
3	Deoghar	349	637	986	699	986
4	Dhanbad	266	1,330	1,596	592	1,596
5	Dumka	282	758	1,040	1,019	1,040
6	East Singhbhum	3	1,397	1,400	1,054	1,400
7	Garhwa	0	928	928	836	928
8	Giridih	305	1,659	1,964	468	1,964
9	Godda	86	1,001	1,087	119	1,087
10	Gumla	19	705	724	605	724
11	Hazaribagh	5	1,347	1,352	899	1,352
12	Jamtara	198	403	601	563	601
13	Khunti	10	495	505	486	505
14	Koderma	13	576	589	585	589
15	Latehar	7	535	542	122	542
16	Lohardaga	3	391	394	350	394
17	Pakur	191	451	642	466	642
18	Palamu	231	1,240	1,471	1,179	1,471

S. No.	Name of District	Number of Fair Price shops			GIS Mapped FPS	PoS Enabled FPS
		Self Help Groups	Individuals	Total no. of FPS		
19	Ramgarh	1	635	636	580	636
20	Ranchi	12	2,089	2,101	1,991	2,101
21	Sahebganj	180	744	924	497	924
22	Saraikela Kharsawan	3	717	720	613	720
23	Simdega	219	264	483	161	483
24	West Singhbhum	9	1,149	1,158	285	1,158
	Total:	2,774	21,507	24,281	16,348	24,281
	Total in %	11.4	88.6		67.3	100.0

Source: <https://nfsa.gov.in/reports/frmPublicReportPage.aspx?rid=00078>

### Ration Cards and beneficiaries

There are four types of ration card holders in Jharkhand. Among the BPL category, there are Pink cardholders (PHH), Yellow cardholders (AAY) and Green cardholders (newly introduced for those who are eligible but not covered under PHH and AAY). For the APL category, there is a white ration card (whose annual income exceeds one lakh). Table 7.5 shows the

district-wise and scheme-wise number of cardholders in the state. There are 56,85,690 cardholders under PHH and AAY which cover 2,61,00,521 family members. The total number of Green cardholders are 91,583 which cover 2,20,219 family members. The number of white ration cardholders are 4,53,100 which cover 17,62,669 members.

**Table 7.6: District-wise and scheme-wise number of cardholders in Jharkhand (as on 11.01.2021)**

S. No	Name of District	Ph Heads	Ph Members	Aay Heads	Aay Members	Total no. of Heads	Total no. of Members	White Heads	White Members	Green Heads	Green Members
1	Bokaro	268415	1221278	21675	99209	2,90,090	1320487	58592	235471	0	0
2	Chatra	131024	712620	38645	168928	1,69,669	881548	17161	69201	781	2222
3	Deoghar	213216	1120164	15382	68695	2,28,598	1188859	22778	83275	4099	11303
4	Dhanbad	385452	1725744	33435	121089	4,18,887	1846833	31158	120267	15050	37914
5	Dumka	200042	924694	48780	191042	2,48,822	1115736	15023	53665	0	0
6	Garhwa	220768	1046353	30412	127041	2,51,180	1173394	5543	20212	3322	8209
7	Giridih	334449	1758880	68438	349150	4,02,887	2108030	24153	93020	2632	8485
8	Godda	203690	985661	27754	98917	2,31,444	1084578	12322	47690	5204	13232
9	Gumla	129140	646718	32493	162649	1,61,633	809367	11801	45744	2736	7077
10	Hazaribagh	253924	1198432	54756	254777	3,08,680	1453209	25432	102296	1752	4318
11	Jamtara	131043	632994	18062	77756	1,49,105	710750	6400	22160	1113	3224
12	Khunti	70513	332981	33479	117883	1,03,992	450864	1814	7449	1577	3889
13	Kodarma	86442	454855	16463	76820	1,02,905	531675	20199	87007	3639	10437
14	Latehar	118971	588357	14440	68525	1,33,411	656882	3736	15074	2340	4841
15	Lohardaga	72569	357326	13997	55020	86,566	412346	3164	12385	1712	4487
16	Pakur	144492	686195	19682	67467	1,64,174	753662	12487	43335	3673	11027
17	Palamu	337629	1641376	46013	187814	3,83,642	1829190	12785	46123	8188	19886
18	Pashchimi Singhbhum	239761	908362	95987	338575	3,35,748	1246937	20321	72730	2292	4663
19	Purbi Singhbhum	352181	1466873	57773	193487	4,09,954	1660360	47965	188979	3701	8940

S. No	Name of District	Ph Heads	Ph Members	Aay Heads	Aay Members	Total no. of Heads	Total no. of Members	White Heads	White Members	Green Heads	Green Members
20	Ramgarh	99656	476844	20008	90406	1,19,664	567250	30324	121388	2126	6964
21	Ranchi	356203	1534031	104006	419141	4,60,209	1953172	34648	135851	21248	39752
22	Sahebganj	154395	775187	40240	162870	1,94,635	938057	15640	63605	436	1491
23	Saraike-la-Kharsawan	178384	720587	34081	132847	2,12,465	853434	14598	55205	2879	5127
24	Simdega	100069	477703	17261	76198	1,17,330	553901	5056	20537	1083	2731
	Total	4782428	22394215	903262	3706306	56,85,690	26100521	453100	1762669	91,583	2,20,219

Source: [https://aahar.jharkhand.gov.in/secc\\_districts/districts](https://aahar.jharkhand.gov.in/secc_districts/districts)

### Aadhar, Bank A/C and Mobile number seeding of Ration cards

In order to ensure the authenticity of the beneficiaries and to make sure that there are no leakages in the PDS, the ration cards are seeded with Aadhar, bank A/c and mobile numbers. Till now, 54, 66,609 ration cards have been Aadhar seeded and it is 96.15% of the total ration cards under the NFSA. 78.48% of the total ration cards

are bank A/c seeded and 49% are mobile number seeded. 4% of the total ration cards are under the silent category and have not been used since the last three months for transactions. Table 7.6 shows a scheme-wise summary of Aadhar, bank A/c and mobile number-seeding of the ration cards.

**Table 7.7: Aadhar, Bank A/C and Mobile no. seeding of Ration cards (as on 12.01.2021)**

Numbers	PH Heads	PH members	AAY Heads	AAY members	Total no. of Heads	Total no. of members
	4782428	22394215	903262	3706306	5685690	26100521
Aadhar seeded	4592482	18232466	874127	2929790	5466609	21162256
in %	96.03	81.42	96.77	79.05	96.15	81.08
Mobile no. seeded	2400218		386038		2786256	
in %	50.19		42.74		49.00	
Bank A/C seeded	3750363		709242		4459605	
in %	78.42		78.52		78.44	
Silent (3 months)	212771		14868		227639	
in %	4.45		1.65		4.00	

Source: <https://nfsa.gov.in/public/nfsadashboard/PublicRCDashboard.aspx>

#### Box 7.1: Jharkhand has launched a food security-scheme for 15 lakh people uncovered under NFSA

The food-guarantee scheme has been necessitated since lakhs of poor people have been left out of the NFSA which doesn't take into account the population-growth in the last decade. The NFSA was designed-based on the 2011 census, when the state's population was 3.29 crores. However, the population has grown substantially since then. Based on rough estimates, keeping in mind the previous growth-rate of 22%, registered in the previous decade, the additional population is deprived of the benefits under the NFSA which caps the number of beneficiaries.

Out of the 22 lakh pending applications of residents who have applied for ration cards under the NFSA, 15 lakhs would be accommodated under this new state-sponsored scheme, while vacancies would be created in the NFSA to accommodate the rest of the people.

The scheme will provide five kilograms of food grains per month to around 15 lakh beneficiaries at Rs 1 per kg. and a district-wise target will be set in order to reach 15 lakh eligible beneficiaries.

**Who is eligible for the new state-sponsored scheme:** There will be three categories including priority households, Antyodaya and PVTG like in NFSA. However, old people and differently-abled persons would get priority in the scheme.

### Distribution of food grains

Rice, wheat, salt, sugar and kerosene are the items which are regularly distributed in Jharkhand. However, during the Covid-19 lockdown-period dal and chana were also distributed in addition to the additional distribution of rice and wheat under the PMGKAY. Table 7.7 shows the monthly distribution of these items in the state. Since April 2020 to 11th January 2021, 1,09,70,11,355 Kg. of rice, 14,65,23,012 Kg. of wheat, 4,67,68,544 Kg.

of salt, 59,00,685 Kg. of sugar and 5,81,89,801 litres of kerosene has been distributed under the regular distribution schemes. Similarly, 83,89,92,094 Kg. of rice, 6,40,72,059 kg of wheat, 2,50,29,361 Kg. of chana and 1,42,98,340 Kg. of dal have also been distributed between the months of may 2020 and November 2020 in the State.

**Table 7.8: Month-wise distribution of foodgrains and Kerosene in 2020-2021 (NFSA)**

Month	Rice (Kg)	Wheat (Kg)	Salt (Kg)	Sugar (Kg)	Kerosene (ltr)	PMGKAY Rice (Kg)	PMGKAY DAL (Kg)	PMGKAY Wheat (Kg)	PMGKAY Chana (Kg)
April	12,23,08,123	1,63,73,081	8,88,731	56,272	74,59,201	0	0	0	0
May	12,09,60,255	1,63,49,043	20,89,439	1,02,079	75,86,036	25,09,45,614	90,48,313	0	0
June	12,25,99,478	1,63,67,799	89,87,195	16,47,958	79,46,193	12,67,95,166	52,50,027	0	0
July	12,43,55,683	1,64,49,225	58,36,501	2,76,662	81,07,964	9,61,57,421	0	1,33,93,702	45,76,439
August	12,25,22,737	1,65,01,400	50,01,745	1,77,650	53,93,792	10,00,44,716	0	1,43,61,322	47,82,087
September	12,08,98,393	1,65,55,546	75,45,110	12,82,078	53,37,271	10,95,77,670	0	1,52,67,458	53,57,556
October	11,97,02,486	1,60,84,473	43,28,088	7,37,726	52,73,605	10,94,14,085	0	1,49,02,516	53,08,274
November	11,56,06,613	1,56,45,338	26,46,061	2,50,702	51,94,220	4,60,57,422	0	61,47,061	50,05,005
December	10,20,05,883	1,32,45,407	85,73,215	12,95,616	47,05,651	0	0	0	0
January*	2,60,51,704	29,51,700	8,72,459	73,942	11,85,868	0	0	0	0
Total	1,09,70,11,355	14,65,23,012	4,67,68,544	59,00,685	5,81,89,801	83,89,92,094	1,42,98,340	6,40,72,059	2,50,29,361

\*Up to 11.01.2021

Source: [https://aahar.jharkhand.gov.in/district\\_monthly\\_reports](https://aahar.jharkhand.gov.in/district_monthly_reports)

### Food distribution during COVID- 19 Lockdown

Food security and nutrition security are crucial not only for the achievement of basic human rights but also for accelerating the pace of economic growth. The FY 2020-21 is still witnessing an unprecedented medical crisis and it has forced people to stay at home and hence has also reduced their earning opportunities. During COVID-19 the government of Jharkhand stood strong by its citizens and took full responsibility to feed them. For this several programmes were executed to achieve the targets.

#### 1. Contingent Packets–

Food packets containing 2 kgs of Chura (flattened rice), 500gm. of Gur (jaggery) and 500gm of Chana (gram) amounting to Rs. 110/- per packet were distributed to the needy people during COVID- 19. There was a target of reaching 5000 people of Ranchi and 2000 people per district from the other 23 districts. Overall, 49,155 packets were distributed.

#### 2. Operation of different types of Daal-Bhat Centres -

- I. **Vishesh Daal Bhat Centres** - 498 centres were sanctioned to feed 200 needy people per day free of cost.
- II. **Vishisht Daal Bhat Centres** - 361 centres were sanctioned on the same model to tackle the food-scarcity during the COVID- 19 pandemic.
- III. **Atirikt Daal Bhat Centres-** 382 centres were operated at the Thana (Police Station) level after the lockdown to feed 200 needy people per day, free of cost.
- IV. **Pravasi Majdoor Daal Bhat Centres-** A total number of 94 Centers were created at the national and the State highways to make available one-time food for people on their way home.

### 3.AAY/PHH –

The beneficiaries under AAY/PHH were provided additional ration for the month of May along with that of April itself. This way the AAY families were provided 70 kg of foodgrains in the month of April. Likewise, beneficiaries in the PHH category were provided 10 kg of foodgrains per person in the month of April.

### 4.Pradhan Mantri Garib Kalyan Anna Yojana –

As per this scheme, the beneficiaries covered under the National Food Security Act-2013, are to be provided 5 kg of rice per person free of cost till November, 2020.

### 5. Foodgrains distribution to people not covered under NFSA during COVID- 19-

The Department decided to provide 10 kg of rice per family who had applied for Ration cards through the ERCMS portal. This benefit was provided for the months of April and May, 2020.

### 6.Atmanirbhar Bharat Scheme –

Under the Atmanirbhar Bharat Scheme, Migrant/ Stranded Migrant Workers / Other eligible beneficiaries not covered under the NFSA, were provided with 10 kg of rice per migrant person or per non-NFSA family free of cost. Under this scheme, food grains are allocated to the state free of cost by the GOI.

### Food subsidy in Schemes

In the FY 2019-20, AAY received Rs. 164.85 crores as food subsidy out of which Rs. 150.36 crores (91.2%) were utilized. Similarly, PHH received Rs. 552.71 crores and the utilisation was Rs. 518.31 crores (93.8%). In the FY 2020-21, till December 2020, out of Rs. 164.85 crores allotted to the AAY as food subsidy, Rs. 71.61 crores (43.4%) were utilised and Rs. 552.71 crores given to PHH out of which Rs. 252.26 crores (45.6%) were utilised. Table 7.8 shows the year-wise allotment and utilisation of food subsidies under different schemes.

**Table 7.9: Food Subsidy in Schemes Year-wise**

(Rs. in crore)

FY	AAY		PHH		Annapurna		Salt	
	Total Subsidy/ Budget Allocation	Utilization	Total Subsidy/ Budget Allocation	Utilization	Total Subsidy/ Budget Allocation	Utilization	Total Subsidy/ Budget Allocation	Utilization
2016-17	154.00	144.59 (93.9%)	500.00	486.51 (97.3%)	4.41	0 (0%)	55.44	40.68 (73.4%)
2017-18	164.85	142.41 (86.4%)	571.77	497.45 (87.0%)	0	0	57.11	35.34 (61.9%)
2018-19	164.85	133.08 (80.7%)	552.71	473.64 (85.7%)	4.41	2.16 (49%)	50.00	13.22 (26.4%)
2019-20	164.85	150.36 (91.2%)	552.71	518.31 (93.8%)	5.2	0 (0%)	64.50	62.85 (97.4%)
2020-21	164.85	71.61 (43.4%)	552.71	252.26 (45.6%)	5.2	0.08 (1.5%)	5	39.59 (72.0%)

Note- In financial year 2020-21 utilization reports are given as of data available till 01.12.2020

Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand.

### Status of Ongoing Programmes/ Schemes

#### 1. National Food Security Act- 2013

It has been implemented in the state of Jharkhand in October 2015. Priority Household Scheme (PHH) and Antyodaya Anna Yojana (AAY) have been implemented under this head.

- Under the PHH scheme, foodgrains (rice and wheat) of 5 kg per person is being provided to each beneficiary at the subsidized rate of Re. 1/kg.
- Under the AAY scheme, foodgrains (rice and wheat) of 35 kg per AAY family is being provided at the subsidized rate of Re. 1/kg.



- At present, the total number of beneficiaries in Jharkhand under the National Food Security Act, 2013 is 2,64,25,385.
- The quantity of foodgrains lifted per month to distribute foodgrains to eligible beneficiaries is 1.44 lakh MT/Month

### **2. Annapurna Yojana**

Under this scheme, 10 kg of rice per beneficiary per month is distributed free of cost to 54,939 persons. The Central Government allots food grains (rice) under the scheme to the beneficiaries who are above 60 years of age and are eligible for the Indira Gandhi National Old Age Pension Scheme but are not getting the benefits. This scheme is fully dependent on the allotment of food grains from the Central Government.

### **3. Subsidized Kerosene Oil**

Under this scheme, kerosene oil at retail selling price (RSP) is distributed to the families of PHH, AAY and White Ration card holders of the state. The subsidy-amount on kerosene oil, which is borne by the GoI, is directly transferred to the bank account of the beneficiaries through DBT. The dealers are given commission of Re 1/litre borne equally by the State government and the beneficiaries.

### **4. Godowns Construction/Renovation**

So far as the storage capacity of godowns is concerned, the department has been able to create a capacity of nearly 2.68 lakh MT, out of which, the construction of storage-capacity of 1.61 Lakh MT is completed and that of 1.07 Lakh MT is still under construction. Under this scheme, the main focus of the department is to create sufficient storage-capacity for foodgrains to strengthen the supply chain management-system.

### **5. Distribution of Salt**

Under this scheme, each PHH family and AAY family is supplied 1 kg of free flow refined iodized salt per month at a subsidized rate of Re. 1 per kg. The total number of families covered is around 57 lakhs. The beneficiaries were provided with an additional 1 kg packet in the months of April and May keeping the Corona pandemic in view.

### **6. Mukhyamantri Dal-Bhat Yojana**

Under the Mukhyamantri Dal-Bhat Yojana, a one time meal is provided to the poor persons @ Rs. 5 per meal at 377 Dal-Bhat kendras of the state. At present, 11 Ratri Dal-Bhat Kendras are running. In addition, there

is a Mukhyamantri Canteen Yojana on pilot-basis in the district of Ranchi and Jamshedpur with enhanced qualities and facilities.

### **7. Distribution of Sugar to AAY**

Under this scheme, at present the AAY families are being supplied with 1 kg of sugar per month at a subsidized rate. The families are provided sugar depending on the dietary habit/central allocation/preferences of the population. At present, a subsidy of Rs. 18.50 per kg is being provided by the Central Government.

### **8. National Food Security Complaint Redressal**

A proper mechanism is to be evolved for the proper monitoring, supervision and redressal of the grievances under the NFSA. For this purpose, Call Centres, Helplines, DGRO, State Food Commission etc. have been established. Through the established call centre-PGMS (Public Grievance Management System), monitoring and supervision of departmental schemes at the district level has become easier.

### **9. Providing Digital Weighing Machine to the PDS Dealers**

There is a proposal to provide digital weighing machines to the PDS shops to stop pilferage in the distribution of food grains and to ensure that the beneficiaries get the proper quantity of food grains. In FY 2017-18 the PDS shops of Ranchi and Anubhajan of Dhanbad and Jamshedpur have been provided these machines on pilot-basis.

### **10. Consumer Welfare Fund Scheme**

The department has already constituted the Consumer Welfare Fund of Rs. 10 Crores in the FY 2016-17 with the state-contribution of Rs. 2.5 crores and the Central Government contribution of Rs. 7.5 crores. Consumer welfare measures are to be undertaken out of the interest amount accrued thereon.

### **11. PVTG Dakiya Scheme**

Since April 2017, the department has been providing food grains at door step to the primitive tribe-population of the state under the PVTG Dakiya Yojana. Under this scheme, a PVTG family is provided 35 kg of food grains free of cost. At present the total number of PVTG families in the state is 73,618.

### **12. Jharkhand State Contingent Food grains Fund**

The Government aims at providing food-security under

the provisions of NFSA-2013. However, to thwart any eventuality of starvation-deaths, the government has constituted the Jharkhand State Contingent Food grains Fund right from the district level down to the panchayat level in the FY 2018-19. From this fund, 10 kg of rice is given to the eligible beneficiaries free of cost from the open market at or below the notified rate of the local market-committee.

During the COVID-19 pandemic, this fund has helped the department tackle the scarcity of food grains of needy people at the ground level.

## II. Nutrition Security

Nutrition is very important not only from the point of view of economic development via the development of an intergenerational strong and more productive labour force, but also for the validation of human rights, especially of the most vulnerable children, girls and women. It constitutes the foundation of human development, by reducing susceptibility to infections, related morbidity, disability and the burden of mortality by enhancing cumulative lifelong learning-capacities and adult-productivity. Nutrition is acknowledged world wide as one of the most effective entry-points for human development, reduction of poverty and economic development, with high economic returns.

### Status of a few measures used to evaluate the nutrition-security of Jharkhand

Jharkhand is among the low performer-states in India in terms of nutrition-security. The various indicators used to assess nutritional security are very poor. However, with the launch of the state nutrition mission (Poshan Abhiyan) and other related schemes (food security and health care schemes), it will join the club of high performer-states very soon. Figure 7.6 shows the status of the various indicators of malnutrition in Jharkhand and in India.

### Stunting

Stunting causes irreversible physical and mental damage in children. Stunted children are too short for their age and it is mainly due to malnutrition and repeated infections. Jharkhand is among the top three states in India in terms of the prevalence of stunting in children under five. It is the highest in Bihar (48 per cent) followed by Uttar Pradesh (46 per cent) and Jharkhand (45 per cent).

### Wasting

Wasting, or low weight for height, is a strong predictor of mortality among children under five and it is usually the

result of an acute significant food-shortage along with other reasons. Jharkhand also has the highest prevalence of wasting (29 per cent) and underweight (47.8 per cent) in India among children aged below five years. Table 7.9 shows the under-five years-mortality rates (U5MR) in Jharkhand and India (per 1,000 live births). Although, it is still high in Jharkhand but it has shown signs of improvement. The total (U+R) U5MR was 39 in 2015 and it reduced to 34 in 2017. However, the national average of the total (U+R) U5MR was 23 in 2017.

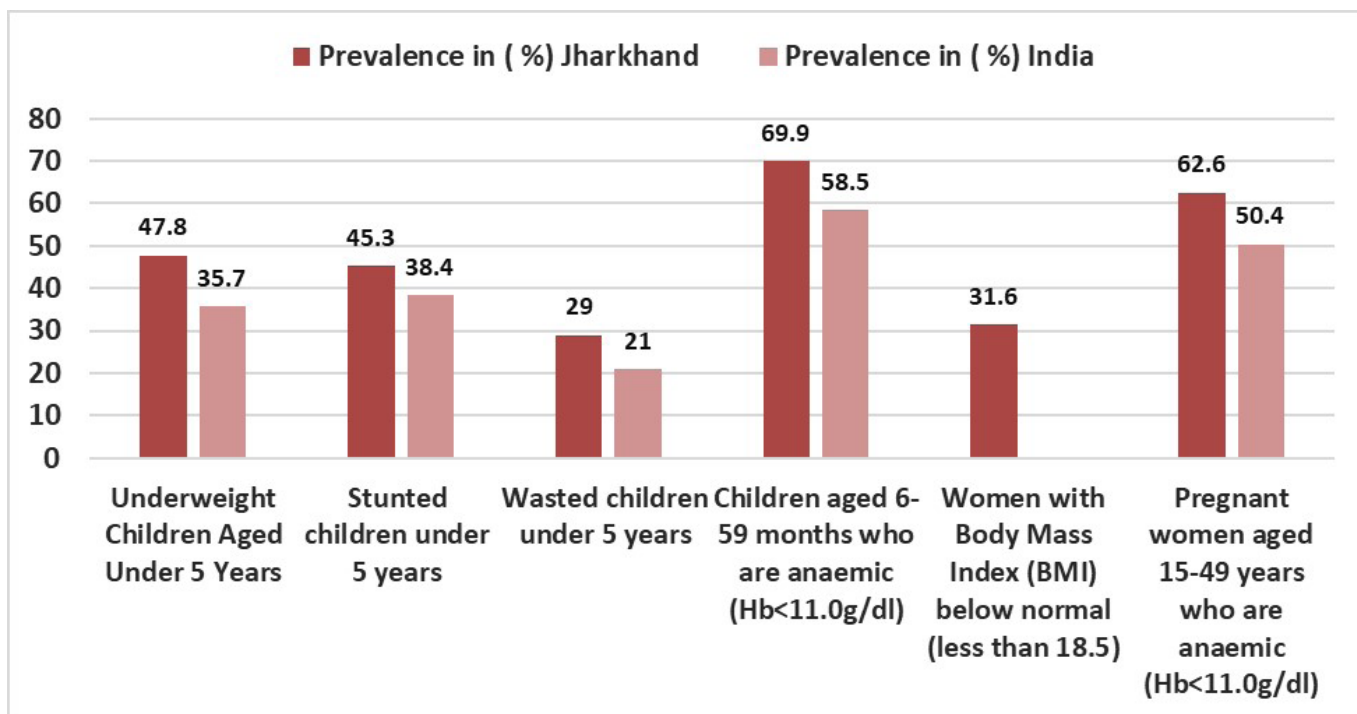
### Prevalence of Anaemia

Malnutrition can lead to low red blood cell-count, low levels of haemoglobin in these cells, or red blood cells that do not function as they should. Anaemia is a term for these issues. Iron-deficiency anaemia is the most common type, but low levels of folate or vitamin B-12 can also cause the condition, and a low vitamin C-intake can contribute to it. Anaemia is a cause of worry in children as well as in women of the reproductive age-group in Jharkhand. It is the second highest in the prevalence of anaemia (69.9%) among children under five years in the country after Haryana (71.7%). The prevalence of anaemia among pregnant women aged 15 to 49 years is also very high in Jharkhand in comparison to the national average. For India it is 50.4% whereas, it is 62.6% for Jharkhand. Anaemia is also among the reasons responsible for the high maternal mortality-rate (MMR) and high neo-natal or infant mortality-rates (IMR). Table 7.9 shows that the neo-natal death-rate in Jharkhand was 20 in 2017.

### Body Mass Index (BMI)

BMI is generally used to check the severity of malnutrition among the adult-population. BMI is a simple index of weight-to-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as weight in kilograms divided by square of the height in metres ( $\text{kg}/\text{m}^2$ ). Proportions of underweight in women aged 15–49 years and of overweight in women aged 18 years or more are included as the intermediate outcome indicators in the core-set of indicators for the global nutrition monitoring framework. As per classifications, under weights have a BMI value of less than 18.5. For Jharkhand, the percentage of women having a BMI value of less than 18.5 is 31.6 per cent which is quite high.

Figure 7.6: Status of malnutrition in Jharkhand and India (during 2015-16)



Source: Ministry of Health and Family Welfare, GOI. (National Family Health Survey)

Table 7.10: Under-five and neo-natal mortality-rates in Jharkhand and India (per 1,000 live births)

	2015			2016			2017		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
<b>Rural</b>									
Jharkhand	38	48	43	32	37	35	31	39	35
India	46	50	48	42	46	43	41	43	42
<b>Urban</b>									
Jharkhand	25	26	26	29	24	26	24	33	28
India	26	31	28	24	27	25	24	27	25
<b>Total (R+U)</b>									
Jharkhand	35	44	39	31	35	33	30	38	34
India	29	15	25	27	14	24	27	14	23
<b>Neo-natal Mortality-Rate</b>									
Jharkhand	25	15	23	23	13	21	21	13	20
India	29	15	25	27	14	24	27	14	23

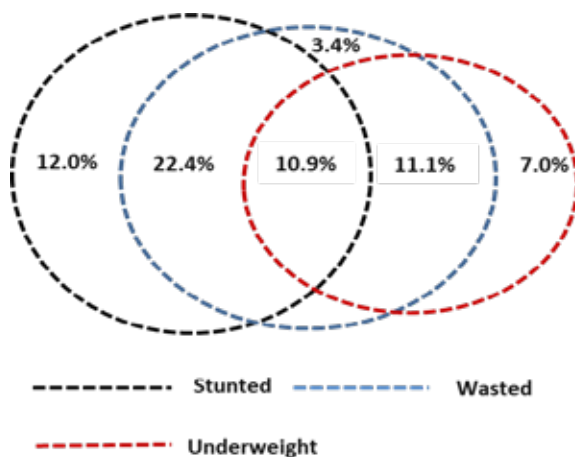
Source: Ministry of Health and Family Welfare, GOI. (National Family Health Survey)

### Multiple burden of Malnutrition

Multiple burden of malnutrition is the coexistence of any two or all the three forms of malnutrition: stunting, wasting and underweight. Figure 7.5 is a Venn diagram, showing the co-existence of multiple forms of under-nutrition among children aged under 5 in Jharkhand. Among the children aged 0-5 years, 10.9per cent children are stunted, wasted as well as underweight; 22.4 per cent children are stunted and underweight and 11.1per cent children are wasted and underweight. These figures are quite high in comparison to the national average where 6.5 per cent children are stunted, wasted as well as underweight; 18.4 per cent children are stunted and underweight and 8.2 per cent children are wasted and under-weight. Jharkhand (10.9 per cent) has the highest prevalence of the multiple burden of malnutrition (under five children who are stunted, wasted and underweight); followed by Madhya Pradesh (8.5 per cent) and Bihar (8.1 per cent).

This analysis also reveals that after disaggregating the coexistence of these three conditions, 12.0per cent children are only stunted (against 45.3per cent in the overall prevalence of stunting), 3.4 per cent are only underweight (against 47.8 per cent in the overall prevalence of underweight) and 7.0 per cent (against 29.0 per cent in the overall prevalence of wasting) are wasted in the state.

**Figure 7.7: Multiple burden of malnutrition in Jharkhand (2015-16)**



Source: Estimated from NFHS-4, 2015-16, Food and Nutrition Security Analysis, India, 2019.

### Enhancing nutrition-security in Jharkhand- POSHAN Abhiyaan

The National Nutrition Mission or POSHAN Abhiyaan was launched in 2017 by the ministry of Women

and Child Development, Government of India. The principal goal of POSHAN Abhiyaan is improving the nutritional status of children aged 0-6 years, adolescent girls, pregnant women, and lactating mothers. It is an overarching multi-ministerial convergence mission that is working towards a malnutrition-free India by 2022. The mission is a conjunction of various schemes/ programmes, including the PMMVY, Anganwadi Services, Scheme for Adolescent Girls of the Ministry of Women and Child Development (MWCD), National Health Mission (NHM) of the Ministry of Health and Family Welfare, Swachh Bharat Mission of the Ministry of Drinking Water and Sanitation (DW&S), Public Distribution System (PDS) of the Ministry of Consumer Affairs, Drinking Water and Toilets with the Ministry of Panchayati Raj, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) of the Ministry of Rural Development (MoRD), Food and Public Distribution (CAF&PD), and other urban local bodies through relevant ministries.

The Abhiyaan aims to target the unique 1,000-day window of child-birth, and providing pre- and post-delivery support to mothers to reduce malnutrition. The implementation of the POSHAN Abhiyaan is hinged on the key pillars of supporting the development of services for vulnerable populations: Technology (ICDS-Computer application software), Convergence Action Planning, Behavioural Change-Communication, and Capacity building. The POSHAN Abhiyaan programme aims to provide a platform for the convergence of the three pillars discussed above. With the slogan ‘Jan Andolan (people’s movement)’, the Abhiyaan intends to make the fight against malnutrition a national goal for each citizen. Under this abhiyaan an entire range of themes is exhibited and showcased in the form of food meals, rallies, school level-campaigns, anaemia tests camps, recipe-demonstration, radio and TV talk shows, seminars, etc. all across country.

### POSHAN MAAH (07th September to 30th September, 2020)

POSHAN MAAH was celebrated in all the 24 districts of Jharkhand. Table 7.10 shows the number of activities undertaken during this period as well as the number of participants in them. The total number of activities was 5,38,648 while the total number of participants was 5,16,19,384. Figure 7.8 shows the activity-wise number of participants. The number of participants in poshan (overall nutrition) is 2,83,854 (19%). Similarly, in breastfeeding it is 1,31,695 (9%)and so on.

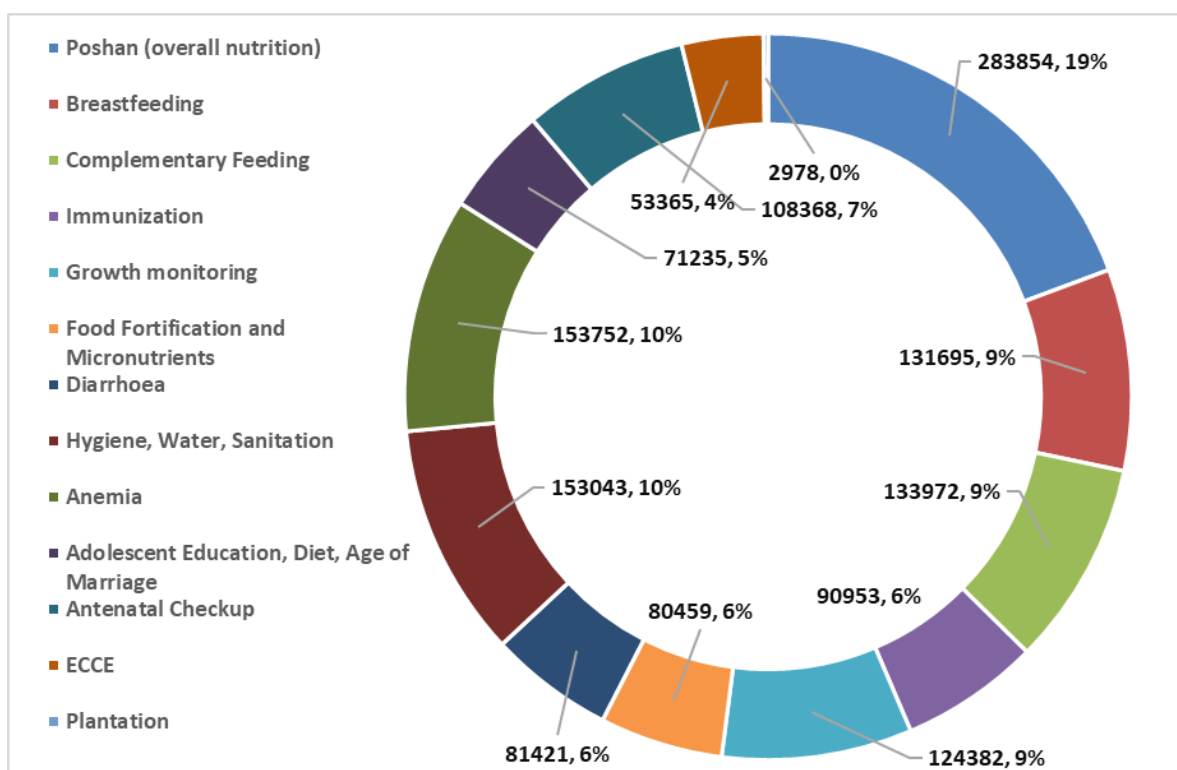
**Table 7.11: Number of activities and participation during the POSHAN MAAH in Jharkhand**

District Count	Activities	Adult Males	Adult Females	Child Males	Child Females	Total*
24	538648	14554770	19600792	7655247	8717916	51619384

\* Total number of disaggregated participants will not equal the total number of participants as reporting by disaggregation is not obligatory

Source: <http://dashboard.poshanabhiyaan.gov.in/maah20/#/>

**Figure 7.8: Activity-wise number of participants**



Source: <http://dashboard.poshanabhiyaan.gov.in/maah20/#/>

**Specific activities under Child and Maternal Healthcare under the POSHAN ABHIYAAN during 2019-20 and 2020-21 in Jharkhand**

Various activities were undertaken in Jharkhand to improve the child and maternal health under the POSHAN ABHIYAAN during 2019-20 and 2020-21. Table 7.11 shows a detail of all these activities. In routine immunization children (0 to 1 year) were immunized for protection against ten life threatening diseases and between April, 2020 and September 2021, a total of 3,42,539 children were immunized.

Under the JMSSPM, children between 9 months and 5 years of the age were administered Vitamin A supplements through biannual rounds and between November to December 2019, total of 33,36,330 children were administered this. Similarly, under Intensified Diarrhoea Control Fortnight, to prevent the deaths due to diarrhoea in children under five years, ORS and Zinc tablets are distributed during the pre-monsoon and the monsoon seasons in a campaign of 15 days every year and during 2019-20, 32,66,125 children received these.

**Table 7.12: Activities under POSHAN ABHIYAAN during 2019-20 and 2020-2021**

Year	Target	Achievement	Coverage
<b>Routine Immunization (0 to 1 year)</b>			
2019-20	831300	782948	94%
2020-21(Apr-Sept)	425088	342539	81%
<b>National Deworming Day (1 to 19 years)</b>			
01.09.2019	151.22 lakh	130.84 lakh	86.53%
01.02.2020	71.41 lakh	63.75 lakh	89.27%
01.09.2020	62.78 lakh	Report yet to come	
<b>Jharkhand Matri Shishu Swasthya evum Poshan Maah (Vitamin A Round) (9 months to 5 years)</b>			
May -June 2019	3836498	3520049	92%
Nov-Dec 2019	3763447	3336330	89%
Oct-20	4063095	Round still going on	
<b>Intensified Diarrhoea Control Fortnight</b>			
2019-20	3842501	3266125	85%
2020-21	3842501	Round still going on	
<b>Anaemia Mukht Bharat (AMB)</b>			
Year	IFA Supplements	Target	Achievement
2019-20	IFA Syrup	4033796	88133
2020-21(Apr.-Sept)		3630582	282470
2019-20	IFA Pink	3940018	437222
2020-21(Apr.-Sept)		3176787	969042
<b>Severe Acute Malnourished (SAM) children treated</b>			
Year	Number of treated children		
FY 2019-20	9910		
FY 2020-21(April to Sept.)	1795		

Source: Department of Health, Medical Education and Family Welfare government of Jharkhand

**Box 7.2: Jharkhand recorded the lowest maternal mortality ratio (MMR) in eastern India and ranks the fifth lowest in the country**

The special bulletin on “Maternal Mortality in India for 2016-18” released by the office of the Registrar General of India, revealed that Jharkhand had recorded an MMR of 71 during the period, which is much lower than the national estimate of 113. Only four states- Kerala (43), Maharashtra (46), Tamil Nadu (60) and Andhra Pradesh (65) recorded lower MMR than Jharkhand during that period.

It was a notable achievement for Jharkhand that recorded an MMR of 312 during 2004-06 but improved to 261 during 2007-09 and further reduced it to 165 during 2014-16. During 2015-17, Jharkhand had recorded an MMR of 76, that went down further to 71 during 2016-18, which is the lowest in eastern India.

MMR is defined as the number of maternal deaths during a given time period per 100,000 live births during the same period. It is a measure of the reproductive health of women in an area and is calculated using the data collected through the sample-registration-system. According to the World Health Organization, “maternal death is the death of a woman while pregnant or within 42 days of the termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management but not from accidental or incidental causes”.

*Source: <https://www.telegraphindia.com/jharkhand/maternal-deaths-dip-in-jharkhand/cid/1787115>  
(Published on 23.07.2020, 05:52 AM)*

**Conclusion**

Ensuring food and nutrition security for the citizens of the State is one of the important objectives of the government and the achievements of Jharkhand in this regard are quite encouraging. Jharkhand is one among the major rice-consumer-states in India. In 2019-20, under the central pool, Jharkhand has procured a total 2.55 lakh tonnes of rice which is more than the procurement-target of 2 lakh tonnes. As per the data recorded on 30th September 2020, the achievement stood at 127.5% which is remarkable. Storage-management helps in ensuring continuity in food supply and hence is very crucial to food and nutrition-security. The number of storages available with the FCI as on November, 2020 was 45 and the storage-capacity is 3.92 lakh tonnes. The State also maintains a total of 256 depots whose storage-capacity is 2,19,523 MT and an additional 0.20 MT storage-capacity has also been created in Jharkhand under the PEG scheme during 2020-21.

Jharkhand has a very wide network of PDS Dealers and fair price shops. There are 25,549 PDS dealers in the State and a total of 24,281 FPS under NFSA. There are 56,85,690 cardholders under PHH and AAY which cover 2,61,00,521 family members. Till now, a total of 54, 66,609 ration cards have been Aadhar seeded and it is 96.15% of the total ration cards under NFSA. 78.48% of the total ration cards are bank A/c seeded and 49% are mobile number seeded. 4% of the total ration cards are silent and have not been used for the last three months for transactions.

The various indicators used to assess nutritional security are still very poor in Jharkhand. However, with the launch of the national/state-nutrition mission (Poshan Abhiyan) and other related schemes (food security and health care schemes), it is improving now. Jharkhand had recorded an MMR of 71 during 2016-18, which is much lower than the national estimate of 113 and the total (U+R) under five years mortality rate which was 39 in 2015 reduced to 34 in 2017.

**ANNEXURE 7.1**

**Nutritional division between tribals and non-tribals in Jharkhand**

Stunting is a cumulative indicator of nutritional deprivation from birth or rather conception onwards. It is not a result of immediate circumstances since height does not change in the short term but wasting by contrast is an indicator of short term nutritional status or can occur because of the high incidence of infectious disease(Deaton & Drèze, 2008 ) However, there is nothing wrong with being short or lean. But there is evidence that serious deprivation can be the cause of stunting or wasting in childhood. Demonstrably there is variation in the genetic potential of an individual to be small or large in height, fat or thin, but nutritional deprivation in early life results in failure to attain one’s genetic potential. While genetics are important at the individual level, they are much less so- and arguably unimportant at the population level, so that populations with a high fraction of people who are stunted or underweight are populations where there is evidence of nutritional deprivation.

Children’s anthropometric status is usually evaluated on the basis of international standards which reflect the anthropometric features of children in a well-nourished reference population. The distribution of heights and weights in the reference population is used to set “cut-offs” below where by a child would be considered stunted, wasted or underweight. A standard cut-off is “median minus two standard deviations”. Height-for-age is measured using z-scores, meaning that it is expressed as a difference between the height of the observed child and the average height of healthy children, scaled by the standard

deviation of child height in the healthy population. A child with a height-for-age z-score of zero would be as tall as the average child in the healthy reference population; a child with a negative height-for-age z-score is shorter than the average child in the healthy reference population.

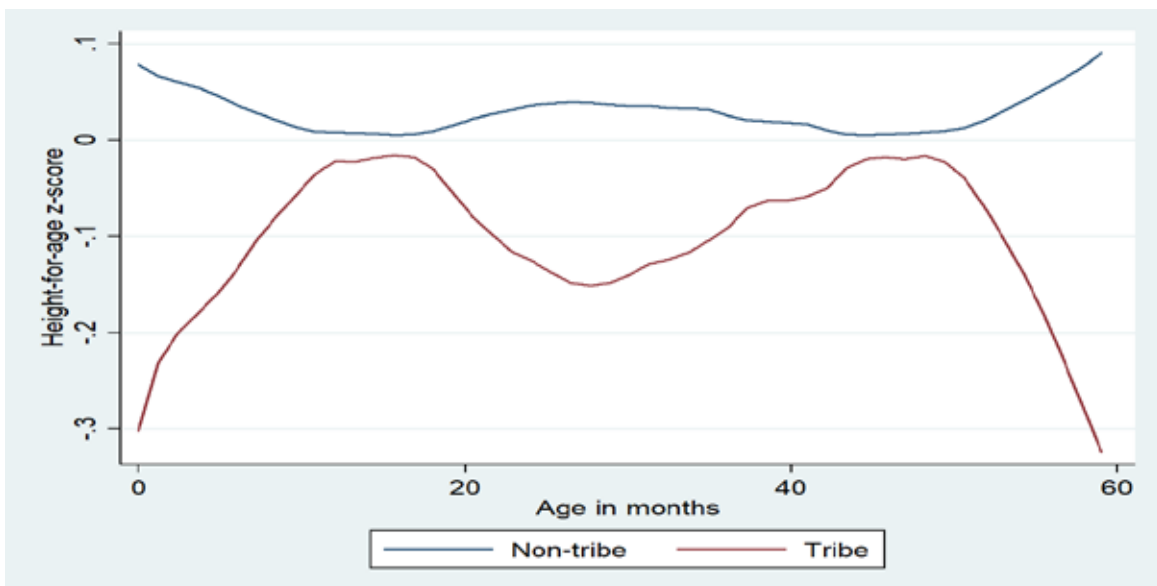
A “stunted” child is one whose height-for-age z-score is below -2. The “stunting rate,” then, is the fraction of children whose height-for-age is below this cut-off.

Using NFHS-IV, the stunting rate we calculated in Jharkhand is 42.46%. In urban Jharkhand, stunting is as low as 16.23% whereas in rural Jharkhand stunting is as high as 83.77%. Considering the widespread and severe nature of discrimination between tribes and non tribes in Jharkhand, we try to find out the gap between tribal and non tribal children in Jharkhand.

The following figure 1, the horizontal axis is a child’s age in months, and the vertical axis is the mean height-for-age of children at each age. One visible pattern is the large gap between tribal children and non tribal children of all ages. Even at no particular age there is a huge gap between tribal and non tribal children indicating that non tribal children the risk of stunting from birth.. The gap between tribal and non tribal children tends to reduce at age 1 but then again tribal children are likely to be stunted at the age of 3. And after the age of 4, the fluctuation of the gap between tribal children and non tribal children tends to be stable, and the gap between them seems to be very high.

Thus, it is clear from the following figure that tribal children are more stunted in Jharkhand as compared to non tribal children.

**Fig 1: height-for-age z-score for tribal and non-tribal in Jharkhand**







# Chapter 8

## Industry





The industrial sector has a multi-faceted role in the growth and development of Jharkhand. The performance of this sector plays a critical role in ensuring a balanced and rapid development. The industrial sector due to its deep backward and forward linkages with the other sectors of the economy such as agricultural goods, transportation, storage and trade has the capacity to pass on the growth impetus to the entire economy, truly acting as the driver of growth. The large deposits of minerals provide a solid launching pad for all kinds of industries. With 40 per cent of the nation’s mineral reserves in Jharkhand, the state government aims at a rapid development by harnessing the location advantage with a proactive Industrial Policy and visionary leadership. The different linkages of the industrial sectors in the economy along with the other sectors sometimes also makes it vulnerable to several internal and external economic challenges adversely affecting its growth.

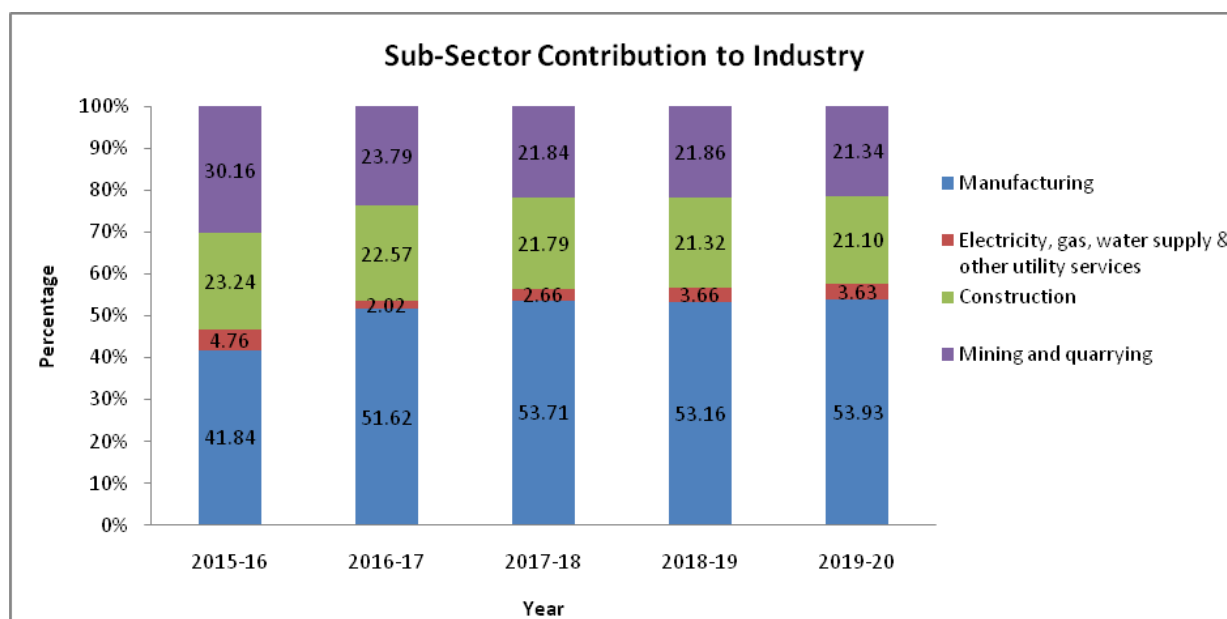
Jharkhand has been spearheading the growth of the state particularly in the manufacturing field. The industrial sector contributes a share of 42% of its total gross state value added for the year 2019-20. For the last five years the relative share of the industrial sector has remained in the range of 41-42%, though there have been some changes through the years. Trends in industrial production can be analysed by considering the changes in the GSVA values-sector wise and within its sub sectors. The industrial sector has registered 4.25 % growth in the year 2019-20 in which the manufacturing sector accounted for 5.75 % growth followed by electricity and construction with growth rates of 3.5 % and 3.17% respectively. However the mining and quarrying sector has experienced a sluggish growth rate of merely 1.8%.

**Table 8.1: Gross State Value Added by the industrial sub sector at current prices (in lakhs)**

Industry Sector	2015-16	2016-17	2017-18	2018-19	2019-20
Manufacturing	2726440	3656754	4168279	4463996	4721058
Electricity, gas, water supply & other utility services	310277	143062	206112	306956	317705
Construction	1514673	1599270	1691133	1790445	1847122
Mining and quarrying	1965121	1685398	1695332	1835381	1868342
Total	6516511	7084484	7760856	8396778	8754226

Source: Ministry of Statistics and Programme Implementation, Government of India

**Figure 8.1: Last Five Years Gross State Value Added by the industrial sub sector at current prices**

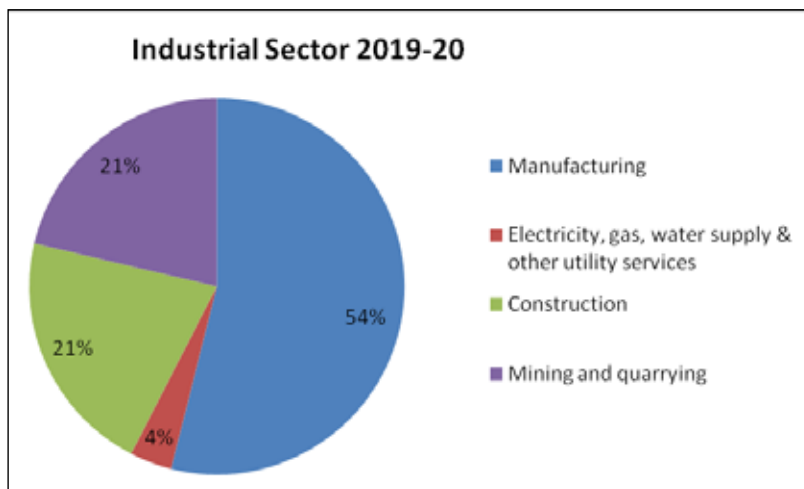


Source: Ministry of Statistics and Programme Implementation, Government of India

The figure and the tables below show that within the industrial sector, the largest share has been that of the manufacturing (54%) sector, followed by mining and quarrying (21.3%), and then the construction sector (21.1%). The share of the manufacturing sector has clearly gone up from 41.84% in 2015-16 to 53.93 % in 2019-20 whereas that of the mining & quarrying has fallen down from 30% in 2015-16 to 21% in 2019-20 a majority of this has been transferred to the manufacturing sectors i.e. 4.76 % in 2015-16 to 3.63% in 2019-20. A slight dip has been witnessed in the share of the construction and electricity sector.

Industrial development promotes higher capital formation, increased fixed capital, working capital, gross output etc. Also growth in these sectors will have a direct impact on the overall industrial growth. Fixed capital of the state has gone up to 41% from 2015-16 to 2017-18 whereas it has increased by 17% at the national level. This shows that the new long term investment in the state is higher compared to that at the national level. Similar trend can be seen in the increased number of workers over the years both at the state and the national level. Overall, the sharp rise in most of these indicators shows the upward momentum of investment in industry.

**Figure 8.2: Gross State Value Added by the Industrial Sub Sector at Current Prices for the year 2019-20**



Source: Ministry of Statistics and Programme Implementation, Government of India

**Table 8.2: Various Indicators of Industrial Progress in Jharkhand**

Particulars	Jharkhand			India		
	2015-16	2016-17	2017-18	2015-16	2016-17	2017-18
Value of Gross Output (in lakhs)	11474938	12322755	14153289	686235375	726551423	807217258
Gross Fixed Capital Formation (in lakhs)	1270086	516686	148830	37958758	36910006	31268805
Number of Workers (in units)	141763	144620	153026	11136133	11662947	12224422
Total Emoluments (in lakhs)	684081	705670	754377	33975074	37516385	41835716
Working Capital (in lakhs)	765714	428760	801648	74052998	66308287	64411890
Number of Factories	2831	2858	2866	233116	234865	237684
Fixed Capital (in lakhs)	7443105	10328969	10547093	280964722	319038649	328588927

Source: Annual Survey of Industries (ASI), Ministry of Statistics and Programme Implementation, Government of India.

## Industrial Policies

The government of Jharkhand lays utmost emphasis on making the state one of most preferred destinations for investors by providing hassle free business environment, excellent infrastructure, perfect law and order and also creating employment opportunities across the industrial sectors. The table below illustrates the various industrial policies of Jharkhand that are put in place to catalyse growth of the industrial sector. Below are the brief descriptions of the primary objectives of some of the polices :

- **Jharkhand Industrial Policy 2001:**The Industrial Policy aims to create employment opportunities in this sector with improved productivity, also ensuring homogeneous and balanced development of all the geographical regions of the state with special emphasis on the development of small, tiny and cottage industries.
- **Jharkhand Food Processing Policy 2015:**The Policy aims at creating a conducive environment for setting-up of food processing units, link groups of producers to the processors and markets through a well-equipped supply chain and increase the level of processing, reduction of wastage, value addition, thus enhancing the overall income increase exports resulting in the overall development of the food processing sector.

- **Jharkhand Export Policy 2015:** It provides a simple, proactive, responsive and supportive institutional mechanism for the rapid growth of exports. The policy also aims to strengthen the export infrastructure in the state.
- **Jharkhand Industrial and Investment Promotion Policy 2016:** The policy intends to promote employment generation in the industrial and service sector by providing facilitation under the Industrial and Investment promotion Policy. The objective is to establish linkages between large industries and MSME and ancillary industries.

The tabular data shows that the over the years the amount disbursed for the Jharkhand Industrial Policy 2001 has declined slowly from 7752.09 crores in 2015-16 to 1500.447 crores in 2019-20. A sharp dip can be seen in the Jharkhand Industrial Policy 2012 in terms of the amount disbursed last year. In 2018-19 the amount disbursed has been reported at 5442.54 which sharply declined to merely 433.37 crores in 2019-20. These insights suggest that the focus of the government is shifting to the latest vibrant and dynamic sectors such as textiles and apparels and the food processing sector. The reduced disbursement among other sectors is being shifted towards these sectors, showing the paradigm shift in terms of policy initiatives of the government.

**Table 8.3: Incentives disbursed according to the various industrial polices (2015 -2020)**

Year	Policy	Disbursed amount	No of industries covered
1	2	3	4
2015-16	Jharkhand Industrial Policy 2001	7752.09	27
	Jharkhand Industrial Policy 2012	2888.86	07
	Food Processing (NMPF)	200.00	03
	Total-1	10840.95	37
2016-17	Jharkhand Industrial Policy 2001	3738.76	24
	Jharkhand Industrial Policy 2012	6404.83	20
	Food Processing (NMPF)	454.81	15
	Jharkhand Food Processing Industry Policy 2015	392.06	05
	Jharkhand Feed Processing Industry Policy 2015	99.86	03
	Jharkhand Export Policy 2015	35.80	03
	Total-2	11126.12	70

Year	Policy	Disbursed amount	No of industries covered
2017-18	Jharkhand Industrial Policy 2001	2237.95	08
	Jharkhand Industrial Policy 2012	4666.92	15
	Jharkhand Food Processing Industry Policy 2015	239.69	07
	Jharkhand Feed Processing Industry Policy 2015	62.50	02
	Jharkhand Industrial Investment Promotion Policy-2016	450.00	03
	Total-3	7657.06	35
2018-19	Jharkhand Industrial Policy 2001	1200.00	02
	Jharkhand Industrial Policy 2012	5442.54	14
	Jharkhand Food Processing Industry Policy 2015	1582.09	13
	Jharkhand Feed Processing Industry Policy 2015	48.50	01
	Jharkhand Export Policy 2015	20.00	02
	Jharkhand Industrial Investment Promotion Policy-2016	4903.00	13
	Jharkhand Textile, Apparel and Footwear Policy 2016	622.94	03
	Total-4	13819.07	48
2019-20	Jharkhand Industrial Policy 2001	1500.447	07
	Jharkhand Industrial Policy 2012	433.374	09
	Jharkhand Food Processing Industry Policy 2015	2063.40	34
	Jharkhand Feed Processing Industry Policy 2015	83.018	06
	Jharkhand Export Policy 2015	42.37	04
	Jharkhand Industrial Investment Promotion Policy-2016	1522.338	11
	Jharkhand Textile, Apparel and Footwear Policy 2016	2267.188	04
	Total-5	7912.135	75

Source: Department of Industry, Government of Jharkhand

The table below shows the important industrial indicators pertaining to the number of projects, investment and employment generation. Overall a sharp increase in all

the fields can be observed. The Investment has gone up by 135% in the year 2019-20. Employment has also registered a growth of 73% in the year 2019-20.

**Table 8.4: Important Industrial Indicators of Jharkhand**

Indicators	Years				
	2015-16	2016-17	2017-18	2018-19	2019-20
No of DoP	7	16	16	12	34
Investment ( in Crores)	241.66	17828.58	734.59	1008.67	2375.40
Employment	768	17396	2663	2953	5129

Source: Department of Industry, Government of Jharkhand

**Micro, Small and Medium Enterprises (MSMEs)**

The manufacturing and services categories of enterprises have been classified into Micro, Small and Medium enterprises (MSMEs) based on their investments in plant and machinery for manufacturing enterprises and on equipment in the case of enterprises providing services. The MSME sector in Jharkhand plays a crucial role by providing large employment opportunities, industrialisation of rural areas, reducing regional imbalances etc.

Below is the classification of the manufacturing enterprises and enterprises rendering services based on investment and annual turnover.

• **Micro**

- Investment in plant and machinery or equipment: not more than Rs.1 crore
- Annual turnover : not more than Rs. 5 crores

• **Small**

- Investment in plant and machinery or equipment: not more than Rs.10crore

- Annual turnover : not more than Rs. 50 crores
- Medium
- Investment in plant and machinery or equipment: not more than Rs.50crore
- Annual turnover : not more than Rs. 250 crores

The table below illustrates the state-wise estimated number of enterprises under MSME. Uttar Pradesh registered the highest number of MSME enterprises with an estimated number of 89 lakhs, followed by West Bengal with 88 lakhs, Tamil Nadu with 49.5 lakhs and Maharashtra with 47.78 lakhs MSME. Jharkhand accounts for 15.88 lakh enterprises which contribute to only 2.5 % of the total number of enterprises at the national level. Given the small share of the number of enterprises in the state, there is a huge scope of employment generation and reducing regional imbalances by creating a conducive environment for new enterprises to be set up under the MSME. Also, within these 15.88 lakh of registered enterprises, 99% of them are micro enterprises. Only 10 thousand enterprises are small enterprises.

**Table 8.5: State wise number of MSME Enterprises**

State	Estimated number of enterprises (Number in lakh)			
	Micro	Small	Medium	MSME
Andhra Pradesh	33.27	0.13	0.00	33.87
Arunachal Pradesh	0.22	0.00	0.00	0.23
Assam	12.10	0.04	0.00	12.14
Bihar	34.41	0.04	0.00	34.46
Chhattisgarh	8.45	0.03	0.00	8.48
Delhi	9.25	0.11	0.00	9.36
Goa	0.7	0.00	0.00	0.7



State	Estimated number of enterprises (Number in lakh)			
	Micro	Small	Medium	MSME
Gujarat	32.67	0.50	0.00	33.16
Haryana	9.53	0.17	0.00	9.7
Himachal Pradesh	3.86	0.06	0.00	3.92
Jammu & Kashmir	7.06	0.03	0.00	7.09
Jharkhand	15.78	0.10	0.00	15.88
Karnataka	38.25	0.09	0.00	38.34
Kerala	23.58	0.21	0.00	23.79
Madhya Pradesh	26.42	0.31	0.01	26.74
Maharashtra	47.6	0.17	0.00	47.78
Manipur	1.80	0.00	0.00	1.80
Meghalaya	1.12	0.00	0.00	1.12
Mizoram	0.35	0.00	0.00	0.35
Nagaland	0.91	0.00	0.00	0.91
Odisha	19.80	0.04	0.00	19.84
Punjab	14.56	0.09	0.00	14.65
Rajasthan	26.66	0.20	0.01	26.87
Sikkim	0.26	0.00	0.00	0.26
Tamil Nadu	49.27	0.21	0.00	49.48
Telangana	25.94	0.10	0.01	26.05
Tripura	2.10	0.01	0.00	2.11
Uttar Pradesh	89.64	0.36	0.00	89.99
Uttarakhand	4.14	0.02	0.00	4.17
West Bengal	88.41	0.26	0.01	88.67
Andaman and Nicobar Islands	0.19	0.00	0.00	0.19
Chandigarh	0.56	0.00	0.00	0.56
Dadra & Nagar Haveli	0.15	0.01	0.00	0.16
Daman & Diu	0.08	0.00	0.00	0.08
Lakshadweep	0.02	0.00	0.00	0.02
Puducherry	0.96	0.00	0.00	0.96
	630.52	3.31	0.05	633.88

Source: NSS 73rd Round, Ministry of Micro, Small and Medium Enterprises, Government of India

MSMEs not only play a crucial role in providing large employment opportunities at a comparatively low capital cost than large industries but also help in the industrialisation of rural and backward areas and reducing gender disparity, thereby assuring more equitable distribution of income and wealth. The table below shows the gender wise distribution of employment in the MSME sector. Uttar Pradesh accounts for the

highest 14.9 % share of the total employment created under the MSMEs across India, followed by West Bengal with 12.2% and Tamil Nadu with 8.7 %. Jharkhand has 34.91 lakh people engaged in the MSME sector of which 22.36% of the employment accounts for female employment which is marginally lower than the national average of 23.86%

**Table 8.6: Gender and State wise employment in the MSME Sector**

State/UT	Employment (Number in Lakhs)		
	Female	Male	Total
Andhra Pradesh	21.01	34.98	55.99
Arunachal Pradesh	0.11	0.29	0.41
Assam	1.78	16.37	18.15
Bihar	4.79	48.26	53.07
Chhattisgarh	4.07	12.79	16.86
Delhi	2.41	20.59	23.00
Goa	0.41	1.20	1.60
Gujarat	13.71	47.44	61.16
Haryana	2.78	16.27	19.06
Himachal Pradesh	1.13	5.29	6.43
Jammu & Kashmir	1.50	9.37	10.88
Jharkhand	5.57	19.34	24.91
Karnataka	19.73	51.11	70.84
Kerala	13.77	30.86	44.64
Madhya Pradesh	10.13	38.61	48.80
Maharashtra	17.97	72.77	90.77
Manipur	1.40	1.52	2.92
Meghalaya	0.72	1.19	1.91
Mizoram	0.28	0.34	0.62
Nagaland	0.59	1.18	1.77
Odisha	8.37	24.87	33.26
Punjab	4.24	20.55	24.80
Rajasthan	8.01	38.31	46.33
Sikkim	0.14	0.31	0.45
Tamil Nadu	32.27	64.45	96.73
Telangana	15.24	24.91	40.16
Tripura	0.44	2.51	2.95

State/UT	Employment (Number in Lakhs)		
	Female	Male	Total
Uttar Pradesh	27.27	137.92	165.26
Uttarakhand	0.69	5.91	6.60
West Bengal	43.51	91.95	135.52
Andaman and Nicobar Islands	0.10	0.29	0.39
Chandigarh	0.12	1.17	1.29
Dadra & Nagar Haveli	0.07	0.29	0.36
Daman & Diu	0.02	0.12	0.14
Lakshadweep	0.01	0.02	0.03
Puducherry	0.57	1.27	1.84
	264.92	844.68	1109.89

Source: NSS 73rd Round, Ministry of Micro, Small and Medium Enterprises, Government of India

The table below illustrates the state-wise percentage share of male and female owners across the country. West Bengal ranks first with the largest number of female owners in the country with 23.42%, followed by Tamil Nadu with 10.57% and Telangana with 7.85 %. Although the percentage shares of the male and female MSME owners are close to 2.5 %, but in terms of rank,

Jharkhand ranks 11th in terms of the number of female owners. Female owners in West Bengal accounts for twice the share in MSME than the male owners. This shows that Jharkhand needs to gear up to fulfil the vision of promoting female entrepreneurship in the MSME sector.

**Table 8.7: Gender wise share of employment in MSME across states**

State/UT	Males	Females	All	Share of State in all the MSMEs with Male Owners(%)	Share of State in all the MSMEs with Female Owners (%)
West Bengal	5583138	2901324	8484462	11.52	23.42
Tamil Nadu	3441489	1285263	4726752	7.1	10.37
Telangana	1459622	972424	2432046	3.01	7.85
Karnataka	2684469	936905	3621374	5.54	7.56
Uttar Pradesh	8010932	862796	8873728	16.53	6.96
Andhra Pradesh	2160318	838033	2998351	4.46	6.76
Gujarat	2375858	826640	3202499	4.90	6.67
Maharashtra	3798339	801197	4599536	7.84	6.47
Kerala	1637853	495962	2143816	3.40	4.00
Rajasthan	2261127	380007	2641134	4.67	3.07
Madhya Pradesh	2275251	370427	2645678	4.7	2.99
Jharkhand	1250953	310388	1561341	2.58	2.51
Odisha	1567395	295460	1862856	3.24	2.38

State/UT	Males	Females	All	Share of State in all the MSMEs with Male Owners(%)	Share of State in all the MSMEs with Female Owners (%)
Punjab	1183871	224185	1408056	2.44	1.81
Bihar	3239698	168347	3408044	6.69	1.36
Haryana	831645	98309	929953	1.72	0.79
Delhi	827234	86742	913977	1.71	0.7
Manipur	86383	86604	172987	0.18	0.7
Jammu & Kashmir	624056	74785	698841	1.29	0.60
Chhatisgarh	727203	71201	798403	1.50	0.57
Assam	1128411	66665	1195076	2.33	0.54
Himachal Pradesh	329595	50368	379963	0.68	0.41
Meghalaya	72191	39462	111653	0.15	0.32
Tripura	179169	28042	207212	0.37	0.23
Puducherry	65350	27072	92422	0.13	0.22
Uttarakhand	380000	20964	400964	0.78	0.17
Nagaland	65778	20865	86643	0.14	0.17
Mizoram	20439	13698	34137	0.04	0.11
Goa	57133	10815	67948	0.12	0.09
Arunachal Pradesh	16153	6274	22427	0.03	0.05
Chandigarh	44321	5560	49881	0.09	0.04
Sikkim	20880	5036	25916	0.04	0.04
Andaman and Nicobar Islands	14302	4026	18328	0.03	0.03
Dadra & Nagar Haveli	12900	2629	15529	0.03	0.02
Daman & Diu	5880	1560	7441	0.01	0.01
Lakshadweep	1384	488	1872	0.00	0.00
ALL	48450722	12390523	60841245	100.00	100.00

Source: NSS 73rd Round, Ministry of Micro, Small and Medium Enterprises, Government of India

The District Industries Centre (DIC) has been established to promote industrialisation, specially the micro and small scale industries of the state and to implement different programmes of the state and Central Government related to the growth of MSME. The table below illustrates the contribution of the various MSME units in employment and investments. Miscellaneous manufacturing, engineering and metal

based units, repairing and services and food and allied units contributes roughly about 22%, 16%, 14% and 11%. Manufacturing, engineering and metal based units and food and allied units have registered for maximum investment. In terms of largest number of units set up, repairing services and food processing and allied fields top the list.

**Table 8.8: MSME units set up in (Jharkhand under DIC) India**

Category	No of units set up	Investment in Lakh	Employment
Paper and paper products	202	4029.00	1268
Electrical and electronics	507	10016.45	5261
Rubber and plastics	148	9381.57	2409
Livestock and leather	68	346.75	259
Food and allied	2210	41969.96	7333
Engineering and metal based	593	35294.64	10566
Textiles	940	4114.15	3026
Chemical and allied	60	2790.00	619
Glass and ceramics	163	3044.50	1100
Food allied	137	3793.42	1081
Repairing and services	2622	9503.40	9194
Miscellaneous Manufacturing	1168	97506.10	14286
Other	1400	87130.51	8128

Source: Department of Industry, Government of Jharkhand

**Prime Minister Mudra Yojna (PMMY)**

MUDRA was formed with the vision to provide integrated financial and support services for the bottom of the pyramid universe for its comprehensive economic and social development. This agency is responsible for developing and refinancing the entire Micro-enterprises sector by supporting the financial Institutions which are in the business of lending to micro and small business entities engaged in manufacturing, trading and service activities. MUDRA would form a partnership with banks, MFIs and other lending institutions at the regional level to provide micro finance support to the

micro-enterprises in the state.

With the objective of growth and development and growth in the sector of micro enterprises, the Prime Minister Mudra Yojana (PMMY) provides the following three types of loans:

- Shishu : covering loans upto 50,000/-
- Kishor : covering loans above 50,000/- and upto 5 lakhs
- Tarun : covering loans above 5 lakhs and upto 10 lakhs

**Table 8.9: Progress of different types of loans under the PMMY**

Loan Type	Details	2017-18	2018-19	2019-20
Shishu	No of Accounts	1118607	1305620	1563096
	Sanction Amount	2582.15	3563.77	4401.73
	Disbursement Amount	2498.51	3412.09	4380.98
Kishore	No of Accounts	78942	112743	136218
	Sanction Amount	1654.18	1986.43	1933.91
	Disbursement Amount	1598	1911.7	1836.38

Loan Type	Details	2017-18	2018-19	2019-20
Tarun	No of Accounts	15122	18605	21171
	Sanction Amount	1174.07	1439.03	1628.46
	Disbursement Amount	1136.54	1376.44	1549.73
Total	No of Accounts	1212671	1436968	1720485
	Sanction Amount	5410.4	6989.23	7964.11
	Disbursement Amount	5233.05	6700.23	7767.09

Source: Pradhan Mantri Mudra Yojana , Government of India

The table above shows the progress of the Pradhan Mantri Mudra Yojana in the context of Jharkhand for the past three years. It is evident from the table that there has been a clear cut upward movement in terms of the number of accounts opened, the amount sanctioned and disbursed amount. This validates the fact that the state government has been making all possible attempts to create a pro-industry environment by creating affordable credit for the small enterprises. The disbursement amount

for the overall loans has grown by 48% from 2017-18 to 2019-20. The rise has recorded the highest in the Shishu loan category, where the disbursement amount has gone up by 75.34 % from 2017-18 to 2019-20. This tremendous growth shows the state government's intentions of focusing more on the Shishu loan category units rather than on Kishore and Tarun loan categories with an objective to promote entrepreneurship among the new aspiring youths of the new generation.

**Table 8.10: State-wise Progress of the different types of loans under PMMY**

Name of the State	Shishu		Kishore		Tarun		Total	
	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount
Andaman and Nicobar Islands	296	1.13	839	25.26	598	46.73	1733	73.12
Andhra Pradesh	529001	1377.77	253887	4333.55	61613	4379.39	844501	10090.71
Arunachal Pradesh	20088	57.03	2435	35.02	765	58.51	23288	150.56
Assam	1516050	4797.85	138233	1766.81	14064	1006.94	1668347	7571.6
Bihar	6168244	18074.91	503389	5159.17	43022	3112.9	6714655	26346.98
Chandigarh	14790	41.47	6924	153.17	2599	195.52	24313	390.16
Chhattisgarh	1115562	3148.1	120936	1676.15	24520	1867.44	1261018	6691.69
Dadra and Nagar Haveli	2030	6.53	570	14.24	299	22.02	2899	42.78
Daman and Diu	308	0.62	253	6.05	205	15.69	766	22.37
Delhi	463970	1177.93	74283	1364.85	30343	2526.54	568596	5069.32
Goa	26344	77.27	9646	185.98	3050	217.22	39040	480.46

Name of the State	Shishu		Kishore		Tarun		Total	
	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount
Gujarat	1738925	5361.65	263099	4096.8	94369	4071.28	2096393	13529.73
Haryana	983706	2964.97	139504	2352.87	32707	2305.4	1155917	7623.25
Himachal Pradesh	46058	127.1	47346	1011.68	14461	1087.55	107865	2226.32
Jharkhand	1563096	4380.98	136218	1836.38	21171	1549.73	1720485	7767.09
Karnataka	4738832	14019.42	861216	9850.88	133629	5834.4	5733677	29704.7
Kerala	1788708	5603.75	353002	4640.97	36163	2679.4	2177873	12924.12
Lakshadweep	527	1.15	250	3.68	19	1.33	796	6.15
Madhya Pradesh	3063437	9130.35	391333	5173.28	103178	4274.41	3557948	18578.04
Maharashtra	4132679	12114.28	505154	7268.66	133199	8015.16	4771032	27398.1
Manipur	81858	200.56	7074	104.74	1243	88.13	90175	393.43
Meghalaya	38751	93.76	4330	77.6	1335	95.09	44416	266.45
Mizoram	13784	62.83	5514	109.67	1137	63.59	20435	236.09
Nagaland	11360	41.19	2749	59.4	973	69.25	15082	169.84
Odisha	3410033	9998.52	279463	3211.33	27080	1948.37	3716576	15158.22
Puducherry	113306	379.6	19247	234.45	6969	142.78	139522	756.84
Punjab	1083174	3319.21	163447	2543.24	34686	2743.29	1281307	8605.75
Rajasthan	2598195	8155.91	295387	5339.93	100952	5870.25	2994534	19366.09
Sikkim	14587	36.67	4297	64.76	978	70.24	19862	171.67
Tamil Nadu	6405139	21216.35	574390	7771.78	141463	5637.89	7120992	34626.02
Telangana	1213412	3707.55	176702	2693.94	45512	2585.34	1435626	8986.82
Tripura	371417	1151.37	24072	292.44	1605	111.5	397094	1555.3
Union Territory of Jammu and Kashmir	43862	83.21	94874	2183.48	16417	1203.81	155153	3470.5
Union Territory of Ladakh	577	1.24	3871	91.6	1154	81.82	5602	174.66
Uttar Pradesh	5222319	13802.3	542245	8806.14	96858	7192.93	5861422	29801.37

Name of the State	Shishu		Kishore		Tarun		Total	
	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount	No of Accounts	Disbursement Amount
Uttarakhand	236572	740.77	52104	1062.47	13320	1027.17	301996	2830.41
West Bengal	5719620	17357.91	413590	5824.68	43460	3275.71	6176670	26458.31
Total	54490617	162813.21	6471873	91427.07	1285116	75474.75	62247606	329715.03

Source: PradhanMantri Mudra Yojana , Government of India

The table above shows the state - wise distribution of loans under the PPMY. Tamil Nadu registers the highest counts of Shishu accounts opened in the country followed by Bihar and Uttar Pradesh. Jharkhand contributes 2.35% of the total loans disbursed whereas the share of Shishu loan is 2.86 % which is slightly higher than the overall loan disbursement. Under the PMMY at the national level 49.39% of the total disbursed amount belongs to the Shishu loan category, 27.73 % belongs to the Kishore loan category and 22.89% belongs to the Tarun category. In Jharkhand, the Shishu category contributes to 56.40% of the total loans disbursed followed by 23.64% by Kishore and 19.95% by Tarun. It is evident from the data that the Jharkhand government is laying more emphasis on Shishu loans.

### Prime Minister Employment Guarantee Programme (PMEGP)

The Prime Minister Employment Guarantee Programme (PMEGP) aims to generate employment opportunities through the setting up of new self-employment ventures and micro enterprises. The scheme also intends to provide

continuous and sustainable employment to a large segment of traditional and prospective artisans of the state. Another important objective is to increase the wage earning capacity of artisans and contribute to increase in the growth rate of rural and urban employment. At the state level, the scheme is implemented through the State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs). The maximum cost of the project admissible under the manufacturing sector is Rs.25 lakhs and under business while for the service sector it is Rs.10 lakhs.

The table above provides information about the progress made under the PMEGP from July 2016 to March 2020 in the field of the number of new projects received, sanctioned and disbursed. The state wise variations help to locate relatively the state's progress compared to the other states. Jharkhand has a share of 2.56 % in the total projects received whereas in terms of the margin money only 2.1% shares fall under the state. Jharkhand has a clear scope of improvement in this field to compete with the top states.

**Table 8.11: State-wise PMEGP Progress**

District	Nos. of Projects Received	MM Involve (In Lakh) On Received	Nos. of Projects Sanctioned	MM (in Lakh) On Sanction	Nos. of Projects Disbursed	MM (in Lakh) on Disbursement
Andaman & Nicobar Islands	1304	1788.57	670	889.57	633	830.24
Andhra Pradesh	54560	182390.29	6447	26591.80	5650	22730.27
Arunachal Pradesh	4123	10728.05	616	1415.59	582	925.25
Assam	128713	201842.67	11333	13999.91	10268	11604.4
Bihar	83194	256054.9	9874	31770.63	9088	26784.56
Chandigarh	696	1347.21	93	217.64	87	184.6



District	Nos. of Projects Received	MM Involve (In Lakh) On Received	Nos. of Projects Sanctioned	MM (in Lakh) On Sanction	Nos. of Projects Disbursed	MM (in Lakh) on Disbursement
Chhattisgarh	41790	92708.20	8904	21910.92	8188	18547.50
Dadra and Nagar Haveli	72	262.23	13	40.82	6	13.31
Daman And Diu	46	176.6	10	39.30	6	15.98
Delhi	40887	63594.00	379	537.96	336	430.82
Goa	692	2046.07	220	649.62	206	595.59
Gujarat	52208	355129	10052	72923.38	9390	67973.49
Haryana	68258	164028.14	6767	17581.46	6258	15083.91
Himachal Pradesh	16238	43731.08	4429	12116.1	4163	11042.47
Jammu and Kashmir	64647	141996.6	18634	36882.01	16384	31282.41
Jharkhand	43147	113859.07	5552	14931.05	5221	12333.72
Karnataka	145735	431930.66	11030	37461.37	8759	26626.98
Kerala	23973	58405	7371	17115.02	6809	14589.87
Ladakh (Ut)	2998	11567.23	1126	3935.71	1004	3167.26
Lakshadweep	31	99.72	0	0	0	0
Madhya Pradesh	33005	111465.19	7675	32145.43	7133	28756.84
Maharashtra	148504	465934.45	15917	50820.6	13850	36638.63
Manipur	31735	104666.88	3813	10919.48	3573	6502.27
Meghalaya	4814	10351.26	1152	2086.56	1033	1514.21
Mizoram	9498	15783.78	2618	3577.23	2458	3236.9
Nagaland	9903	40708.92	3245	13182.70	3119	7640.16
Odisha	64646	173205.80	9685	27962.67	9065	23376.59
Puducherry	3184	4660.83	204	427.25	182	344.98
Punjab	46016	84130.26	5278	14432.06	4807	12710.6
Rajasthan	65450	164715.27	8463	27295.16	7852	23107.41
Sikkim	743	1865.95	200	443.74	188	356.34
Tamil Nadu	90643	232174.83	17207	45578.73	15610	38858.89
Telangana	75809	224689.92	5574	20219.43	4988	17062.73
Tripura	24662	50227.97	4471	9256.13	4194	7563.84
Uttar Pradesh	203167	628044.08	18970	69183.84	17199	59491.35
Uttarakhand	22573	44859.05	6720	13201.31	6484	11853.31
West Bengal	74347	210431.51	6426	23661.4	5694	19730.30
	1682011	4701601.37	221138	675403.64	200467	563508.03

Source: PMEGP portal report (July 2016 to March 2020)

The table given throws light on the achievement made so far under the PMEGP in the fields of physical and financial targets. The progress has not been consistent over the years. Some financial years registers higher growth in the margin money disbursed and some years report negative growth as well. As the data for the financial year 2020-21 is provisional hence no concrete

conclusion can be drawn. The data shows the variations between target and achievement both in the cases of margin money disbursed and the number of projects sanctioned and disbursed. The number of achieved physical targets has declined from 1839 in 2015-16 to 1534 IN 2019-20. However in the same period margin money disbursed has increased by 4.43%.

**Table 8.12: Achievement under the PMEGP**

Year	Target		Achievement	
	Physical	Financial ( Margin Money) (In Lakh)	Physical	Financial ( Margin Money) (In Lakh)
1	2	3	4	5
2015-16	1913	3825.60	1839	3559.74
2016-17	1216	2431.59	801	1704.31
2017-18	1035	2070.37	1096	2407.73
2018-19	2477	6193.49	1790	4505.78
2019-20	2762	8285.02	1534	3717.64
2020-21 (Till Oct.2020)	1863	5589.11	312	896.48

Source: Department of Industry, Government of Jharkhand

The table below illustrates the district wise progress and status of the Pradhan Mantri Employment Guarantee Programme. It is evident from the table that there is a huge variation within the districts pertaining to the margin money disbursed. Districts like Dhanbad,

Hazaribagh, Bokaro, Purbi Singhbhum account for 8.92%, 8.94%, 7.41% and 7.68% of the total margin money disbursed till march 2020. Latehar has registered the lowest contribution with merely 0.7% of the margin money disbursed in the total outlay of money.

**Table 8.13: District-wise PMEGP Progress**

Districts	Nos. of Projects Received	MM Involve (In Lakh) On Received	Nos. of Projects Sanctioned	MM (in Lakh) On Sanction	Nos. of Projects Disbursed	MM (in Lakhs) on Disbursement
Bokaro	2388	7478.70	358	1183.84	327	913.93
Chatra	1228	3398.73	141	422.04	137	345.72
Deoghar	1871	3814.18	291	609.41	283	525.25
Dhanbad	3046	8751.62	393	1290.46	372	1100.81
Dumka	1908	3918.15	394	871.83	376	772.35
Garhwa	768	1941.65	93	231.04	93	204.75
Giridih	1978	5051.1	242	632.87	228	488.60
Godda	2233	4556.72	286	585.99	272	542.52
Gumla	844	2448.33	134	354.42	126	305.99
Hazaribagh	2783	9595.89	378	1360.91	363	1103.37
Jamtara	1097	1496.88	188	278.7	177	212.33
Khunti	1087	2784.72	154	343.26	140	248.47
Koderma	1229	3334.32	194	549.20	187	481.75
Latehar	519	1168.34	67	114.3	60	95.82

Lohardaga	1276	2806.18	154	253.55	144	221.49
Pakur	1235	2615.65	189	414.27	178	341.05
Palamu	2576	6593.90	237	690.49	227	609.49
Pashchimi Singhbhum	1313	3548.29	167	554.11	159	464.18
Purbi Singhbhum	3262	7879.75	419	1171.36	389	947.97
Ramgarh	2147	6395.71	228	636.28	208	539.89
Ranchi	4299	14378.88	327	1169.52	297	875.53
Sahibganj	1879	4641.42	265	691.33	250	583.3
SaraikelaKharsawan	1606	3780	174	380.24	154	295.5
Simdega	575	1479.97	79	141.61	74	113.65
	43147	113859.07	5552	14931.05	5221	12333.72

Source: PMEGP portal report (July 2016 to March 2020)

**Table 8.14: Achievement under the PMEGP**

Year	KVIC		KVIB		DIC	
	Physical	Financial (Margin Money) (In Lakh)	Physical	Financial (Margin Money) (In Lakh)	Physical	Financial (Margin Money) (In Lakh)
1	2	3	4	5	6	7
2016-17	158	404.60	185	458.64	458	841.07
2017-18	206	494.97	329	871.39	561	1041.37
2018-19	327	942.58	483	1382.10	980	2181.21
2019-20	185	580.53	317	865.08	1032	2272.03
2020-21 (Till Oct.2020)	36	101.70	72	278.96	204	515.82

Source: Department of Industry, Government of Jharkhand

Khadi & Village Industries Commission (KVIC). The major thrust area of the KVIC includes providing employment in the rural areas, producing saleable articles and creating self-reliance in the people of the rural areas. Khadi activity is considered as a potential tool for the creation of employment opportunities on the doorstep of the rural artisans at a very low capital investment. It is evident from the table that in DIC both the number of projects and the margin money disbursed have consistently increased over the years. Both have more than doubled between 2015-16 and 2019-20. However, in the case of KVIC and KVIB the growth is not consistent over the years. The financial year 2018-19 seems to be the best year for the PMEGP under the KVIC and KVIB as the margin money and physical achievement were the highest.

### **Scheme of Fund for the Regeneration of Traditional Industries (SFURTI)**

The Scheme of Fund for Regeneration of Traditional Industries (SFURTI) is an initiative by the Ministry of MSME to promote cluster development. The Khadi and Village Industries Commission (KVIC) is the nodal Agency for the promotion of cluster development for Khadi. Below are the key objectives of the SFURTI:

- To organize the traditional industries and artisans into clusters to make them competitive and provide support for their long term sustainability
- To provide sustained employment for the traditional Industry-artisans and rural entrepreneurs
- To enhance the marketability of the products

of clusters by providing support to the new products, promote creativity in the sphere of design and improved packaging, and also for the improvement of the marketing Infrastructure

- To equip traditional artisans of the associated clusters with improved skills and capabilities through training and exposure visits
- To make available common facilities and improved tools and equipment for artisans
- To strengthen the cluster governance systems with the active participation of the stakeholders, so that they are able to gauge the emerging challenges and opportunities and respond to them in a coherent manner
- To build innovative and traditional skills, improved technologies, advanced processes,

market intelligence and new models of public-private partnerships, so as to gradually replicate similar models of cluster- based regenerated traditional Industries

The table below illustrates the undergoing projects of Jharkhand in the various districts with the objective of cluster-development under the SFURTI initiative. The state government with the help of the SFURTI scheme started with industrial clusters in *agarbatti*, silk areas in 2016-17. The positive spill-over of this initial projects led to many new project set up by 2020-21. Currently, cluster development projects are operational in fields such as food processing, gold and silver jewellery, bamboo handcrafts etc. These steps will have a direct impact on the livelihood of the rural areas, specially the marginal artisans from the scheduled tribes and scheduled castes.

**Table 8.15: Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Detailed Project Report (DPR) Details (As on 17 Nov 2020)**

Name of Cluster	Product Category	Product Sub Category	Name of Agency	Financial Year	Name of District	No. Of Artisans	Total Project Cost (Rs. in Lakh)	Approval Cost (Rs. in Lakhs)
Annatdev Woodcraft Producer Company Limited			NIMSME	2019-2020	BOKARO	150	259.43	238.84
Bamboo Crafts Cluster			NIMSME	2019-2020	RANCHI	698	429.35	393.76
Basantrai Badge and Embroidery Producer Company Limited	Defence related badges, all types of jury products	All types of embroidery related works	NIMSME	2019-2020	GODDA	207	236.25	217.5
Bishnugarh Brass & Bronze Cluster			KVIC	2020-21	HAZARIBAGH	832	460.45	421.9
Bundu Lac Farming & Processing Cluster			NIMSME	2019-20	RANCHI	500	578.7	480
Gold & Silver Jewellery Cluster			NIMSME	2019-20	RAMGARH	500	365.94	310.54
Gumla Food Processing	Food Processing	Honey& Other food items	KVIC	2016-17	BOKARO	800	318.34	254.24

Name of Cluster	Product Category	Product Sub Category	Name of Agency	Financial Year	Name of District	No. Of Artisans	Total Project Cost (Rs. in Lakh)	Approval Cost (Rs. in Lakhs)
Honey Bee-keeping Cluster	Food Processing	Honey	NIMSME	2019-20	LOHARDAGA	250	187.75	146.45
Kariyatpur Brass Manufacturing Private Limited			NIMSME	2019-20	HAZARIBAGH	266	262.3	241.58
Koderma Agarbatti Cluster Jharkhand	Agarbatti	Agarbatti	KVIC	2016-17	KODERMA	250	152.33	127.44
Lac and other NTFP Processing Cluster	NTFP	Lac, Chironji, Tamarind	IMEDF	2019-20	GUMLA	500	162.19	149.32
Santhal Pragana Silk Cluster Jharkhand	Handicraft	Silk	KVIC	2016-17	DEOGHAR	681	182	150

Source: Scheme of Fund for Regeneration of Traditional Industries(SFURTI), MSME, GOI <https://sfurti.msme.gov.in/SFURTI/Reports/DPR.aspx>

Skill upgradation and industrial institutional interaction to identify skill sets required for the industry are the key thrust areas for increased productivity and sustainable industrial growth. The table below shows the progress made so far in diploma courses. It can be observed that

there has been a dip in the number of trainees from 2013-17. This is certainly not an encouraging sign and thus emphasis should be given to industrial training to enhance the benefit of higher productivity.

### Box 8.1: Electronic Manufacturing Cluster in Jamshedpur

The Jharkhand government is all set to inaugurate and give eastern India its first and biggest Electronic Manufacturing Cluster in Adityapur Industrial Area near Jamshedpur. The EMC project is expanded across 82 acres of land, out of which 49 acres of land will be allocated to 51 electronic manufacturing units. The project primarily being promoted by JIADA is being built at a total cost of Rs. 186 crores with a support of Rs. 41.48 crores from the central government under the Electronic Manufacturing Scheme. As per the JIADA authority the land price at EMC is quoted at Rs 90 Lakh/acre, but to felicitate investors and create employment opportunities the land block is being allotted at a subsidy of 50 per cent.

So far 23 units have been allotted land in the EMC to start their own units and the process of providing land to 4 units is underway. The factory is being built by 23 entrepreneurs. If all the entrepreneurs in the Electronic Manufacturing Cluster establish their units, then about 20 thousand direct and about 25 thousand indirect jobs will be created and an investment of about 500 crore rupees will be ensured in Jharkhand.

The government is primarily aiming to attract electronic chip making companies. Apart from chip making units, space will also be provided for the manufacturing of LED TVs, LED bulbs and electronic parts used in mobile and automobiles.

The EMC area consists of the flatted factories, testing centres, truck parking, school, mall, health centres, employee hostels, restaurants, etc. Each unit has been provided with electricity and water supply for the workers working at the production unit.

**Table 8.16: Progress in diploma courses Under Tool Room & Training Centre, Ranchi & Dumka**

Year/ Batch	No of Trainees
2011-15	92
2012-16	97
2013-17	100
2014-18	78
2015-19	74

Source: Department of Industry, Government of Jharkhand

**Table 8.17: Other Skill Development courses Under Tool Room & Training Centre, Ranchi, Dumka & Gola**

Year	No. of Trainees
2015-16	1510

2016-17	2029
2017-18	1974
2018-19	2100
2019-20	2307

Source: Department of Industry, Government of Jharkhand

The table above illustrates the year wise number of trainees registered under other skill development courses. The number of trainees over the years has increased to 53% from 2015-16 to 2019-20. The numbers have been pretty much consistent over the years except for the year 2017-18. However, the evidence suggests that tailor made small courses pertaining to specific fields are preferred over the 4 year diploma courses.

### Box 8.2: Plastic Park, Deoghar

The Union Ministry of Chemicals and Fertilizers has approved the proposal of setting up of a Plastic Park in Deoghar District, Jharkhand. The project comes under the authority of Jharkhand Industrial Infrastructure Development Corporation (JIIDCO). The project will be set up at cost of Rs.120 crores in an area of 150 acres. Moreover, it will also set up a Central Institute for Plastic Engineering & Technology (CIPET) and Plastic Recycling.

The Plastic Park will manufacture a range of polymer products including woven sacks, moulded furniture, water tanks, bottles, pipes mosquito nets, etc. It will have a great potential for attracting investors for setting up an ecosystem for the plastic industry and generate employment opportunities for the local populace.

The project is likely to provide a direct generation of employment to about 6000 people and indirect employment to over 30000 people. Jharkhand government will provide land and building infrastructure for this project and also to set up the Central Institute for Plastic Engineering & Technology (CIPET) alongside the park.

## Mining

Jharkhand is endowed with a variety of mineral wealth accounting for nearly 40 per cent of the total national stock. It is the sole producer of coking coal, uranium and pyrite and ranks first in the production of coal, mica, kyanite and copper in India. Due to its large mineral reserves, mining and mineral extraction are the major industries and the leading sub-sectors in the industrial

sector. Jharkhand's wide mineral resources make mining, metals, and related sectors especially lucrative for investments. However in the last few years the contribution of mining in industry has declined from 30.16 % in 2015-16 to 21.34% in 2019-20. The reduced share in mining has mainly shifted to the manufacturing sector.

**Table 8.18: Status of mineral deposits of Jharkhand**

Minerals	Quantum (000 tonnes)	Location/Uses
Apatite	3070	Singhbhum/ Mineral Fertilizers, Gem stones
Asbestos	40	Roroburu, Singhbhum/ Pipes, Sheets, Gloves, Ropes
Barytes	15	Singhbhum/ Hydrated Alumina
Bauxite	68135	Palamu, Ranchi, Gumla, Lohardaga/ Alum, Aluminium, Refractory industry, Imery
China Clay	45930	Lohardaga, Ranchi, Dumka, Sahibganj, Singhbhum/ Crockery, glass
Chromite	334	Singhbhum/ Chrome magnesite refractory
Coal	6208485	Jharia, Bokaro, Karanpura, Hutur, Auranga, Daltonganj, Deoghar, Rajmahal Coal Fields
Cobalt(mt)	9.00	Singhbhum/ Extraction of Cobalt Oxide
Copper Ore	108690	Singhbhum, Giridih/ Copper
Dolomite	29864	Palamu, Garhwa/ Cements, Magnesia, Building Stone
Feldspar	5152	Dumka, Hazaribagh, Deoghar/ Crockery Wares, Glazed Tiles, Refractories
Fireclay	50462	Dhanbad, Hazaribagh, Palamu, Bokaro, Giridh, Ramgarh/ Firebricks, Stoneware crockeries
Garnet	72	Hazaribagh/ Beads, as gemstone
Gold Ore	7.20	Ranchi, Singhbhum/ Gold
Granite ('000 cm.m)	19105	Dumka, Godda, Deoghar, Ranchi, Daltonganj/ Granite Tiles
Graphite	389678	Palamu/ Graphite powder, pencils, crucibles
Iron Ore	308326	Singhbhum, Palamu/ Iron
Kyanite	90	Singhbhum/ High Alumina Refractories
Limestone	964917	Hazaribagh, Santhal Pragana, Palamu, Singhbhum, Ranchi/ Lime, Fertilizer, Cement
Manganese Ore	2363	Singhbhum/ Manganese
Mica	13554	Koderma, Giridh, Hazaribagh/ Insulation Bricks, Mica Powder
Nickel Ore	9.00	Singhbhum/ Nickel

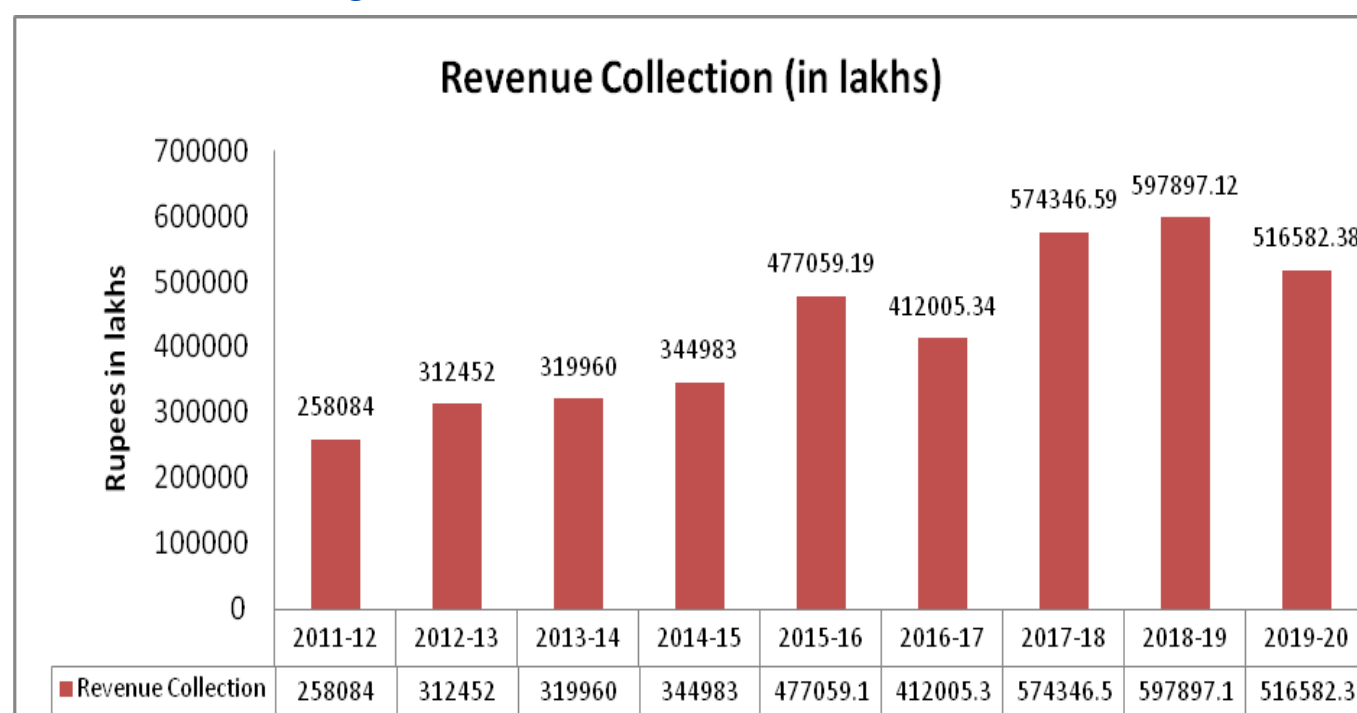
Minerals	Quantum (000 tonnes)	Location/Uses
Quartz (silica sand)	136429	Singhbhum, Dumka, Hazaribagh, Deoghar, Palamu, Sahibganj/ Glass, Crokery Ware, Glaze, Acid Resistant Bricks and Tiles
Quartzite	219842	Singhbhum/ Gemstone
Talc/Stealite/Soapstone	289	Singhbhum, Giridh/ Talcom Powder, Wall Tiles, Electrical Insulators, Cookware
Vermiculate (t)	15024	Singhbhum/ Insulation Bricks

Source: Department of Industry, GOJ

The table above shows the current status of mineral deposits in Jharkhand with their respective locations. Jharkhand has rich mineral reserves with chief minerals being coal with 6208485 thousand tonnes, copper ore-108690 thousand tonnes, iron ore-308326 thousand

tonnes, graphite 389678 thousand tonnes, bauxite 68135 thousand tonnes, limestone-964917 thousand tonnes, quartz-136429 thousand tonnes and quartzite 219842 thousand tonnes to name only a few.

**Figure 8.3: Revenue collected from the different mines**



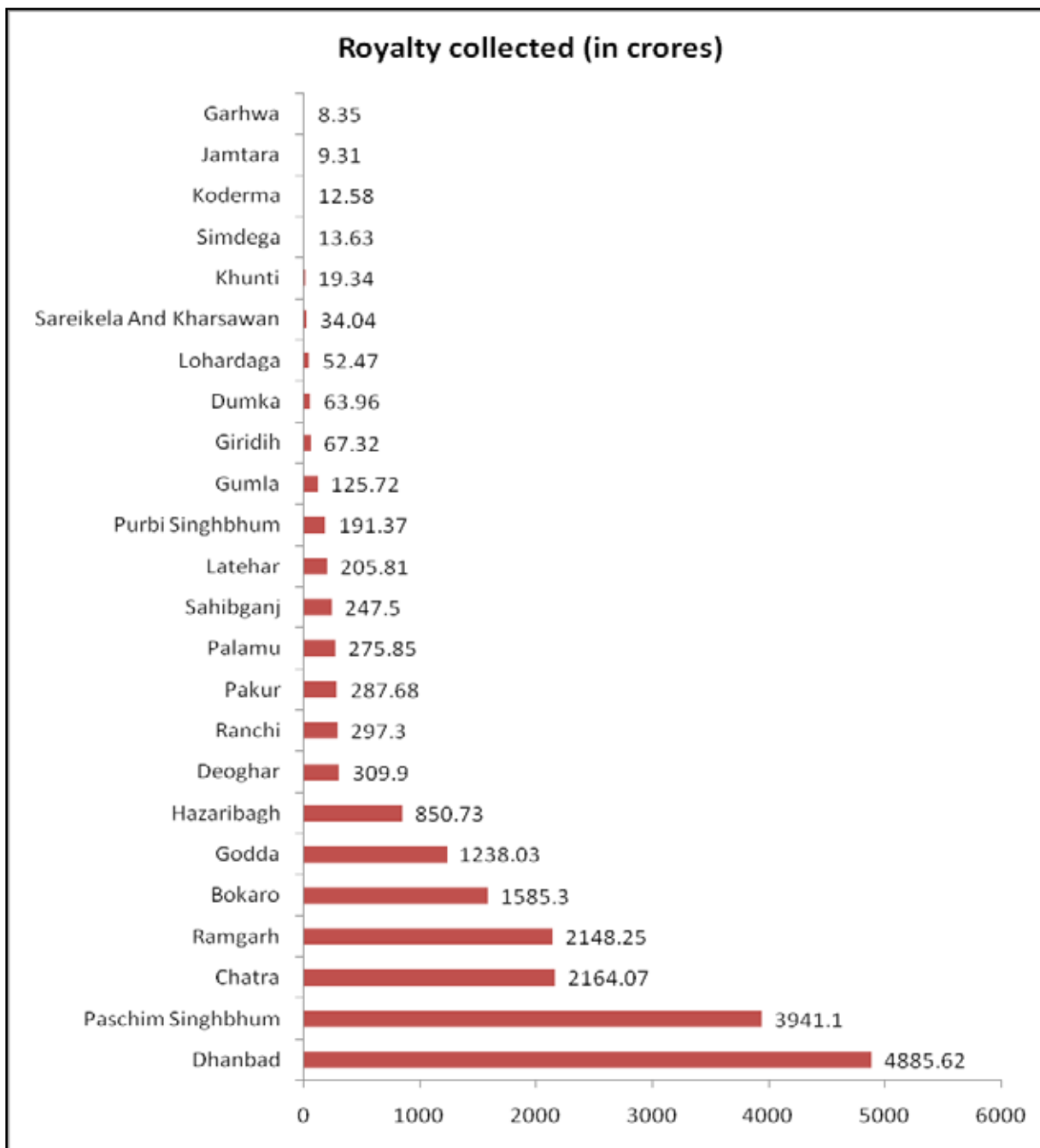
Source: The Department of Mines and Geology, Government of Jharkhand

The figure above depicts the revenue collected by the state government from all the mines of Jharkhand. The trend for the last 7-8 years has been upward, however there were instances when the revenue collection fell down. But for the consecutive years the revenue collection has not declined even once. Overall, it seems that collection from the mines boost the overall revenue collection of the state. Higher collection in a particular financial year corresponds to a higher extraction of minerals in that year and an overall larger production.

The figure above shows the district wise royalty collected from the operational mines in Jharkhand. Dhanbad being the coal mining hub of Jharkhand, registers 25.66 % of the total royalty collected in the state, followed by West Singhbhum with 20.70 % share, Chatra with 11.36% and Ramgarh with 11.28% share in the total revenue collected.



Figure 8.4: District wise royalty collected



Source: The Department of Mines and Geology, Government of Jharkhand

**Sericulture, Handloom and Handicraft Sector**

Sericulture is one of the key employment-generating sectors in the state and its growth has a massive employment generation potential, particularly in the rural areas. Jharkhand is the largest producer of Tasar silk (a non-mulberry silk) in the country, with 76.4% share in the total output. The backward linkages of the sector to the rural economy give huge opportunities to millions of farmers, artisans, handloom and handicraft manufacturers. The sector is perfectly aligned with the

Make in India, Skill India etc. In order to maintain the competitive edge and give special thrust to the sector, Jharkhand Silk, Textile and Handicraft Development Corporation (JHARCRAFT) was established in 2006 to provide support in design, training, entrepreneurship development, marketing, raw material support in a clustered and organized manner by grouping local artisans, self-help groups and NGOs involved in similar activities.

The table below illustrates the progress made so far in sericulture, handloom and the handicraft sectors. The production of tasar raw silk has increased by 15.33% from 2015-16 to 2019-20. The number of vacancies for the one year certificate course has also increased from 45 to 60, 2017-18 onwards. The preservation of tasar seed

cocoon has also increased from 55.40 lakhs to 88.83 lakhs registering 60.34% growth over the years. Basic seed production has also gone up from 6.83 lakhsto 18.23 lakhs. Tasar commercial seed production has declined drastically from 225.61 lakhs to 81.53 lakhs.

**Table 8.19: Progress of Sericulture, Handloom and Handicraft sector**

Sector	Name of Scheme	2015-16	2016-17	2017-18	2018-19	2019-20
A. Sericulture Sector	Production of Tasar Raw Silk (in MT)	2,281	2,630	2,217	2,372	2,694
	Training of Improved Techniques provided to Sericulture Farmers (in Nos.)	14,475	14,715	7,000	9,925	6,625
	One Year Certificate Course Training (in Nos.)	45	45	60	60	60
	Preservation of Tasar Seed Cocoon (in Lakh)	55.40	76.55	84.70	89	88.83
	Basic Seed Production (in Lakh)	6.83	10.98	15.21	16	18.23
	Basic Seed Rearing &Tasar Commercial Seed Production (in Lakh)	225.61	206.81	205.65	167.72	81.53
	Development of Mulberry Sericulture, Plantation and Equipment Support (in Acres)	-	-	154	72	92
	Crop Insurance of Tasar Farmers (in Nos.)	-	-	20,000	20,000	-
	Support for connectivity under KrishakSambadSuvidha Scheme (in Nos.)	4,231	8,740	20,022	20,000	8,000
	Postgraduate Diploma Course Training (in Nos.)	04	09	10	08	07
B. Handloom Sector	One Year Training in Weaving (in Nos.)	144	144	142	128	99
	Computer Aided Design Training with the help of C-DAC (in Nos.)	400	400	400	400	-
	Two months Training in Weaving & Dyeing (in Nos.)	1,600	1,800	1,040	1,020	4,250
	Strengthening of Primary Weaver Cooperatives- construction of Worksheds (in Nos.)	46	40	-	-	-

Sector	Name of Scheme	2015-16	2016-17	2017-18	2018-19	2019-20
C. Handicraft Sector	Two months improved Training in different Handicraft Trades (in Nos.)	2,280	2,288	2,414	2,545	1,073

Source: Directorate of Handloom, Sericulture & Handicraft, Government of Jharkhand

Jharkhand Silk Textile and Handicraft Development Corporation Ltd (JHARCRAFT) in the state is responsible for promoting post cocoon sericultural activities from cocoon to fabric for the enhancement of livelihood opportunities amidst the rural and tribal population. Jharcraft provides raw material like silk cocoons to reelers and buy back of the silk yarn. Further, the silk yarn is supplied to weavers and the woven fabric is procured back. Jharcraft provides a platform for learning and skill upgradation to the weavers specially the female weavers which further leads to women empowerment. Jharcraft also envisages to boost the manufacture of sophisticated and intricate handicrafts in cane and bamboo work, wood carving, stone ware, brass ware, lac based handicrafts, terracotta, etc.

Handloom has both forward and backward linkages with the other sectors. Since Jharkhand is mostly an agrarian state, where a major section of demography relies on

agricultural activities, the significance of the handloom sector becomes more critical. The Handloom sector has an immense employment potential. The handloom sector is largely household-based, carried out with labour contributed by the entire family mainly by the women which directly addresses the issue of women empowerment.

The table below is derived from the handloom census 2019-20 done by the Ministry of textiles, government of India. It is evident from the table that the majority of handloom workers are from rural areas. Overall the number of female handloom household workers accounts for 51.6% of the total workers within which 77.8% of female household workers reside in the rural areas. So, the census data clearly aligns with the notion that the handloom sector brings women empowerment and reduces regional imbalances.

**Table 8.20: Total workforce by the type of handloom workers and gender**

Location	Male		Female		Transgender	
	Weavers	Allied Worker	Weavers	Allied Worker	Weavers	Allied Worker
Rural	6691	2123	3751	5230	0	2
Urban	1030	1037	892	1741	0	0
Total	7721	3160	4643	6971	0	2

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

The table below illustrates the religion wise distribution of handloom household workers. It is evident from the data that the majority of handloom worker belongs to the Muslim community. According to this census data in

Jharkhand more than 78% of the handloom household workers are Muslims, within which 78% of the workers, i.e. more than 72% reside in the rural areas.

**Table 8.21: Distribution of handloom worker households by religion**

Location	Hindu	Muslim	Jain	Sikh	Christian	Buddhist	Zoroastrian	others	Total
Rural	3062	9361	0	3	16	0	1	139	12582
Urban	334	3546	1	5	7	0	0	3	3896
Total	3396	12907	1	8	23	0	1	142	16478

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

The table below describes the distribution of handloom worker households according to social group i.e. caste category. According to the census data 69% of the household-workers are from other backward castes,

followed by the scheduled tribes with a share of 18% and the scheduled castes with the share of 12%. Except for the other caste categories, the majority of other social group workers are from the rural areas.

**Table 8.22: Distribution of handloom worker households by social groups**

Location	Scheduled castes (SCs)	Scheduled tribes (STs)	OBC	Others	Total
Rural	1937	2823	7743	79	12582
Urban	39	225	3493	139	3896
Total	1976	3048	11236	218	16260

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

The table below describes the distribution of income of the handloom households from all sources. According to the table below 68.04% of the households have monthly earning of less than 5000 and 89 % of the households have an earning of less than 10000. The household

workers earning less than 10000 per month are mostly from the rural areas with a share of 78%. This shows the regional disparity in income between the rural and the urban areas

**Table 8.23: Distribution of handloom households according to income from all sources**

Location	Less than 5000	5001-10000	10001-15000	15001-20000	20001-25000	25001-50000	50000-100000	Above 100000	Total HH
Rural	8319	3252	67	1	256	676	8	3	12582
Urban	2894	331	11	4	70	583	2	1	3896
Total	11213	3583	78	5	326	1259	10	4	16478

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

The table below illustrates the distribution of income of the handloom households only from handloom related activities. When the income from all sources was considered, it was found that 68.04% of the households have a monthly income of less than 5000 but the moment only handloom related activities are considered for income generation the percentage of household earnings

rise to 96%. This clearly means that the livelihood of the handloom workers is not solely dependent on earnings from handloom related activities. This could also mean that as the prospect of income is not lucrative in this sector, this work may or may not be their primary occupation.

**Table 8.24: Distribution of handloom households according to income from handloom related activities**

Location	Less than 5000	5001-10000	10001-15000	15001-20000	20001-25000	25001-50000	50000-100000	Above 100000	Total HH
Rural	12171	363	46	0	0	2	0	0	12582
Urban	3786	106	2	0	1	1	0	0	3896
Total	15957	469	48	0	1	3	0	0	16478

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

The table below provides information about the educational background of handloom workers. As per the census data, 25% of the handloom workers have reported that they have never attended school; within this are 25% uneducated workers and 77% reside in the rural areas. Only 30.24% of the workers have an educational qualification equal and above the middle class schooling.

Under the PMEGP, there is a provision of loan for people with an educational qualification above class 8; if this is the case, then 70% of the household workers are not eligible for the loans. To bridge the information asymmetry, education definitely has a critical role to play.

**Table 8.25: Number of handloom workers by their level of education**

Location	Never attended school	Below Primary	Primary	Middle	High school/secondary	higher Secondary	Graduation & Above	Total
Rural	4376	4440	3626	2383	1657	963	352	17797
Urban	1279	1180	792	649	441	238	121	4700
Total	5655	5620	4418	3032	2098	1201	473	22497

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

The table below provides information about the employment status of the handloom workers. Around 44% of the handloom workers are independent, 34.9% work under the master weaver and roughly 20% of

the workers are working with organised sector such as KVIC, KVIB, handloom development corporation and co-operative society.

**Table 8.26: Number of handloom workers according to employment status**

Location	Independent	Under master weaver	Under khadi & village Industries commission/board	Under state Handloom Development Corporation	Under co-operative society	Total
Rural	9143	5960	216	2124	354	17797
Urban	876	1898	7	218	1701	4700
Total	10019	7858	223	2342	2055	22497

Source: Handloom census 2019-20, Ministry of Textiles, Government of India

### Electricity, Gas and Utility Sector

The Electricity, gas and utility is one of the important sub-sectors of the industry. The performance of this sector sets the tone for the development of other sectors in the economy. Better infrastructure of electricity is one of the prerequisites for the sustainable growth of all the

sectors. The contribution of electricity, gas and other utilities has declined from 4.76% in 2015-16 to 2.66% in 2017-18 and then it rises to 3.66% in 2018-19 and then further declined to 3.63% in 2019-20. The growth in this sector hasn't been consistent so far.

### Box 8.3: 1600 MW Coal Based Thermal Power Project

The Coal-Based Thermal Power Project with an installed capacity of 1600-MW is scheduled to complete by the end of 2022 in the state of Jharkhand which is being developed for the supply of 1,496 MW to the Bangladesh Power Development Board (BPDB). In March last year, the government had approved a Rs 14,000-crore special economic zone (SEZ) project of Adani Power in Jharkhand, which will export power to Bangladesh.

The Adani Power (Jharkhand) Ltd has sought an approval for the setting up of sector-specific SEZ for power at villages -- Motia, Mali, Gaighat and adjacent villages in Godda the district, of Jharkhand over an area of 425 hectares.

**Table 8.27: Installed capacity (in MW) of power utilities in Jharkhand**

Ownership Sector	Mode wise breakup								Grand Total
	Thermal					Nuclear	Hydro	RES (MNRE)	
	Coal	Lignite	Gas	Diesel	Total				
State	420	0	0	0	420	0	130	4.05	554.05
Private	730	0	0	0	730	0	0	34.95	764.95
Central	393.74	0	0	0	393.74	0	61	0	454.74
Sub-Total	1543.74	0	0	0	1543.74	0	191	39	1773.74

Source: Central Electricity Authority (CEA), Annual Report 2019-20

The table above shows the existing installed capacity of the various power utilities in Jharkhand along with the ownership sector. Of the installed capacity currently, the private sector has the highest share of 43.12%, followed by the state government with a share of 31.23% and the Central Government with a share of 25.63%. Thermal coal turned out to be the highest contributor with 87% of the installed capacity followed by the hydro sector with 10.7%. More than 95% of the total installed capacities from the private owners belong to the thermal coal mode and the rest is renewable energy sources.

### Ease of Doing Business

The government of Jharkhand has accorded top most priority to adopt the best practices thereby creating an investor friendly environment in the state to facilitate investments. Jharkhand Single Window Clearance Act 2015 focuses to improve the ease of doing business in the state. This is being facilitated by providing accelerated and time bound grant of various licenses, permissions and approvals, promoting industrial development and facilitating new investments as well as by simplifying

the regulatory framework by reducing procedural requirements and rationalising documents.

The lead subcomponents of the ease of doing business are getting electricity, trading across borders, whereas the main laggards are enforcing contracts, registering property, revoking insolvency and paying taxes. The ease of the business Index is based on the implementation of the Business Reform Action Plan (BRAP) recommended by the Department of Industrial Policy and Promotion (DIPP) to all the states and Union Territories. The table below provides information about the state-wise score and rank obtained in the ease of doing business. At present, Andhra Pradesh ranks first with a score of 98.3. Jharkhand has performed reasonably well in the ease of doing business with a score of 98.05 bagging the 5th position overall. The performance has been slightly inconsistent as the state had ranked third in the year 2014 and then plunged to the 7th rank in 2016. Some consistency and an improved score will definitely make the state more lucrative for investment in the upcoming days.

**Table 8.28: State-wise Ease of Doing Business Rank**

State-wise Ease of Doing Business Rank							
State/Union Territory	2015		2016		2017		2019
	Score	Rank	Score	Rank	Score	Rank	Rank
Andhra Pradesh	70.12	2	98.78	1	98.3	1	1
Arunachal Pradesh	1.23	32	0.30	31	-	34	29
Assam	14.48	22	14.29	24	84.75	17	20
Bihar	16.41	21	75.82	16	81.91	18	26
Chhattisgarh	62.45	4	97.32	4	97.31	6	6
Goa	21.74	19	18.15	21	57.34	19	24
Gujarat	71.14	1	98.21	3	97.99	5	10
Haryana	40.66	14	96.95	6	98.06	3	16
Himachal Pradesh	23.95	17	65.48	17	87.9	16	7
Jammu and Kashmir	5.93	29	0.30	31	32.76	22	21
Jharkhand	63.09	3	96.57	7	98.05	4	5
Karnataka	48.50	9	88.39	13	96.42	8	17
Kerala	22.87	18	26.97	20	44.82	21	28
Madhya Pradesh	62.00	5	97.01	5	97.3	7	4
Maharashtra	49.43	8	92.86	10	92.88	13	13
Manipur	-	-	1.19	28	0.27	32	29
Meghalaya	4.38	30	0.30	31	-	34	29
Mizoram	6.37	28	0.89	29	3.66	30	25
Nagaland	3.41	31	1.49	26	14.16	28	29
Odisha	52.12	7	92.73	11	92.08	14	29
Punjab	36.73	16	91.07	12	54.36	20	19
Rajasthan	61.04	6	96.43	8	95.7	9	8
Sikkim	7.23	27	0.60	30	0.14	33	29
Tamil Nadu	44.58	12	62.80	18	90.68	15	14
Tripura	9.29	26	16.67	22	22.45	25	29
Telangana	42.45	13	98.78	1	98.28	2	3
Uttarakhand	13.36	23	96.13	9	94.24	11	11

State-wise Ease of Doing Business Rank							
State/Union Territory	2015		2016		2017		2019
	Score	Rank	Score	Rank	Score	Rank	Rank
Andhra Pradesh	70.12	2	98.78	1	98.3	1	1
Uttar Pradesh	47.37	10	84.52	14	92.89	12	2
West Bengal	46.90	11	84.23	15	94.59	10	9
Andaman and Nicobar Islands	9.73	25	0.30	31	1.25	31	22
Chandigarh	10.04	24	0.30	31	11.54	29	29
Dadra & Nagar Haveli	-	-	1.79	25	21.88	26	23
Delhi	37.35	15	47.62	19	31.69	23	12
Daman & Diu	-	-	14.58	23	28.69	24	18
Lakshadweep	-	-	0.30	31	-	34	15
Puducherry	17.72	20	1.49	26	15.65	27	27

Source: Department of Industrial Policy and Promotion, Government of India

### Concluding Remarks

Due to the pro-industrial policy and an investor friendly ecosystem Jharkhand has performed reasonably well in the industrial sector. The state has covered almost the entire spectrum of the different sub-sectors. Jharkhand has achieved remarkable success in sericulture and the MSME sectors and is rightly diversifying the industrial portfolio to the other sectors as well. It is encouraging to see that traditional dependency on mining and quarrying activities has reduced and shifted to the other sub -sectors mainly the manufacturing sector which is more sustainable and employment generating. Developing downstream processing industries for consumer durables, engineering goods could be one area where more thrust is required. The handloom sector

has a huge scope for reducing regional imbalances and gender disparity and also for employment generation. At present, the resources are not being utilised optimally. A properly framed policy addressing fields such as capacity building, education, trainings, skill upgradation and industrial institutional interaction can flip the situation in the long run and bring more prosperity to the people and the state. The training module should be developed with a close collaboration of the industrial sector and other stakeholders in the designing and implementation stages for the development of sector-specific skills.





# Chapter 9

## Infrastructure and Communication





A well-developed, efficient and extensive base of infrastructure and communication network is indispensable for the development of a state. Comprehending the veracity of this reality, the state of Jharkhand, ever since it came into existence, has striven towards strengthening its infrastructure and communication-facilities. The state currently has a well developed energy sector, a well-knit network of roads, a well connected rail transport, robust air-connectivity and a well developed digital network.

### Introduction

Infrastructure and communication facilities are the prerequisites for propelling any economy towards a higher growth trajectory. In addition to contributing directly to the growth of income and employment, the infrastructure and communication sector serves as a base for industrial and commercial development. While power, apart from meeting domestic energy-requirements, is indispensable for the functioning of industrial and commercial sector, a well-connected transport facility is essential for the efficient and cost effective movement of people and goods. An extensive communication-network is required to enable hassle-free flow of data and information and efficient delivery of services. With increasing penetration of digital service platforms in the domestic as well as the commercial life, it has become the need of the hour that efficient optic fiber-network be in place. Given the nature and importance of infrastructure and the communication sector, the government either solely or on public-private partnership-mode has to come forward to develop them.

### Energy

Energy is required for domestic as well as commercial and industrial purposes. The state produces and also purchases electricity to meet its power needs. Moreover, there has been persistent improvement in the installed capacity in the state reflecting its quest towards self-reliance in the generation of power. An uninterrupted and adequate supply of power is indispensable for a robust economic growth. It is doubtless that the state has persistently made progress on this front registering positive growth rates on an yearly basis, yet, there have been spells of negative growth as presented in table 9.1 below. The total availability of power was 9988.2 MW

in the year 2011-12 which increased to 12878.12 MW in the year 2019-20 registering a CAGR of 3.23 per cent.

**Table 9.1: Comparative Power Statistics and Availability of JBVNL**

Year	Power Availability of JBVNL (MW)	YoY growth in power availability
2011-12	9988.2	-1.1
2012-13	10911.61	9.2
2013-14	11861.61	8.7
2014-15	10859.61	-8.4
2015-16	13062.67	20.3
2016-17	12864.97	-1.5
2017-18	13319.79	3.5
2018-19	13820.2	3.8
2019-20	12878.13	-6.81
CAGR between the 2011-12 and 2019-20		3.23

*Source: The Department of Energy, GoJ*

### Installed Capacity (MW) of Power Utilities in Jharkhand

Among the different sources of power, coal is the one that has contributed 91 per cent of the total installed capacity in the state in the year 2020. Combining the state, central and private sources, 2276.46 MW of thermal energy were generated from coal. Hydro-electricity contributes 8 per cent to the total installed capacity. 191 MW of electricity were made available from it in September 2020. Renewable sources of energy constitute a relatively smaller proportion of the total installed capacity and only 47.41 MW are made available through them.

**Table 9.2: Installed Capacity (MW) of Power Utilities in Jharkhand including Allocated Shares from Central and Joint Sector Power Utilities (As in September, 2020)**

Ownership/ Sector	Thermal				Nuclear	Hydro- electricity	Renewable Energy Sources (RES)	Grand Total
	Coal	Gas	Diesel	Total				
State	420.00	0.00	0.00	420.00	0.00	130.00	4.05	554.05
Private	580.00	0.00	0.00	580.00	0.00	0.00	43.36	623.36
Central	1276.46	0.00	0.00	1276.46	0.00	61.00	0.00	1337.46
Sub Total	2276.46	0.00	0.00	2276.46	0.00	191.00	47.41	2514.87

Source: The Department of Energy, Government of Jharkhand

### Energy-Availability and Requirement (in MU)

The requirement of energy has always exceeded its availability (see table 9.3 below). The energy-requirement remained greater than its availability during the period of 2009-10 and 2019-20. However, this gap has declined over the years from 460 MU in the year 2009-10 to almost 75 MU in the year 2019-20. The availability has exceeded the requirement only in the years 2015-16 and 2018-19. Between the years 2009-

10 and 2019-20 the requirement of energy has grown at CAGR of 8 per cent and its availability has grown at a CAGR of 9 per cent. As a result, the gap between the requirement and availability of energy has reduced over the years. The shortage of energy, which was 8.5 per cent of the total requirement in the year 2009-10 has reduced to 0.58 per cent of it in the year 2019-20.

**Table 9.3: Energy-Availability and Requirement (in MU)**

Year	Energy-Requirement (in MW)	Energy-Availability (in MW)	Shortage (in MW)	Shortage as a per cent of the total requirement
2009-10	5867	5407	460	8.5
2010-11	6195	5985	210	3.5
2011-12	6280	6030	250	4.1
2012-13	7042	6765	277	4.1
2013-14	7143	7007	136	1.9
2014-15	11737.01	10859.61	877.4	8.1
2015-16	12670.56	13062.67	-392.11	-3
2016-17	13121.16	12864.97	256.19	2
2017-18	13564.88	13319.79	245.09	1.8
2018-19	13900	14021	-121	-0.9
2019-20	12803.35	12878.13	74.78	0.58

Source: The Department of Energy, Government of Jharkhand

### Electricity-Demand and Supply-Position

Despite improvements in the availability of power over the past decade, the peak-demand has remained greater than the peak-supply. The overall position of power-supply during the period of the year 2009-10 and 2017-18 reveals that for most of the years there has been a

shortage in the supply during the peak period. The state, however, had surplus power during the peak period in the year 2018-19.

Both the peak-power-demand and the peak-power-availability have grown over the years. Between the years 2009-10 and 2018-19, the peak-demand for power

has grown at an average annual (CAGR) rate of 8 percent whereas the peak-availability of power grew by 9.9 per cent. As a result, the shortage of power as a percentage of

peak-demand has decreased during this period, turning out to be surplus in the year 2018-19.

**Table 9.4: Peak Power-Demand and Availability**

Year	Peak Demand (in MW)	Peak Availability (in MW)	Shortage (in MW)	Shortage as a per cent of Demand
2009-10	1088	947	141	14.9
2010-11	1108	1052	56	5.3
2011-12	1030	868	162	18.7
2012-13	1263	1172	91	7.8
2013-14	1111	1069	42	3.9
2014-15	1850	1764	86	4.9
2015-16	1970	1827	143	7.8
2016-17	2051	1933	118	6.1
2017-18	2113	1994	119	6
2018-19	2169	2210	-41	-1.9

Source: The Department of Energy, Government of Jharkhand

### Demand-Availability Gap during the year 2019-20

The power-supply-position of Jharkhand during April, 2019 and March, 2020 has been presented in table 9.5 below. The maximum deficit was to the tune of 76 MW in January, 2020 when the peak demand remained the

highest. In terms of percentage the power deficit has fluctuated between a minimum of 0 per cent in some months to a maximum of 5 per cent in others during the financial year 2019-20.

**Table 9.5: Month-wise Position of Power-Supply in Jharkhand for the Financial Year 2019-20**

Month	Peak Demand (MW)	Availability (MW)	Deficit (MW)	Deficit as percentage of demand
Apr-19	1348	1348	0	0
May-19	1463	1417	46	3.14
Jun-19	1391	1346	45	3.23
Jul-19	1380	1350	30	2.17
Aug-19	1342	1320	22	1.63
Sep-19	1367	1355	12	0.87
Oct-19	1299	1299	0	0
Nov-19	1312	1311	1	0.076
Dec-19	1355	1355	0	0
Jan-20	1449	1373	76	5.24
Feb-20	1380	1358	22	1.59
Mar-20	1305	1305	0	0

Note: The above-mentioned data does not include data for DVC Command Area

Source: The Department of Energy, Government of Jharkhand

**Sector-Wise Electricity Consumption (FY 2019-20)**

The sector-wise consumption of electricity reveals that domestic sector is the largest consumer of electricity that accounts for around 60 per cent of the total consumption followed by industry whose share in total consumption stands at 26 per cent. The next biggest consumer of

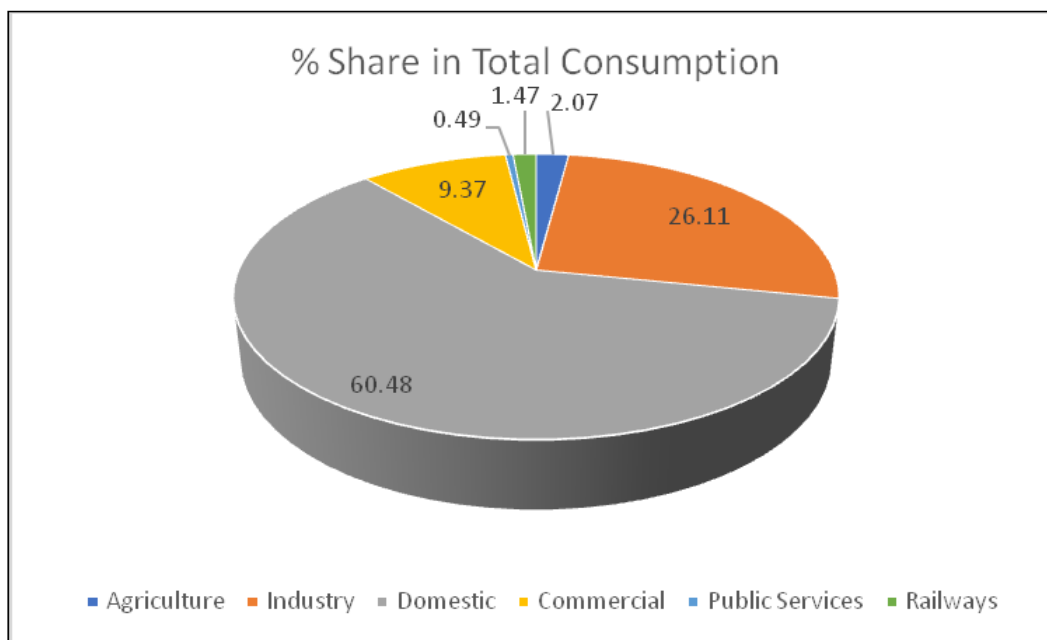
electricity is the commercial sector that accounts for 9 per cent of total consumption and relatively smaller shares are attributed to agriculture, railways and services in the decreasing order.

**Table 9.6: Sector-Wise Consumption of Electricity**

Sector	Consumption (in MUs)
Agriculture	193.905
Industry	2445.637
Domestic	5664.427
Commercial	877.469
Public Services	45.959
Railways	138.086

Source: The Department of Energy, Government of Jharkhand

**Figure 9.1: Sector-Wise Consumption of Electricity**



Source: Department of Energy, GoJ

**Status and Progress under DDUGJY Scheme**

Considerable progress has been made in the state under the Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY). Intensive electrification of all the 383 sanctioned villages has been completed. Of the 108 sanctioned 33/11 kV new sub stations to be set up 63 have been completed and an augmentation of 89 has been done with the target of completing the augmentation of the remaining 9 by March, 2021. The availability of 33/11 kV sub stations, 33 kV distribution-lines are essential

11 kV distribution-lines and low tension (L.T) lines are essential for better transmission of power through the transformer. Connection to all the sanctioned BPL and APL households has been achieved. The progress for distribution-transformers, feeder-segregation, LT lines and 11 KV lines are almost near to the target set which reflects the achievement of the DDUGJY scheme. A detailed progress of the scheme has been presented in table 9.7 given below.

**Table 9.7: Progress under DDUGJY Scheme**

Milestone Name	Unit	Sanctioned Quantity	Completed Quantity	Completion Timeline/ Remarks
Intensive Electrification of Villages (UE)	Nos.	383	383	Completed
Intensive Electrification of Villages (PE)	Nos.	17,397	16,794	Minimum infrastructure has been put up in these 603 villages which are basically ILFS left-out villages. The remaining electricity-infrastructure shall be completed by Mar' 2021
SAGY Villages	Nos.	19	19	Completed
Connection to BPL Households	Nos.	3,44,744	3,44,744	Completed
Connection to APL Households	Nos.	3,59,661	3,59,661	Completed
33/11 KV New Substations	Nos.	108	63	March 2021
Augmentation of 33/11 KV Substations	Nos.	98	89	
Distribution Transformers (DTRs)	Nos.	54,997	51,223	
Feeder Segregation	Ckm	4,795 (162)	4,577(143)	
LT Line	Ckm	44,110	40,289	
11 KV Line (Excluding Feeder Segregation Lines)	Ckm	13,424	11,359	
33 KV Line	Ckm	1,452.7	1,013.8	
Energy Meter - Consumer	Nos.	3,63,189	3,33,998	
Energy Meter - 11 KV & 33 KV Feeder	Nos.	840	840	Completed

Source: JBVNL

## Initiatives under Jharkhand Bijli Vitaran Nigam Limited (JBVNL)

### 1. SARAL-SAMIKSHA

Saral Samiksha is an online-project monitoring tool to ensure real time-monitoring of all on-going projects, transformer repair works and inventory management.

### 2. SUVIDHA

In line with the vision of the Central Government under the SAUBHAGYA scheme, JBVNL has taken upon

itself the task to provide connections to every household in the state by the end of the calendar year 2018. It is envisaged that with the progress of its mission to release connection to every household in the state, the flow of applications for the release of new connections will increase exponentially.

### 3. SAKSHAM

It is important for every organization in the power-sector to enhance the efficiency of its staff at every level of the implementation of work, in order to attract and



retain talent, identify and groom future leaders from within its ranks and to provide necessary capability-building-opportunities to its employees so that they stay competitive in the ever-changing power sector scenario.

#### 4. SASHAKT

Ever since the existence of JBVNL, the Nigam has been striving to provide enhanced consumer-services, especially the resolution of consumer-complaints. With the increased penetration of information-technology, the number of avenues available to the consumers for submitting complaints and suggestions has increased. Social media is one such method. Over the years, not only has it become an integral part of our lives but has also developed as an easily available platform for filing complaints. Thus, incorporation of new technologies and the development of newer platforms for receiving complaints in addition to the existing complaint handling mechanism of JBVNL, was inevitable.

#### Progress of Jharkhand Renewable Energy Development Authority

The state has been consistently working on clean sources of energy to meet its energy-requirements. The Jharkhand Renewable Energy Development Agency Ltd (JREDA) was incorporated as a Society in the year 2001 under the administrative control of the Department of Energy, Govt. of Jharkhand for promoting the use

of renewable energy-sources in the state. The state-government-notified solar policy titled Jharkhand State Solar Power Policy 2015 on 10th August 2015 for the development of solar energy in the state was formulated which was to remain in operation for 5 years or till the issuance of any other new policy. Solar Power Projects commissioned under this policy were to remain eligible for the incentives declared under this policy for 10 years. Moreover, for the promotion of rooftop solar programmes and to bring investment in the rooftop solar market in the state, the state-government notified Jharkhand Solar Rooftop Policy in the year 2018.

Other schemes in this direction include GCRT project, rural electrification of villages through solar grids and the initiatives under the Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya). So far 21722 GCRT projects (MWp) have been completed covering 946 buildings, 1649 solar pumps and 16700 solar street lights. A total of 149 solar high-masts have been installed in the state. With the ample supply of sun light throughout the year across the state, there exists immense potential for the development of solar power as a source of energy. Under the Saubhagya scheme, a total of 5747 households have been electrified in the state. The cumulative capacity of solar ground mounted PV plants (MWp) stands at 21.72.

**Table 9.8: Progress of Schemes under JREDA**

Type of System	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
GCRT Project (MWp)	4565	3552	7831	5324	450	21722
GCRT Project (No. of buildings)	100	236	242	368	Nil	946
Solar Pumps (Nos.)	225	707	126	591	Nil	1649
Solar Street Light (Nos.)	500	3200	5000	Nil	8000	16700
Solar Highmast (Nos.)	-	-	49	Nil	100	149
Rural Electrification of Village through Solar Mini/Microgrid and Solar Standalone (Nos.)	-	212	30	Nil	Nil	242
H/H Electrification under Saubhagya (Nos.)	-	-	3494	Nil	2253	5747

Source: JREDA

**Table 9.9: Cumulative Capacity (as on 31st March 2020)**

System	Capacity
Solar Ground Mounted PV plants (MWp)	21.723
Solar rooftop plants (MWp)	19

Source: JREDA

### Transmission and Distribution Losses

Transmission and distribution network constitute a vital pillar of the electricity power system. Checking losses on this front is essential in order to reduce wastage while electricity is being delivered from the power plants to consumers' end. In Jharkhand, the transmission and distribution works are performed by the Jharkhand Urja Sancharan Nigam Limited (JUSNL – State Transco) and the Jharkhand Bijli Vitaran Nigam Limited (JBVNL – State Discom). While supplying electricity to the consumers, energy losses occur due to technical and commercial reasons. The technical losses are due to energy dissipated through conductors, transformers and other equipment used for transmission such as transformation, sub-transmission and the distribution of power. Though such losses can be reduced they cannot be avoided. Commercial losses include losses due to hooking, bypassing meters, errors in meter-reading and in estimating un-metered supply of energy. The overall transmission and distribution (T & D) loss in the state stood at 22 per cent in 2019-20 while the aggregate technical and commercial loss was around 33 per cent. Reducing both the losses constitutes the priority of the distribution-agencies and it is expected to reduce further in the near future.

**Table 9.10: Aggregate Technical and Commercial (AT & C) Loss and Transmission and Distribution (T & D) loss (in %)**

Year	AT&C Loss	T&D Loss
2015-16	34.84	23.13
2016-17	31.80	24.80
2017-18	31.67	19.48
2018-19	28.69	22.71
2019-20	32.67	22.34

Source:Source: JBVNL

### Road

A well connected network of roads is vital for the economic growth of the state. Roads provide connectivity to places where rails are not present. This becomes crucial for a state like Jharkhand that has varied topography encompassing uneven plateau-terrain. Quality roads help provide faster transportation thereby saving time which in turn reduces cost. The road-network in the state basically comprises of national highways, state highways, roads of major districts roads and rural roads. The national highways connect the state to different parts of the country, state highways provide connectivity to the districts and the district roads facilitate intra-district connectivity. The total length of national highways in the state has increased from 2649 kms in 2018 to 3367 kms in 2020. The total length of other roads of PWD (RCD) has increased from 11709 kms in 2018 to 12736 kms in 2020. This represents an increase of 27 per cent in the case of national highways and about 9 per cent in the case of RCD roads between the years 2018 and 2020. Of the total length of the national highways 73 per cent remains with the state government and the remaining 27 per cent has been transferred to the NHAI.

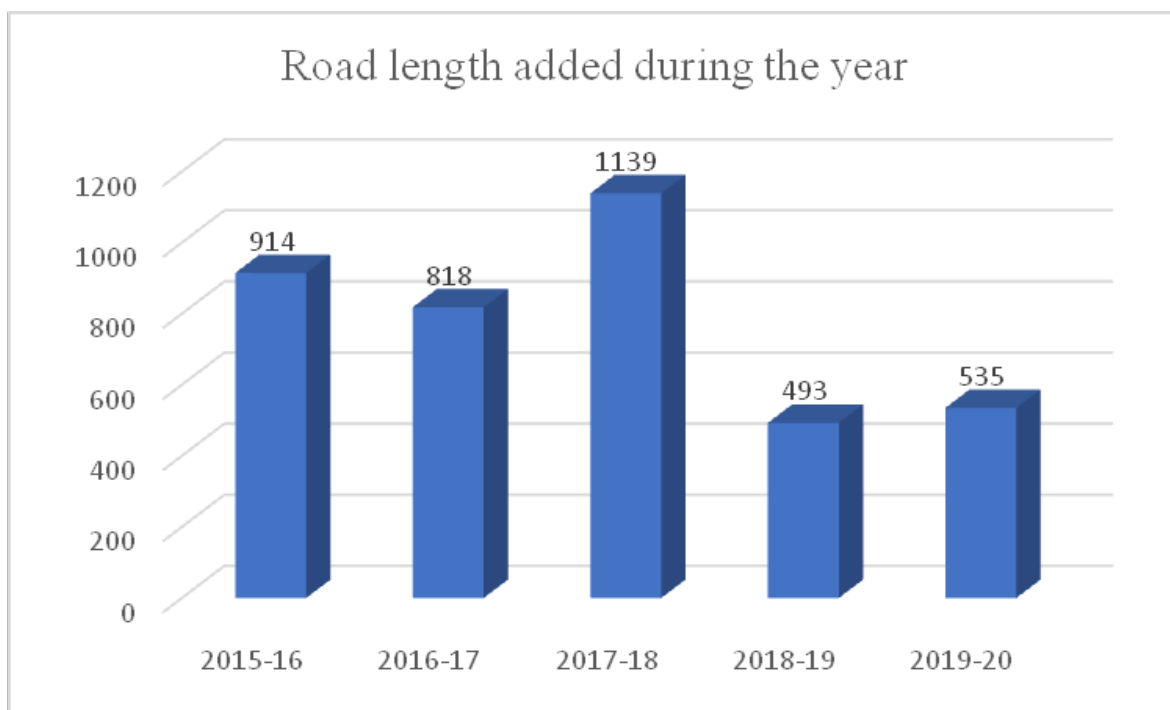
**Table 9.11: Road Lengths under the Various Categories**

Category	Status			
	31.3.2018	31.3.2019	31.3.2020	31.10.2020
National Highway				
Number	25	33	33	33
Total Length (km)	2649	3367	3367	3367
NH with State Govt (km)	1729.6	2447.6	2447.6	2447.6
NH transferred to NHAI (km)	919.4	919.4	919.4	919.4
RCD Roads				
Total Length (km)	11709	12202	12736	12736
State Highways (SH) (km)	1231.9	1231.9	1231.9	1231.9

Category	Status			
	31.3.2018	31.3.2019	31.3.2020	31.10.2020
Major District-Roads (MDR) (km)	4845.7	4845.7	4845.7	4845.7
Other RCDs Road (km)	5630.9	6124.4	6658.0	6658.0

Source: The Road Construction Department, GoJ

**Figure 9.2: The growth of Road Lengths under SH, MDR and other RCD Roads during different Years**



Source: The Road Construction Department, GoJ

### Road Density

Road-density refers to the ratio of the length of the country's/state's total road-network that includes all types of roads to the country's/state's land area. The road-density in the case of SH, MDR and other RCD roads in the state is less than half of the national average.

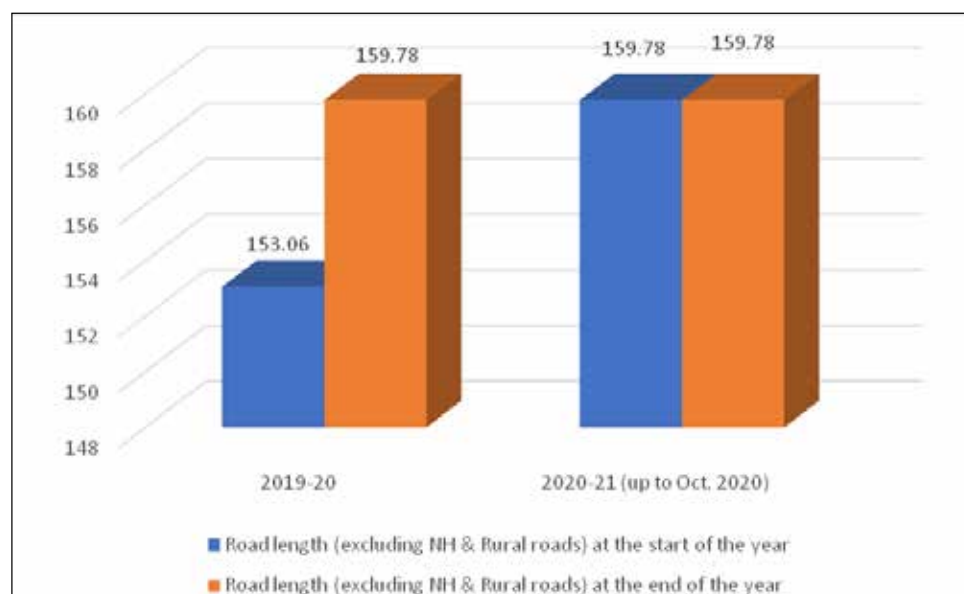
The road-density of the state is less by 226 km/1000sq km than that of the country as a whole. This reflects that there exists an immense scope for extending the network of all types of roads in the state.

**Table 9.12: Road Density : A Comparison**

	India	Jharkhand	Remarks
Total Length of Roads (Km)	1268287	12736	Area of Jharkhand (including water area)- 79700 Sq Km; Area of the country (including water-area)-3287590 Sq. km
Road Density in terms of Area (Road Km / 1000 Sq. Km) as on 01.4.2020	385.78	159.78	SH, MDR and Other RCD Roads (ie., Road length excluding NH and Rural Roads)
Road Density in terms of Area (Road Km / 1000 Sq. Km) as on 31.10.2020	385.78	159.78	SH, MDR and Other RCD Roads (ie., Road length excluding NH and Rural Roads)

Source: The Road Construction Department, GoJ

**Figure 9.3: Road Density of Roads under SH, MDR and Other RCD Roads**



Source: The Road Construction Department, GoJ

**Table 9.13: Roads transferred to the Road Construction Department**

Year	Length in Kms
2014-15	1336
2015-16	914
2016-17	818
2017-18	1139
2018-19	493
2019-20	535
2020-21 (upto 31.10.2020)	0

Source: The Road Construction Department, GoJ

### Initiative and achievement of the State Highway Authority of Jharkhand (SHAJ)

The State Highway Authority of Jharkhand is a semi-autonomous body funded by the state government for its operations. It is responsible for the creation of a network of roads in the state. The progress made by the

institution so far depicts the creation of almost 800 kms of road. The detailed achievement of the SHAJ has been presented in table 9.14 given below.

**Table 9.14: Progress under the SHAJ**

Name of the Project	Length of Kms.	Agreement Amount (in Rs. crores)
Improvement and Upgradation of Koderma-Domchanch-Khorimahua-Jamua (SH-13) Road to two-lane/two-lane with paved shoulders in Engineering Procurement and Construction (EPC) mode in Jharkhand	69.07	155.0363
Widening / Strengthening / Reconstruction to two-lane with paved shoulder of the Chandrapura-Bhandaridah-Phusro-Railway Crossing - 4 no. Phatak- Kathara-Gomia Road and 170 m slip road at Phusro	36.466	129.7661
Improvement and Upgradation to two-lane configuration of the Giridih-Gandey- Pandedih Road	42.558	95.44

Name of the Project	Length of Kms.	Agreement Amount (in Rs. crores)
Widening and Strengthening/Reconstruction of Mohammadganj - Japla (on MDR-127) – Dangwar Road	35.755	116.43
Widening, Strengthening / Reconstruction of Deoghar – Madhupur - via Mohanpur road	28.28	93.81
Reconstruction of Sisai – KumaharToli More to Ghaghra Via Sahejana, Koredag, Kurgi Road. This shall include the bridges too	35.1	86.66
Improvement and Upgradation of Rangamati-Tikar-Hazam-Banta-Silli Road (MDR-025) from chain age 8.80+Km to 46.37 Km	37.57	111.98
Strengthening, Widening and Reconstruction of the Chattarpur- Japla (MDR127) Road to two lanes with paved shoulder on EPC Mode	32.466	105.9
Strengthening, Widening and Reconstruction of Garhwa-Shahpur (MDR-120) Road in the state on EPC mode	30.444	53.76
Widening /Strengthening of Hata-Swaspur-Musabani Road (MDR-172)	44.3	76.2485
Widening and Strengthening of Chauparan - Chatra (MDR-068) Road in Engineering-Procurement and Construction (EPC) mode	49.168	130.7
Widening and Strengthening of Khunti-Torpa-Kolebira Road from 0.00 km to 82.055 km to two lanes with paved shoulder in Engineering Procurement and Construction (EPC) mode	82.055	176.7
Improvement and Upgradation to two Lanes/ two Lanes with paved shoulder configuration of Dumka Masalia Kundhit Nala Road upto the West Bengal Border (MDR 193)	53.355	166.21
Strengthening and Widening/Reconstruction of Chakradharpur-Sonua-Goelkera Road (MDR-173)	35.775	102.0495
Widening and Strengthening/Reconstruction of Maricha (on K.T.K Road,SH-3)-Soude (upto SH-4) Road (Total length-36.19 Km.) including Construction of Bridges and Culverts	35.74	75.97
Widening and Strengthening of Balumath-Herhanj-Panki Road (SH-10)	47.02	103.1405
Improvement to two-lanes with paved shoulder of the existing road Vikas- Booty More- Kantatoli-Namkum Bridge(ROB)-Rampur in Engineering Procurement and Construction (EPC) mode	25.35	138.62
Widening/Strengthening of the thaitanger -Bolba- Kersai- Kinkel Road (MDR-041) (length-57.9 km.) including the Construction of Bridges and Culverts in the Simdega District	57.90	115.37
Total Kms. of Completed Projects	778.372	2033.791

Source: SHAJ

### Railways

Railways constitute the lifeline of the transport system in the country. Even in Jharkhand its role as a catalyst for the static economic growth can not be denied. The state of Jharkhand comes under the South Eastern Railway division with 36 per cent of its jurisdiction

covering the state. The Ranchi Railway Division was created in the year 2003 with a view to promote rail-infrastructure and extend railway-network in the state. There has been considerable improvement in the area of construction of new railway lines as well as the work of doubling them. Considerable improvement has also

been witnessed with regards to the introduction of new trains, extension of services, increase in the frequency of the running trains etc. during the past five years. Being a mineral rich state, it is imperative that there exist a well-connected network of rail-transport to facilitate freight-movement. While extending the rail-network in the state several new lines have been commissioned and many have been doubled. The average annual grant per year to Jharkhand has increased from 457 crores during 2009-10 and 2013-14 to 2200 crores during 2014-15 and 2019-20. This amounts to a jump of a whopping 381 per cent. Major achievements in rail transport in the recent years include the laying of 436 kms of new lines and the doubling or commissioning of third line of 259 kms between 2014-19. This represents a growth of more than 100 per cent in the laying of new lines and more than 500 per cent in doubling or commissioning of the third line as compared to the period of 2009-14. The description of important lines commissioned since 2014 has been presented in table 9.15 given below.

**Table 9.15: New Lines Commissioned (in Kms.)**

2009-14	2014-19
194	436

Source: Ministry of Railways, GOI

**Table 9.16 : Doubling/3rd Line Commissioned (in Kms.)**

2009-14	2014-19
39	259

Source: Ministry of Railways, GOI

**Table 9.17: Important Projects Commissioned since 2014**

New Lines (in Kms)	
Barkichanpi-Tori Extension	30
Koderma-Hazaribagh	80
Nawadih-Kawar	53
Hazaribagh-Arigada	54
Tatisilwai-Shanki	30
Tori-Shivpur	44
Koderma-Maheshmunda	24
Doubling/3rd Line Commissioned (in Kms)	
Chandrapura-Rajabera (Doubling)	10
Rajkharsawan-Sini (3rd Line)	17
Goilkeria-Monoharpur (3rd Line)	28

New Lines (in Kms)	
Sini-Adityapur (3rd Line)	23
Bonidanga-Mirzachauki (Doubling)	57
Rajkharsawan-Dangoaposi (3rd Line)	75
Monoharpur-Jaraikela (3rd Line)	12
Sonua-Goilkeria (3rd Line)	13
Rajkharsawan (West)-Chakradharpur (3rd Line)	18

Source: Ministry of Railways, GOI

The total freight movement has increased persistently over the years reflecting the increasing role and contribution of railways in the movement of freight in the state. The increase in freight-movement by rail has increased from 124 million tonnes in 2014-15 to 155 million tonnes in 2018-19 and this has resulted in an improvement in revenue with earnings rising by 33.4 per cent between 2014-15 and 2018-19. As part of the thrust on improving facilities at railway stations, Wi-Fi facility is being provided at 31 stations and POS machines have been installed at 147 stations.

**Table 9.18: Year-wise Freight Loading (in million tonnes) and Originating Freight Earnings**

Year	Freight (in million tonnes)	Freight Earnings (rupees in crore)
2014-15	124	9557
2015-16	134	10,819
2016-17	148	11,543
2017-18	151	12,063
2018-19	155	12,788

Source: Ministry of Railways, GOI

**Table 9.19: Facility at Railway Stations**

Facility	Number of Stations
Wi-Fi Facility in the Railway Stations of Jharkhand	31
POS Machine at the Railway Locations in Jharkhand	147

Source: Ministry of Railways, GOI

### Infrastructure-thrust

In order to strengthen the infrastructure base of rail transport in the state, electrification of tracks has been sanctioned in all the sections of Jharkhand. To take this goal ahead a total 525 kms of electrification-work has been commissioned between 2014-19. Electrification of rail-routes will reduce the consumption of energy and hence reduce costs. It will be more environment-friendly too. Above all faster trains will help in reducing the duration of journeys. Important electrification works commissioned in the state are:-

- Ranchi-Lohardaga-Tori Section
- Garhwa Road-Meralgram-Renukut Section
- Tori-Biratoli Section
- Biratoli-Balumath Section
- Koderma-Khurhagada Section
- Khurhagada-Hazaribagh Town Section
- Hazaribagh Town-Barkakana Section
- Pakur-Bonidanga-Tildanga Section
- Bonidanga-Tinpahar Section

### Other important electrification-works in progress include: -

- Tatnagar-Badampahar section
- Tinpahar-Amrapali Section

### New Projects in recent years

In order to give impetus to rail-transport in the state 50 new trains have been introduced and another 50 of them. between 2014-15 and 2018-19. Some of the new projects inaugurated in the recent years are flagging off of Tatanagar-Badampahar DEMU Passenger Train on 05.01.19 and the inauguration of Tata nagar-Badampahar DEMU Passenger Train from Tatanagar Station on 05.01.2019.

### Dedicated Freight Corridor

The movement of freight is vital for commercial growth and industrial development. Moreover, for a mineral-rich state like Jharkhand which also has an extensive industrial base with a number of power plants and steel plants, an efficient and extensive freight network is indispensable. The Eastern Dedicated Freight Corridor which is being constructed under the aegis of Dedicated Freight Corridor Corporation of India (DFCCIL) and covers a total route-length of 1856 kms extends over a

distance of 196 kms in Jharkhand. This corridor will cater to a vital traffic-stream of the state. Some of the important freight traffic streams include:-

- Coal for power plants situated in eastern coalfields in the Jharia region of Jharkhand
- Finished steel from Bokaro Steel Plant
- Cement from factories of ACC in Patratu, Dalmia and Lafarge groups
- Fertilizer from FCIL, Sindri
- It would also quantitatively speed up the transport of lime stone from Rajasthan to steel plants in the east and also expedite the transportation of general goods.

### Civil aviation

Air-transport is equally vital in providing connectivity as it not only reduces the time of journey but also facilitates hassle free movement. The state of Jharkhand has Birsa Munda Airport at Ranchi which is spread over an area of 545 acres and handles only domestic air traffic. However, the aim is to expand it to another 303.62 acres and turn it into an international airport. Tracking the progress in this direction, a sum of Rs 210 crores has been spent on acquiring 301.12 acres of land out of the 303.62 acres and the acquisition of the remaining is in process. This is being pursued as per an MoU between the AAI and the government of Jharkhand. The land is being acquired for the expansion of runway and ancillary works like the construction of new terminal building, car parking, apron etc.

### Status of ongoing projects

#### Development of Deoghar Airport

An MoU has been signed between the government of Jharkhand, AAI and DRDO on 25th March 2017 for the development of Deogarh Airport for handling domestic flights of A-320 category. The construction of the airport on 653.75 acres land is at its final stage. The total estimated CAPEX for the project is Rs 300 Crores which will be shared by the government of Jharkhand (50 crores), AAI(50 crores or actual cost) and DRDO(200 crores). The government of Jharkhand has paid around 427 crores rupees as compensation for land-acquisition and 33 crores rupees in utility-shifting. The project is expected to be completed. The government of Jharkhand has also entered into a joint venture with the AAI on 24/01/2019 for the constitution of Deoghar Airport Limited.

### Development of Dhalbhumgarh Airport

An MoU has also been signed between the government of Jharkhand and the AAI on 24/01/2019 for the development of Dhalbhum airport.

### Government Glider Training Centre

The government training centres established at Ranchi, Dumka and Dhanbad have started imparting glider training and altogether nine candidates have been issued with GPL in the year 2019-20.

### Establishment of CPL training Institute at Dumka on PPP basis

The government of Jharkhand has entered into an agreement with Aryan Aviation Pvt. Ltd. in March 2019 for the establishment of CPL training institute at Dumka.

### Regional Connectivity Scheme (RCS)

Under the RCS- UDAN, airports at Dumka and Bokaro are being developed by the Ministry of Civil Aviation for scheduled flight-operations in the RCS routes i.e. Dumka-Patna, Dumka-Ranchi, Dumka-Kolkata, Bokaro-Patna and Bokaro-Kolkata.

### IT & Communication

In the present age of digitization, an efficient IT based communication-network is vital for the effective delivery of services. All the 24 district headquarters are connected with the state headquarters under Jharnet and data and voice communications are available between the state headquarters, district headquarters, the 38 sub-divisional headquarters and 214 block headquarters.

### Telecommunication

The Telecom sector plays a vital role in facilitating trade and commerce apart from serving household-connectivity. There has been a persistent rise in the number of telephone subscribers in the state circle between 2016-2018, however, it dropped in 2019. Tele-density which is defined as the number of telephone connections (fixed lines and mobile phone subscribers) per 100 inhabitants within a geographical area improved from 59.46 in 2016 to 62.23 in 2018 but fell in 2019 to 58.92.

**Table 9.20: Subscriber-base in Jharkhand**

Service Area	Subscribers (in millions)			
	December-2016	December-2017	December-2018	December-2019
Bihar/Jharkhand	82.57	84.56	88.32	84.50

Source: TRAI

**Table 9.21: Teledensity in Jharkhand**

Year	Total
December-2016	59.46
December-2017	60.22
December-2018	62.23
December-2019	58.92

Source: TRAI

### IT based Infrastructure

#### Progress under JHARNET

The Jharkhand State Information and Communication Network which is known as JharNet or SWAN (State Wide Area Network) connects the different offices of the state headquarters to all districts, sub districts and blocks and provides video, voice (IP phone) and data services. Originally set up in 2005-06 the programme got commissioned with effect from 01.08.2009. Currently JharNet 2.0 is under progress and is expected to be completed by January 2021. This network provides connectivity to approximately 1700 offices across the state. There are approximately 3000 IP Phone and 5300 Data users in JharNet which includes that at all the levels.

The Common Service Centres are single window-points for the delivery of public services, social welfare schemes, health-care schemes, financial schemes, educational and agricultural services to people in the rural and the urban areas. In order to ensure an effective and efficient delivery of services, the government has equipped the Common Service Centres with an IT based infrastructure. The status of the IT based infrastructure at the Common Service Centres is presented in the table below. Of the total 19066 rolled out Common Service Centres (CSCs), 12101 CSCs are functional.

**Table 9.22: Rural and Urban CSC Rollout Status in Jharkhand**

IT Based Infrastructure (Pragya Kendras) Status	
Rollout CSC	19066
Functional CSC	12101

Source: The Department of IT, GoJ



**Table 9.23: CSC Projects in Jharkhand (2015-16 to 2019-20)**

Financial Year	Total CSCs Rollout (Cumulative)
2015-16	4200
2016-17	11500
2017-18	19600
2018-19	20302
2019-20	17545

Source: The Department of IT, GoJ

**Progress under National Optical Fibre Network (NOFN)**

The National Optical Fibre Network (NOFN) also known as Bharat Net project, initiated in 2011, is currently in its second phase in the state with 61 per cent of the work under the project having been completed. Presently work is under progress in 64 blocks spanning across 11 districts, covering altogether 931 GPs. The OFC-laying has been completed in 643 GPs. The project being the largest among the rural-connectivity-projects of its kind, is the first pillar of Digital India Programme and aims to facilitate the delivery of various e-Services and applications including e-health, e-education, e-governance and e-commerce. The progress under

Bharat Broadband Network Limited reveals that the project has so far covered 142 blocks. The OFC laying has been completed in 2769 GPs. The total length of optical fibre network stands at 7960.713km in the state.

**Conclusion**

Infrastructure and Communication serve as the backbone of any economy. An efficient and well-developed infrastructure and communication facilities help in the economic growth of the state. Ever since its formation, Jharkhand has made considerable progress in its infrastructure and communication-base. There has been an increase in the stretch of national highways by 27 per cent and of RCD roads by about 9 per cent between 2018 and 2020. Several new rail lines have been commissioned and many new trains have been introduced. As a thrust to infrastructure the base of rail transport in the state-electrification of tracks has been sanctioned in all the sections of Jharkhand and electrification work of 525 kms has been commissioned between 2014-19. The network of air transport is being strengthened by establishing new airports and improving the existing ones. In the present age of digitization, the IT network is being strengthened under JHARNET and BHARATNET projects ensuring an effective delivery of services at the doorstep. Thus, the state has actively identified its infrastructural requirements and has worked steadily towards fulfilling the existing gaps.

# Chapter 10

## Labour and Employment





The unemployment in Jharkhand which had reached its peak during the lockdown period started decreasing after the relaxation in the restrictions and resumption of economic activities. The rate of unemployment in the state has decreased to the level of what it was before the pandemic. The Situation has started limping back to normal since October 2020. The other indicators of labour market have also improved in the state.

### Introduction

The Periodic labour force survey (PLFS), which is conducted by the National Sample Survey Organisation (NSSO), provides data regarding the labour market of the country at a high frequency<sup>1</sup>. Besides the unit level data for 2017-18 and 2018-19<sup>2</sup>, it has released Quarterly Bulletins for the quarters ending in December 2018, March 2019, June 2019, September 2019, December 2019 and March 2020. As per the estimates of the PLFS, the Labour Force Participation Rate (LFPR) of Jharkhand for the age-group 15 to 59 years was 47.7 per cent in 2017-18 and 50.5 per cent in 2018-19. While the LFPR of the state has increased, the unemployment-rate in this age-group has decreased from 8.1 per cent in 2017-18 to 5.5 per cent in 2018-19. This data show that there is an increase in the Labour Force Participation Rate for age-group of 15 years and above from July- September 2019 to January- March 2020 for males by 7.8 per cent and for the females by 25 per cent in urban Jharkhand. For the age group of 15 years and above the unemployment-rate has remained same in urban Jharkhand while it has decreased by 5 per cent in nationally. In case females, of the age-group of 15 years and above the unemployment rate has decreased by 5.8 per cent. The gap between LFPR among males and females of urban Jharkhand and that of urban India has decreased and almost narrowed down between July- September 2019 and January-March 2020.

According to the PLFS 2017-18, among all the workers who were engaged in Agricultural & Allied sector as Principal Activities, approximately 30.71 per cent of them were engaged in other subsidiary activities. In 2018-19, approximately 35.77 per cent all the workers who were engaged in Agricultural & Allied sector as Principal Activities were engaged in other subsidiary activities as well. In 2017-18, 55.13 per cent of workers

1 Before PLFS, authentic data regarding employment and unemployment in the country was provided by NSSO every fifth year through its quinquennial rounds.

2 The unit level data of PLFS has been released by NSSO for only two quarters of 2018-19.

were self employed, 23.41 per cent were regular salaried workers and 21.46 per cent were casual workers. In 2018-19 57.42 per cent of workers were self employed, 23.66 per cent were regular salaried workers and 18.92 per cent were casual workers. In 2017-18 approximately 63.39 per cent of workers were not eligible for any of the social security benefits whereas in 71.10 per cent of workers were not eligible for any of the social security benefits.

According to PLFS 2017-18, Female Labour Force Participation Rate was 8.7 in Jharkhand against 50.3 per cent of Male Labour Force Participation Rate. In 2018-19 Labour Force Participation Rate increased to 14.3 per cent as against 51.9 per cent of Male Labour Force Participation Rate. There is disparity in the average wage-earnings per day from the causal labour workforce from the public workforce among males and females which is calculated from the PLFS 2017-18 and PLFS 2018-19 in Currently Weekly Status. Further we find that in Jharkhand the relationship between the level of education in single years and the female participation rate gives an almost inverted U – shaped curve.

### Labour Force Participation Rate – Usual status<sup>3</sup>

The Labour force refers to that part of the population which offers its labour for pursuing economic activities for the production of goods and services and therefore, includes both ‘employed’ and ‘unemployed’ persons. The labour force participation rate (LFPR) is defined as the labour force as a percentage of the total population.

The labour force participation rate (LFPR) of the males is much higher than that of the females. This is partly

3 The usual status refers to the activity status of a person during the reference period of 365 days preceding the date of survey. The activity status on which a person spent relatively long time (major time criterion) during the 365 days preceding the date of survey is considered the usual principal activity status (UPS) of the person. On the basis of this criteria a person is categorized as belonging to the ‘labour force’, outside labour force (i.e. ‘neither working nor available for work’), and working (employed).

All those individuals who are either unemployed or outside the labour force, but have worked for a minor period of not less than 30 days during the reference year, are classified as subsidiary status workers.

The people are classified into different occupations also using the above mentioned usual and subsidiary status criteria.

because many of the women, because of their involvement in care activities, do not participate in any economic activity but mainly because their economic activities mostly remain unrecognised or under-recognised.

The LFPR of both the males and females is higher in the rural areas than in the urban areas. This is true for the males and females of all the age-group and for both the years i.e. 2017-18 and 2018-19. In comparison to the urban areas, the LFPR is high in rural areas because of high incidence of poverty and less opportunities to remain outside the labour force. As is well known that the poor cannot afford to remain outside labour and work force, a larger percentage of the rural people have to join the labour market and that too in an early age. Similarly, because of lack of opportunities to remain outside the labour force, a large percentage of the rural people are left with no option but to join the labour market. Those living in the urban areas may defer the decision to join the labour market, partly because they can afford to do so and partly because they can pursue activities outside

the purview of the labour market.

Except for the females of the urban areas, the LFPR of all categories of people –the males and the females and those belonging to different age-groups has, increased between 2017-18 and 2018-19.

The LFPR of the males in rural areas has increased by 4.2 per cent and that of the males in urban areas by 2.5 per cent between 2017-18 and 2018-19. The LFPR of the females of the rural areas has increased by 49 per cent while that in the females in the urban areas has decreased by 17.5 per cent between 2017-18 and 2018-19. On the whole (rural + urban), the LFPR of the females has increased in this period. It seems that the males have joined the labour market a little earlier than the females. For the males, the highest increase is in the age-group of 15 to 29 years while for the females the lowest increase is in this age-group and the highest increase is in the age-group of 15 to 59 years.

**Table 10.1: The Labour Force Participation Rate by Usual Principal Status**

State/UT	rural			urban			rural + urban		
	male	female	person	male	female	person	male	female	person
2017-18									
15-29 years	60.3	12.0	36.9	43.9	11.3	27.6	57.1	11.9	35.0
15-59 years	80.1	16.6	48.8	72.6	15.3	43.6	78.5	16.3	47.7
15 years and above	75.7	15.7	46.3	66.9	14.3	40.2	73.9	15.4	45.1
2018-19									
15-29 years	64.0	17.1	38.3	55.9	8.0	30.2	62.0	15.0	36.4
15-59 years	82.4	25.8	52.6	77.8	12.8	43.6	81.3	22.7	50.5
15 years and above	78.9	23.4	49.8	68.6	11.8	39.5	76.4	20.7	47.4
<b>Percentage change between 2017-18 and 18-19</b>									
15-29 years	6.1	42.5	3.8	27.3	-29.2	9.4	8.6	26.1	4.0
15-59 years	2.9	55.4	7.8	7.2	-16.3	0.0	3.6	39.3	5.9
15 years and above	4.2	49.0	7.6	2.5	-17.5	-1.7	3.4	34.4	5.1

**Work Force Participation Rate – Usual status**

As in the case of LFPR, the work force participation rate (WFPR) of both the males and females in all the age categories is higher in the rural areas than in the urban areas. In comparison to the urban areas, the WFPR is high in the rural areas because of the same logic that the incidence of poverty is high in the rural areas and the poor cannot

afford to remain unemployed.

Except for the females of the urban areas, the WFPR of all categories of people – of the males and the females and those belonging to different age-groups has increased between 2017-18 and 2018-19. The WFPR of the males of the rural areas has increased by 6.3 per cent and that

of the males of the urban areas by 4.2 per cent between 2017-18 and 2018-19. The WFPR of females of the rural areas has increased by about 54 per cent while that of the females of the urban areas has decreased by about 14 per cent between 2017-18 and 2018-19. However, on the whole (rural + urban), the WFPR of the females has increased by about 40 per cent in this period.

**Table 10.2: The Work Force Participation Rate by Usual Principal Status**

State/UT	rural			urban			rural + urban		
	male	female	person	male	female	person	male	female	person
2017-18									
15-29 years	48.5	10.6	30.1	30.4	7.8	19.1	44.9	10.0	27.9
15-59 years	73.6	15.9	45.2	64.9	13.5	38.8	71.8	15.4	43.9
15 years and above	70.1	15.1	43.2	60.1	12.6	36.0	68.1	14.6	41.7
2018-19									
15-29 years	54.3	16.8	33.8	43.7	5.7	23.3	51.7	14.2	31.3
15-59 years	77.4	25.6	50.2	70.7	11.7	39.7	75.8	22.3	47.7
15 years and above	74.5	23.3	47.6	62.6	10.8	36.1	71.6	20.4	44.9
Percentage change between 2017-18 and 18-19									
15-29 years	12.0	58.5	12.3	43.8	-26.9	22.0	15.1	42.0	12.2
15-59 years	5.2	61.0	11.1	8.9	-13.3	2.3	5.6	44.8	8.7
15 years and above	6.3	54.3	10.2	4.2	-14.3	0.3	5.1	39.7	7.7

*Unemployment Rate– Usual status*

The unemployment rate, for both the males and females, in all the age-groups and for both the years 2017-18 and 2018-19, is higher in the urban areas than in the rural areas. It shows that those in the urban areas wait for a longer time for a suitable job while those in the rural areas cannot afford to wait for long. The unemployment is high in the age-group 15 to 29 years, but decreases with the increase in age. Those in the lower age-group wait for longer duration for a suitable job, but with advancing age, they become desperate and compromise for jobs less suited to them.

Though the labour force participation rate (LFPR) is low

among the women, the unemployment rate, especially among those living in the urban areas is very high. In the year 2017-18 the unemployment rate of the females of the urban areas was higher than that of the males and in the year 2018-19, it was almost equal to that of the males. The unemployment rate of the females in the rural areas is much less than that of their male counterpart.

The unemployment rate has decreased sharply between 2017-18 and 2018-19. The unemployment rate of the state in the age-group 15 years and above was 7.5 per cent in 2017-18. It decreased by about 31 per cent to 5.2 per cent in the year 2018-19.

**Table 10.3: The Unemployment Rate by the Usual Principal Status**

State/UT	Rural			Urban			Rural + Urban		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
2017-18									
15-29 years	19.6	11.5	18.4	30.9	31.5	31.0	21.3	15.5	20.4
15-59 years	8.1	4.0	7.4	10.6	12.2	10.9	8.6	5.6	8.1
15 years and above	7.4	3.7	6.8	10.2	11.5	10.4	7.9	5.2	7.5
2018-19									
15-29 years	15.1	1.9	11.9	22.0	28.0	22.8	16.6	5.1	14.0
15-59 years	6.1	0.6	4.7	9.0	8.7	9.0	6.7	1.7	5.5
15 years and above	5.5	0.6	4.3	8.7	8.4	8.7	6.2	1.6	5.2
<b>Percentage change between 2017-18 and 18-19</b>									
15-29 years	-23.0	-83.5	-35.3	-28.8	-11.1	-26.5	-22.1	-67.1	-31.4
15-59 years	-24.7	-85.0	-36.5	-15.1	-28.7	-17.4	-22.1	-69.6	-32.1
15 years and above	-25.7	-83.8	-36.8	-14.7	-27.0	-16.3	-21.5	-69.2	-30.7

**Labour force participation rate in Urban Jharkhand– Current Weekly Status**

The labour force according to the current weekly status (CWS) is the number of persons either employed or unemployed on an average in a week of 7 days preceding the date of survey.

The LFPR in the urban areas of Jharkhand has remained less than that in the urban areas of the country in all the age-groups for both the males and females. The LFPR in the urban areas of Jharkhand has shown a rising trend and is catching up fast with the urban areas the country rapidly. The LFPR in the urban areas of Jharkhand, in the age-group of 15 to 29 years, which was about 28 per cent in the second quarter of 2018-19 (July- September 2018), increased to 39 per cent in the fourth quarter of 2019-20 (January- March 2020). While the LFPR of the males in the urban areas increased almost continuously between the second quarter of 2018-19 to the last quarter of 2019-20, the LFPR of the females in the urban areas decreased in the third quarter of 2018-19, recovered in the fourth quarter of this year (2018-19), then again decreased in the first two quarters of 2019-20 to recover again in the last two quarters of 2019-20. The LFPR of

the males of the urban areas was 45.6 per cent in the second quarter of 2018-19 and 58.9 per cent in the first quarter of 2019-20; the LFPR of the females of the urban areas was 10.3 per cent in the second quarter of 2018-19 and 17.3 per cent in the first quarter of 2019-20.

The LFPR in the urban areas of Jharkhand was about 10 percentage points less than that in the urban areas of the country in the second quarter of 2018-19, but remained only 0.5 percentage points less than it in the first quarter of 2019-20. Similarly, while the LFPR of the males in the urban areas of Jharkhand was about 13 percentage points less than that in the urban areas of the country in the second quarter of 2018-19, became 0.4 percentage points more than it in the first quarter of 2019-20. The LFPR of the females in the urban areas of Jharkhand was about 6 percentage points less than that of the country in the second quarter of 2018-19. It remained only 2 percentage points less than it in the first quarter of 2019-20. How the gap in the LFPRs in the urban areas of Jharkhand and in the urban areas the country has collapsed is evident from the table 10.4a and figures 10.1 and 10.2 given.

**Table 10.4a: Labour Force Participation Rate (LFPR) (in per cent) according to Current Weekly Status for the Age Group: 15-29 years**

	July-September 2018	October-December 2018	January-March 2019	April-June 2019	July-September 2019	October-December 2019	January-March 2020
Male	45.6	48.3	50.1	55.6	56.5	54.6	58.5
Female	10.3	9.6	10.6	6.9	8.9	18.1	17.3
Persons	27.9	28.6	30.5	29.4	31.4	37.1	39.0
All India Male	58.1	58.3	57.9	58.4	58.7	58.8	58.1
All India female	16.9	16.7	16.0	16.3	17.7	18.4	19.3
All India Person	38.0	38.2	37.7	38.2	38.9	39.4	39.5

There has been increase in the LFPR among the age group of 15 years and above to between July- September 2018 and January- March 2020 in the urban areas. The LFPR among this age group in the urban parts of the state increased by about 13 per cent, while that in the urban areas of the country increased by a minimal 3 per cent. Only in this period. The LFPR of the males in the urban parts of the state has increased by 7.8 per cent whereas that of the females in the urban areas of the state increased by 26 per cent during this period. The LFPRs of the males and females in the urban areas of the country have increased by 0.3 and 11.7 per cent respectively in the same period.

Since the LFPRs in the urban areas of the state have

increased faster than that in the urban areas of the country. The gap between the two has decreased. The LFPR in the urban areas of Jharkhand was about 13 percentage points less than that in the urban areas of the country in the second quarter of 2018-19, but remained only 3 percentage points less than it was in the first quarter of 2019-20. Similarly, while the LFPR of the males of Jharkhand was about 6 percentage points less than that of the country in the second quarter of 2018-19, it remained only one percentage points less than it in the first quarter of 2019-20. The LFPR of the females of Jharkhand was about 7 percentage points less than that of the country in the second quarter of 2018-19, remained 6 percentage points less than it was in the first quarter of 2019-20.

**Table 10.4b: Labour Force Participation Rate (LFPR) (in per cent) according to the Current Weekly Status for the Age Group: 15 years and Above**

	July-September 2018	October-December 2018	January-March 2019	April-June 2019	July-September 2019	October-December 2019	January-March 2020
Male	67.6	68.2	68.4	67.9	68.3	70.6	72.9
Female	12.7	12.4	12.6	10.7	11.6	16.7	16.0
Persons	39.9	40.1	40.7	38.6	39.3	44.1	45.1
All India Male	73.5	73.6	73.4	73.3	73.9	73.8	73.7
All India female	19.6	19.5	19.1	19.0	20.3	21.1	21.9
All India Person	46.7	46.8	46.5	46.5	47.3	47.8	48.1

As in the age group 15 to 29 and 15 years and above, the LFPR of the people of all age groups in the urban areas of the state has also increased faster than that in the urban areas of the country. As a result, the gap between the two has narrowed down. The LFPR of the person of all age group in the urban areas of the state has increased by 17.1 per cent, while that in the urban areas of the country increased by 3.9 per cent only. In all age group

the LFPR of the males in the urban areas of the state has increased by 10.8 per cent while that in the urban areas of the country has increased by 0.7 per cent only. The LFPR of the females in the urban areas of the state has increased by 33.3 per cent while that in the urban areas of the country has increased by 13.1 per cent only. As a result, the LFPR in the urban areas of Jharkhand in this age group, which was about 6 percentage points less



than that in the urban areas of the country in the second quarter of 2018-19, became 2 percentage points less than it was in first quarter of 2019-20. Similarly, while the LFPR of the males of Jharkhand was about 6 percentage points less than that of the country in the second quarter of 2018-19, remained only 1 percentage points less than

it was in the first quarter of 2019-20. The LFPR of the females of Jharkhand was about 6 percentage points less than that of the country in the second quarter of 2018-19. It remained 4 percentage points less than it was in the first quarter of 2019-20.

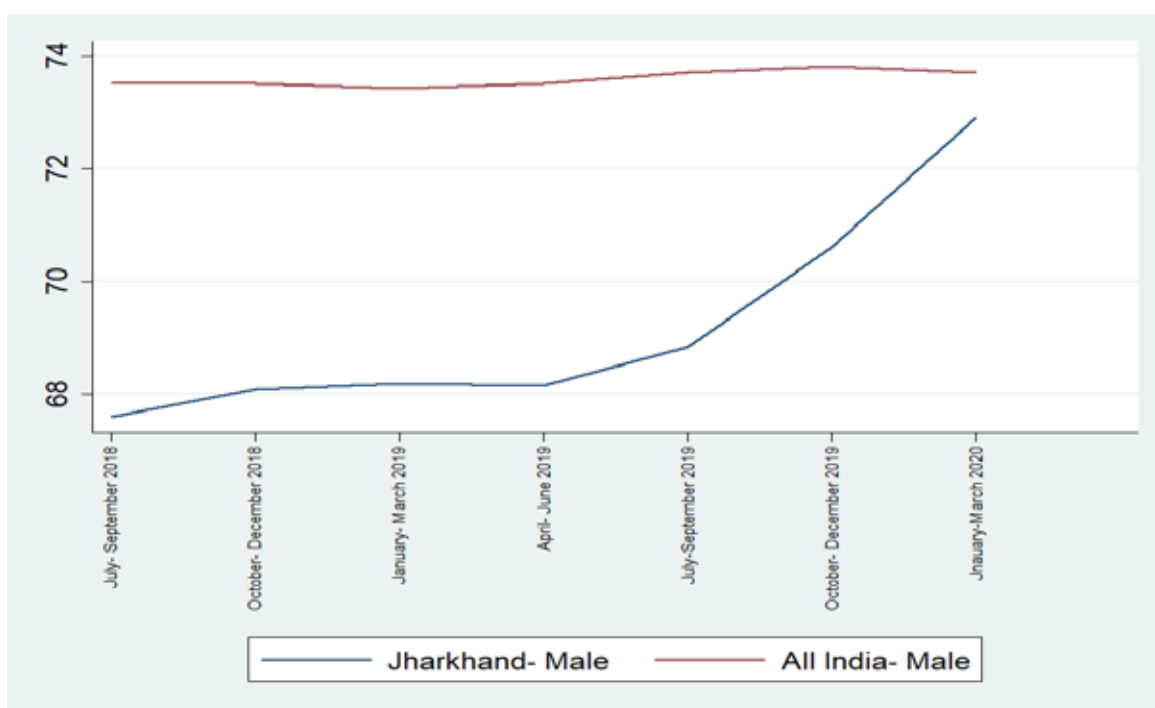
**Table 10.4c: Labour Force Participation Rate (LFPR) (in per cent) according to the Current Weekly Status for all Age Groups: All age Groups**

	July- September, 2018	October- December, 2018	January- March, 2019	April- June, 2019	July- September, 2019	October- December, 2019	January- March, 2020
Male	49.9	50.4	50.1	51.8	51.6	53.4	55.3
Female	9.6	9.5	9.6	8.4	9.5	13.5	12.8
Persons	29.8	30.1	30.4	29.9	30.6	34.1	34.9
All India Male	56.3	56.4	56.2	56.3	56.6	56.7	56.7
All India female	15.3	15.4	15.0	15.0	16.0	16.6	17.3
All India Person	36.1	36.3	36.0	36.2	36.8	37.2	37.5

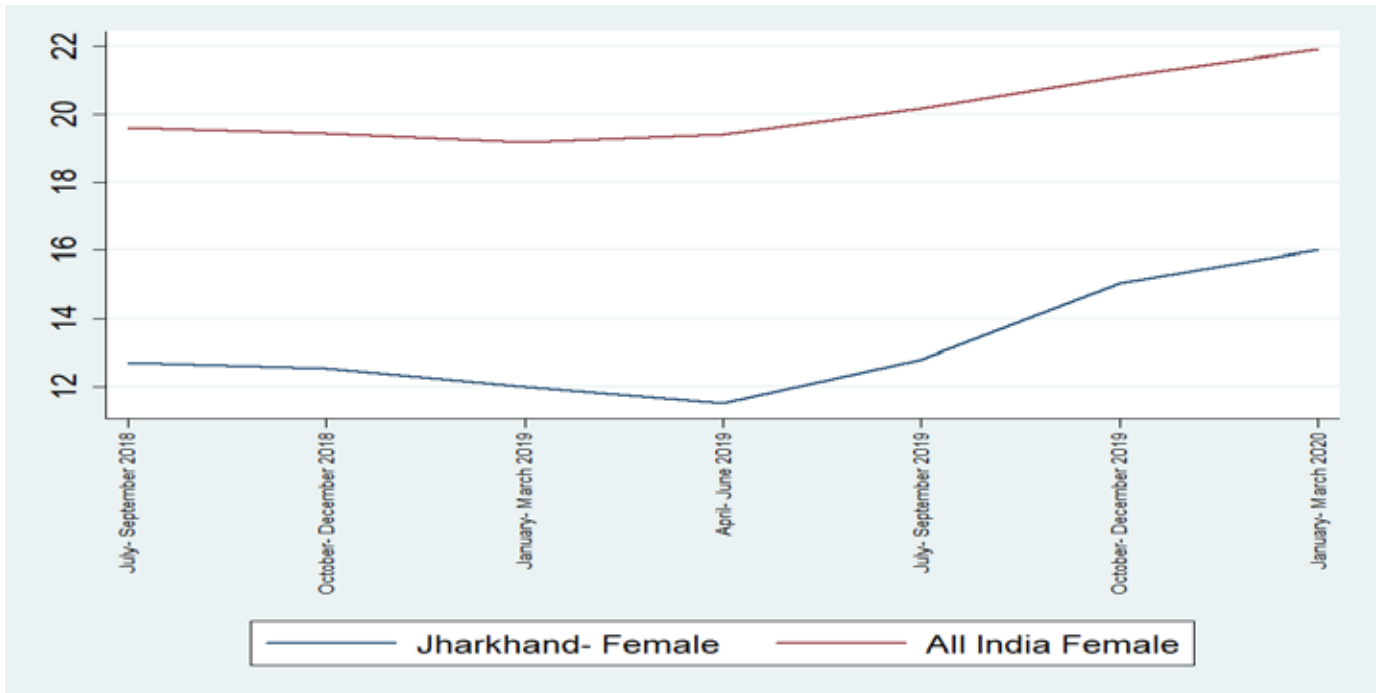
Following graphs 10.1, 10.2 and 10.3, show that the gap between the LFPR of urban Jharkhand and urban India has decreased for the age group of 15 years and above. Graph 10.1 reveals that the gap between the male LFPR of urban Jharkhand and urban India has almost narrowed down in January- March 2020, while graph 10.2 reveals that gap between the Female labour force participation of India and Jharkhand has not closed but has remained

parallel to each other. Due to the bridging of gap in the LFPR between the urban males of Jharkhand and the country and parallel gap in LFPR between urban females of Jharkhand and the country, there is decrease, though not substantially, in the overall gap between all persons of 15 years and above age group between Jharkhand and the country.

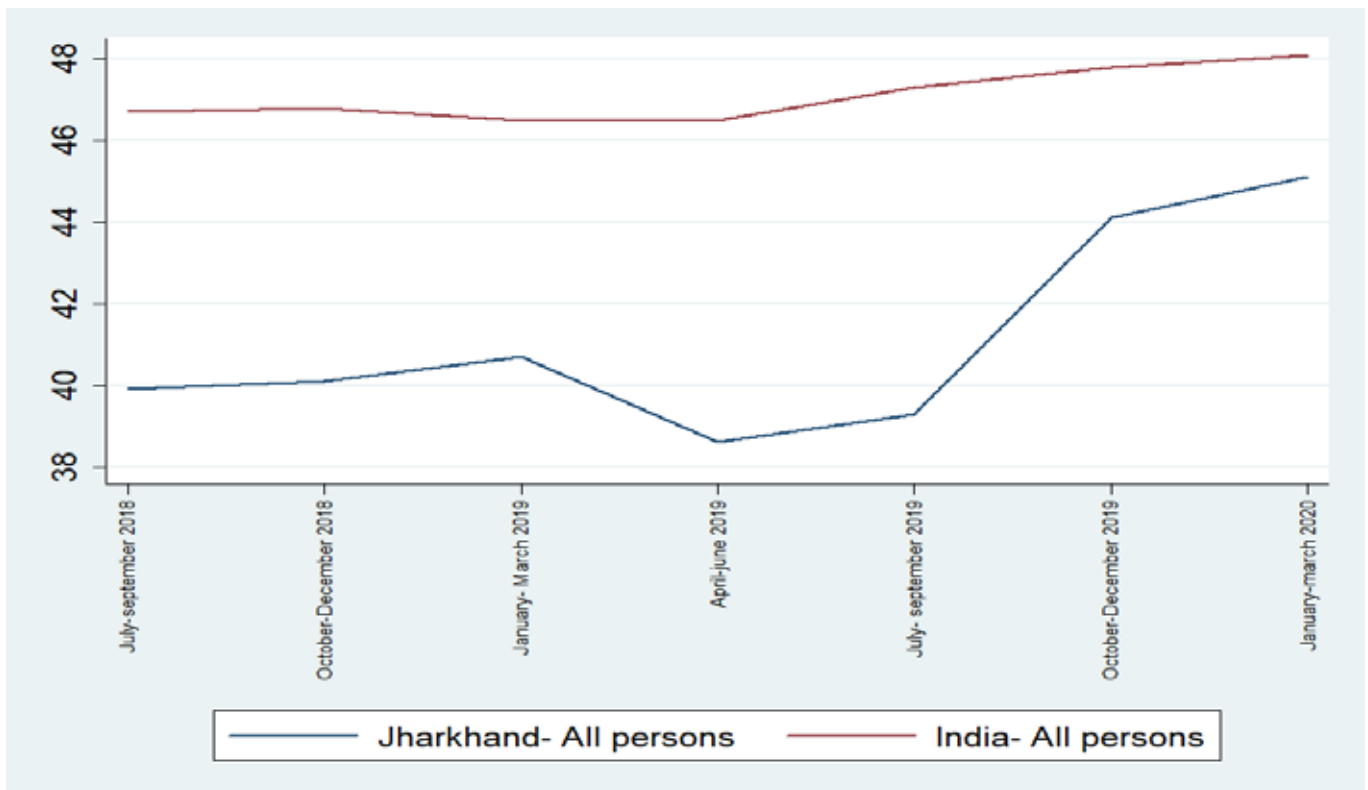
**Figure 10.1: Labour Force Participation Rate (LFPR) (in per cent) according to the current weekly status for Males of Jharkhand and that at the national level (15 years and above)**



**Figure 10.2: Labour Force Participation Rate (LFPR) (in per cent) according to the current weekly status for the females of Jharkhand and All India: 15 years and above**



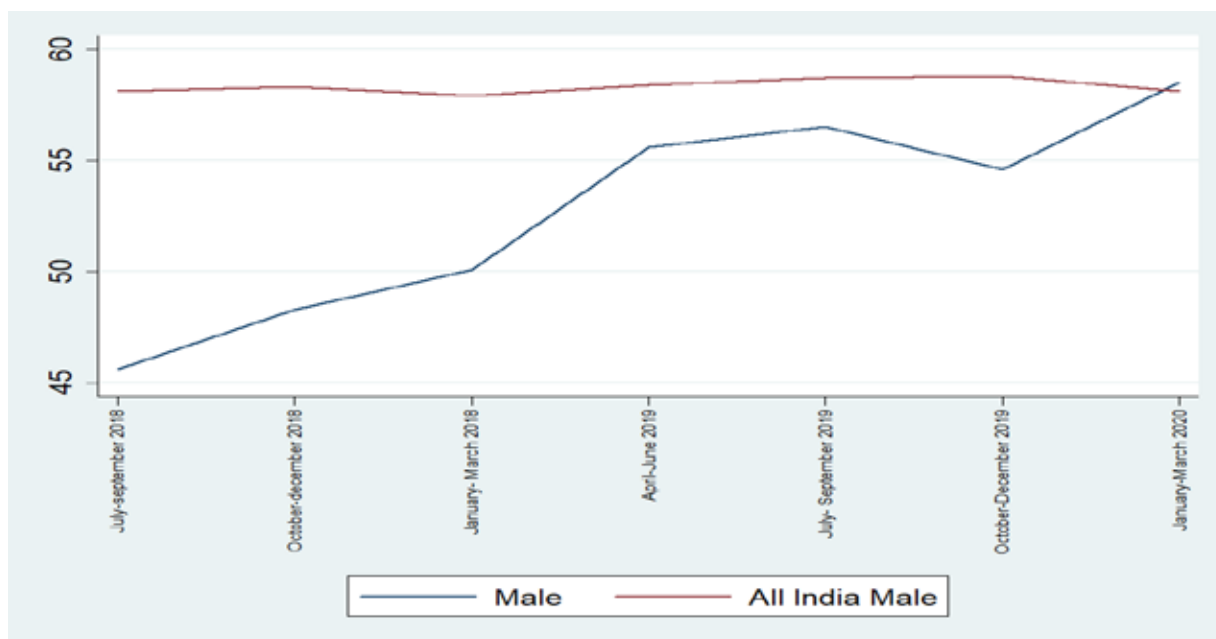
**Figure 10.3: Labour Force Participation Rate (LFPR) (in per cent) according to the current weekly status of all persons of Jharkhand and All India: 15 years and above**



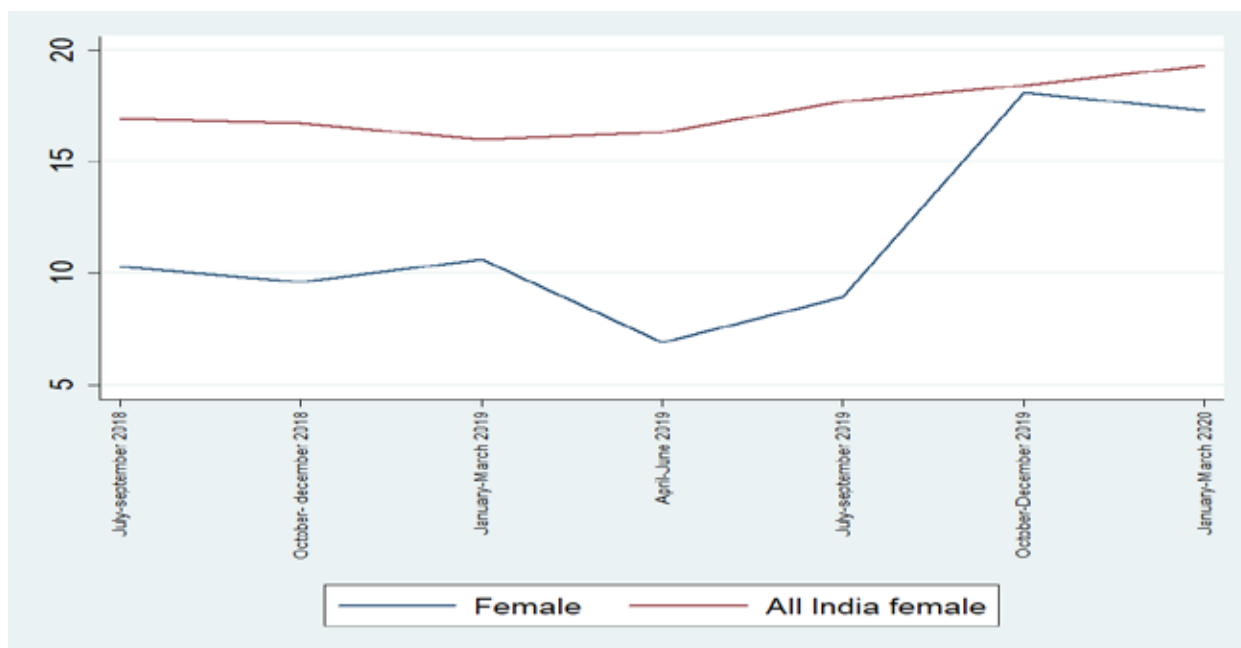
The graphs 10.4, 10.5 and 10.6, show that the gap between the LFPR of the urban males of Jharkhand and that of the urban males of the country has decreased to almost zero for the age group of 15 to 29 years. Graph 10.4 shows that the LFPR of the urban-males of Jharkhand became almost equal to that of the urban-males of the country by October-December 2019 and then exceeded the LFPR of the urban-males of the country in January- March 2020. Graph 10.5 shows that gap between the labour force participation of the females of the urban areas of

Jharkhand and India had almost become equal to zero in October-December 2019 but the gap between the two, however, increased after that but has still remained very low. Due to the decrease in the gap in the LFPR of the urban-males of Jharkhand and that of the country and a substantial reduction of gap in the LFPR of the urban females of Jharkhand and the country, there is a huge decrease in the gap between urban persons of age group 15 to 29 years of Jharkhand and that of the country. It is evident from graph 10.6 below.

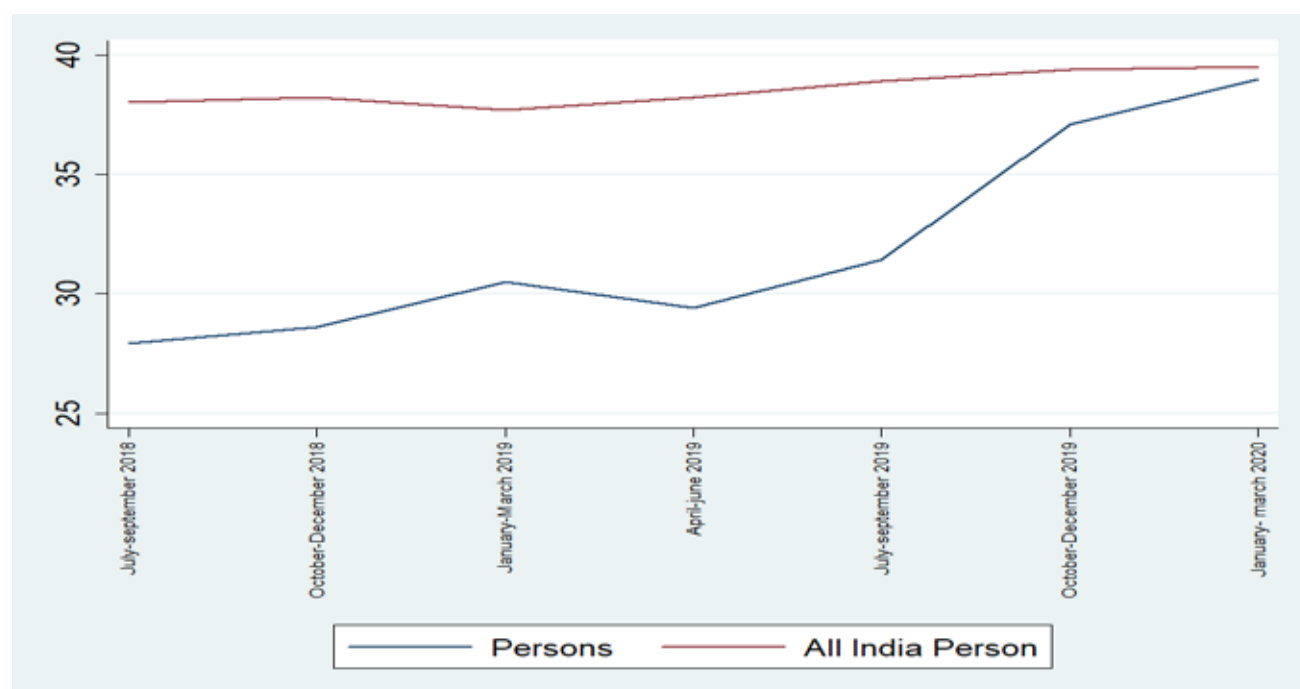
**Figure 10.4: Labour Force Participation Rate (LFPR) (in per cent) according to the Current Weekly Status for Males of Jharkhand and All India: 15-29 Years**



**Figure 10.5: Labour Force Participation Rate (LFPR) (in per cent) according to the current weekly status for females of Jharkhand and All India: 15-29 Years**



**Figure 10.6: Labour Force Participation Rate (LFPR) (in per cent) according to the current weekly status for all persons of Jharkhand and All India: 15-29 Years**



### Worker Population Ratio in Urban Jharkhand – Current Weekly Status (CWS)

The estimate of workforce in the CWS provides the number of persons worked for at least 1 hour on any day during the 7 days preceding the date of survey. There is an increase in worker population ratio for both the males and females in the urban areas of Jharkhand and all-India in the age group of 15 to 29 years, the WPR of the males of the urban areas of Jharkhand increased by 54.6 per cent while that of the country increased by about 1 per cent only between July- September 2019 and January- March 2020. The WPR of the females of the

urban areas of Jharkhand almost doubled between July-September 2019 to January- March 2020, while that of the urban-females of the country increased marginally by about 25 per cent. In the age group 15 years and the above, WPR increased by 7.3 per cent and 27.9 per cent for the males and females respectively in the urban areas of Jharkhand. The WPR in the urban areas of the country, for the same age group, increased by 0.5 per cent and 14.6 per cent, for the males and females respectively, in the country. The Increase in the WPR is quite substantial in the age group of 15 to 29 years in the urban areas of both Jharkhand and the country between July- September, 2019 and January- March, 2020.

**Table 10.5: Workforce Participation Rate (in per cent) according to current weekly status in Jharkhand (Urban) and All India (Urban)**

Survey Period	Jharkhand			All India		
	Male	Female	Persons	Male	Female	Persons
Age: 15-29 years						
July- September 2018	30.0	7.1	18.5	45.9	11.7	29.3
October- December 2018	34.5	6.7	20.3	45.4	11.8	29.1
January- March 2019	36.4	7.9	22.3	45.8	11.4	29.2
April- June 2019	44.6	5.3	23.5	46.6	11.8	29.9
July- September 2019	46.4	6.8	25.5	47.2	13.4	30.8

Survey Period	Jharkhand			All India		
	Male	Female	Persons	Male	Female	Persons
October- December 2019	45.2	16.2	31.3	48.3	14.0	31.9
January- March 2020	46.4	15.1	31.6	46.4	14.6	31.2
Age: 15 years and above						
July- September 2018	59.7	11.1	35.2	67.0	17.1	42.2
October- December 2018	61.4	11.0	36.0	66.9	17.2	42.2
January- March 2019	61.8	11.4	36.8	67.0	16.9	42.2
April- June 2019	62.0	9.8	35.3	67.3	16.9	42.4
July- September 2019	62.6	10.6	36.0	68.0	18.3	43.4
October- December 2019	64.8	15.9	40.8	68.4	19.0	44.1
January- March 2020	64.1	14.2	39.8	67.3	19.6	43.7
Age: all ages						
July- September 2018	43.9	8.4	26.2	51.2	13.4	32.6
October- December 2018	45.3	8.4	27.0	51.2	13.5	32.7
January- March 2019	45.3	8.7	27.5	51.3	13.3	32.7
April- June 2019	47.2	7.7	27.3	51.6	13.3	32.9
July- September 2019	47.3	8.7	28.1	52.1	14.5	33.7
October- December 2019	49.1	12.9	31.6	52.6	15.0	34.2
January- March 2020	48.7	11.4	30.8	51.7	15.5	34.1

### Unemployment rate in Urban Jharkhand – Current Weekly Status

According to the current weekly status (CWS) approach, a person is considered as unemployed if despite being available for work and seeking work he/she does not get it even for 1 hour during the week preceding the day of survey.

The rate of unemployment by CWS in the urban areas of Jharkhand and India was very high in the second quarter of 2018-19 (i.e. July- September 2018) both for the age group 15 to 29 years and 15 years and above. It started decreasing

thereafter and remained low in the fourth quarter of the financial year 2018-19 and the first three quarters of the financial year 2019-20. It again soared in the last quarter of the financial year 2019-20 (i.e. January- March 2020), however, it remained less than that of the second quarter of the financial year 2018-19. The unemployment in Jharkhand among the age group 15 to 29 years was about 1.7 per less in the fourth quarter of 2019-20 than that in second quarter of 2018-19 (July- September 2018). In India the unemployment in the age group 15 to 29 was about 6 per less in the fourth quarter of 2019-20 than that in second quarter of 2018-19 (July- September 2018).

**Table 10.6: Unemployment Rate (in per cent) according to Current Weekly Status in Jharkhand (Urban) and All India (Urban)**

Survey Period	Jharkhand			All India		
	Male	Female	Persons	Male	Female	Persons
Age: 15-29 years						
July- September 2018	11.9	12.4	12.0	8.9	12.7	9.7

Survey Period	Jharkhand			All India		
	Male	Female	Persons	Male	Female	Persons
October- December 2018	10.2	12.0	10.4	9.2	12.3	9.9
January- March 2019	9.6	9.1	9.5	8.7	11.6	9.3
April- June 2019	8.9	8.7	8.9	8.3	11.3	8.9
July- September 2019	8.3	8.1	8.3	8.0	9.7	8.4
October- December 2019	8.1	4.8	7.5	7.3	9.8	7.9
January- March 2020	11.9	10.9	11.8	8.7	10.5	9.1
Age: 15 years and above						
July- September 2018	11.7	12.0	11.8	8.9	12.6	9.6
October- December 2018	10.0	11.2	10.2	9.0	12.1	9.7
January- March 2019	9.6	9.1	9.5	8.6	11.6	9.2
April- June 2019	8.7	8.8	8.7	8.2	11.3	8.8
July- September 2019	8.3	8.5	8.3	8.0	9.7	8.3
October- December 2019	8.1	5.0	7.6	7.3	9.8	7.8
January- March 2020	12.0	11.3	11.8	8.6	10.6	9.1

### COVID 19 and Unemployment in Jharkhand

The outbreak of corona virus (COVID- 19) has affected both, the lives and livelihoods of the people. It has disrupted trade, transport, supply chain, production, mobility of the workers and livelihood of millions of workers in the country. Because of the disruption in economic activities, many of the workers lost their jobs. The lockdown imposed by the government as a containment measure hit the job market severely. The unemployment reached its peak during the lockdown period. However, no official agency has assessed the impact of COVID-19 and the lockdown on the situation of employment in the country and its states. The CMIEs Consumer Pyramid Household Survey (CPHS) is the only available source which has provided data regarding unemployment in the country and its states.

As per the data provided by the CMIE (Centre for Monitoring Indian Economy), unemployment in Jharkhand was 10.6 per cent in January, 2020 and 11.8 per cent in February 2020, that is, in the period before the outbreak of COVID-19 and the imposition of the lockdown. The unemployment started soaring in Jharkhand after the imposition of lockdown on 23rd March, 2020 and that in the country on 25th March 2020<sup>4</sup>. It jumped from 8.2 per cent in March 2020 to

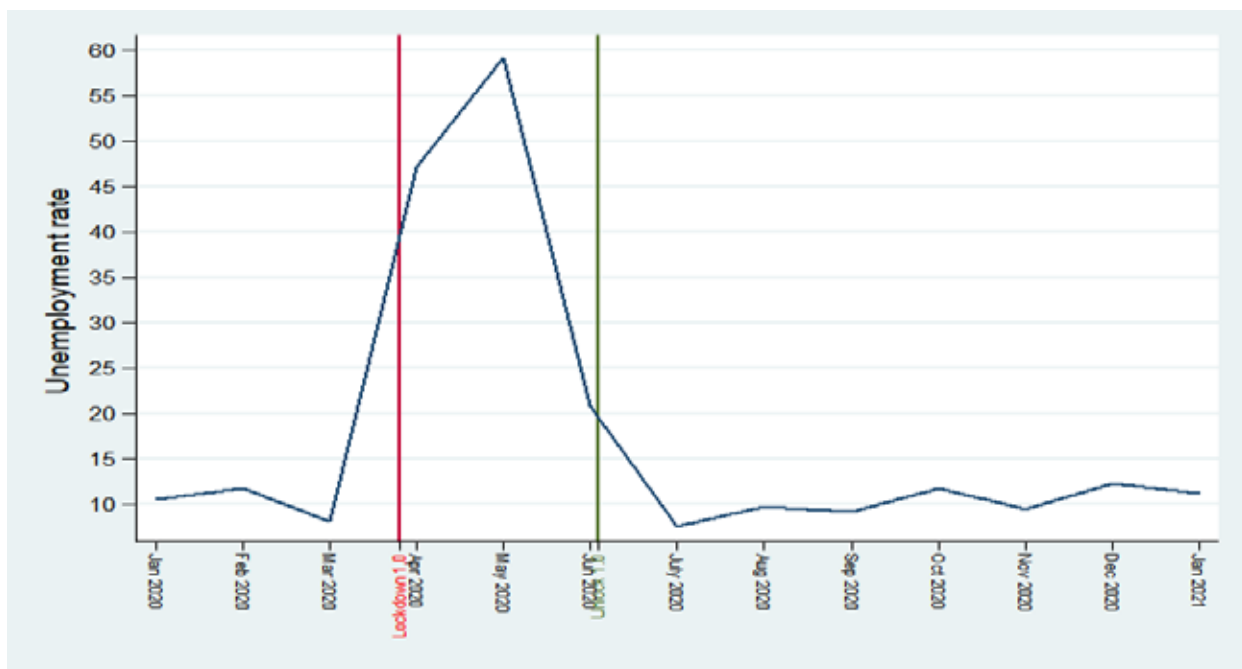
47.1 per cent in April, 2020 and reached its peak in May, 2020 when unemployment rate became 59.2 per cent. It started decreasing thereafter with the gradual relaxation of restrictions on economic activities. The rate of unemployment was reduced to 20.9 per cent in June, 2020 and further declined to 7.6 per cent in July 2020. The rate of unemployment in Jharkhand was 9.8 per cent in August, 2020, 9.3 per cent in September 2020, 11.8 per cent in October 2020, 9.5 per cent in November 2020, and 12.4 per cent in December 2020. In January, 2021, the rate of unemployment stood at 11.3 per cent in Jharkhand which is almost similar to the unemployment rate of January 2020 i.e. before lockdown had been imposed on the country and the state.

imposed on the country initially for 21 days on 25th March 2020 (Jharkhand had imposed the lockdown 2 days prior to the national lockdown on 23rd March, 2020). It was further extended by another 19 days till 3rd May, 2020 (2nd Phase of lockdown), for another 14 days till May 17 (3rd Phase of lockdown) and for another 14 days till 31st May (4th Phase of lockdown). All the states abided with it.

Relaxations of restrictions have been started in phases from 1st June, 2021. Some of the economic activities, where social distancing norm is difficult to be maintained are still under restrictions.

4 A very stringent nationwide Lock down was

**Figure 10.7: Unemployment Rate in Jharkhand from January 2020 to January 2021.**



Source: CMIE

**Box 10.1 Moonlighting – Economics of Multiple job holdings**

A person holding two or more jobs is said to be moonlighting, or participating in a secondary labour market. Multiple activities which mean pursuing more than one activity simultaneously reflect the inadequacy of employment. Many individuals who have been pursuing an economic activity as principal status are also engaged in other activities in subsidiary capacity.<sup>5</sup> According to PLFS 2017-18 among all the workers who were engaged in agricultural and allied activities as principal activities in Jharkhand, about 30.71 per cent of them were engaged in other subsidiary activities as well. An extensive literature has investigated the determinants of farm household involvement in the non-farm labour markets. Schultz noted that off-farm employment was an important means by which farm households can manage risk through diversification of income sources. Off farm employment is an avenue for managing the financial risks faced by farmers. Low earnings or wages in the agricultural activities also lead to involvement in other activities.

It is evident from the tables below that in both the years 2017-18 and 2018-19, among those engaged in multiple activities and working in the agricultural sector as the principal status workers, more than half of them are engaged in the construction sector and simultaneously as a subsidiary worker. Since the mining industry plays a vital role in Jharkhand, approximately 7 per cent of the workers who are working in the agriculture sector as the principal status worker, are engaged in manufacturing and mining activities as well.

On the other hand, a majority of those who are engaged in non-agricultural activities in the principal status, are also pursuing activities in the agriculture sector on a subsidiary status. Among those engaged in multiple activities in 2017-18, 96.10 per cent of the workers who are working in the construction sector as principal status workers, 78.57 per cent of workers who are working in the Manufacturing and mining as principal status worker and 76.32 per cent of workers who are working in the services sector as principal status worker are engaged in the agriculture and allied sector simultaneously as a subsidiary status workers. In 2018-19 among those engaged

5 This analysis is based on the subset of workers with multiple activities

in multiple activities, 93.62 per cent of the workers who are working in the construction sector as principal status worker, 66.67 per cent of workers who are working in the manufacturing and mining sectors as principal status workers and 71.88 per cent of workers who are working in the services sector as principal status workers are also engaged in the agricultural and allied sector as subsidiary occupation/workers.

While agriculture is not beneficial for almost half of the multi-job holders engaged in this sector who are pursuing on a full time basis, and also for a very large percentage of the non-farm sector workers particularly in the rural areas, agricultural activities had to be pursued on part time basis to augment the household earnings and sustain consumption. Hence, the rural non-farm activities do not appear to constitute a vibrant economy while agriculture is not able to offer sustainable livelihood to at least half of the multi-job holders engaged in this sector.

**Table 10.7: Subsidiary Activities of the Principal Activity Workers**

Principal Status	Subsidiary Status				Total
	Agriculture & Allied	Construction	Manufacturing & Mining	Service sector and others	
<b>2017-18</b>					
<b>Agriculture &amp; Allied</b>	12.16	58.11	6.76	22.97	100
<b>Construction</b>	96.10	0.00	0.00	3.90	100
<b>Manufacturing &amp; Mining</b>	78.57	0.00	0.00	21.43	100
<b>Service sector and others</b>	76.32	3.95	2.63	17.11	100
<b>Total</b>	63.07	19.09	2.90	14.94	100
<b>2018-19</b>					
<b>Agriculture &amp; Allied</b>	8.16	57.14	10.20	24.49	100
<b>Construction</b>	93.62	0.00	2.13	4.26	100
<b>Manufacturing &amp; Mining</b>	66.67	11.11	22.22	0.00	100
<b>Service sector and others</b>	71.88	0.00	3.13	25.00	100
<b>Total</b>	56.20	21.17	6.57	16.06	100

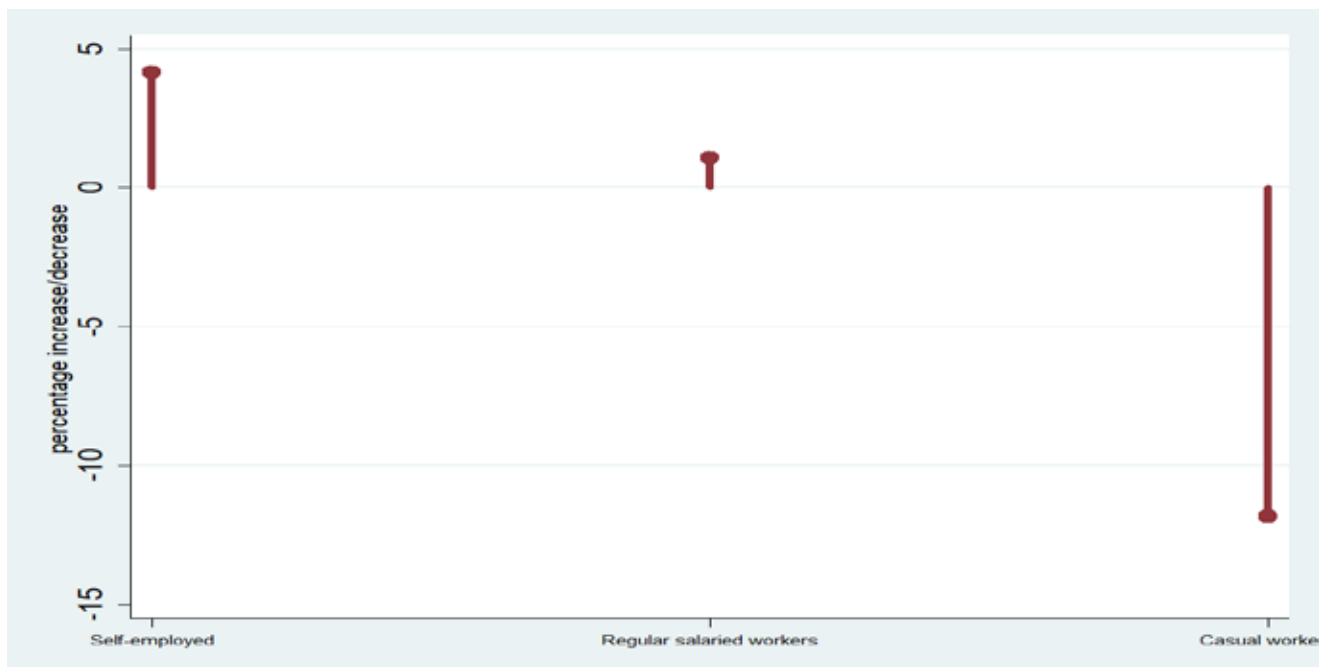
### Access to Social security benefits or written contracts

A written job contract mentioning the conditions of employment and access to social security are among the important indicators of a decent job. In 2017-18, 55.13 per cent of workers were self employed, 23.41 per cent were regular salaried workers (RWS) and 21.46 per cent were casual workers in Jharkhand. In 2018-19 57.42 per cent of workers were self employed, 23.66 per cent were

regular salaried workers and 18.92 per cent were casual workers. RWS workers are those who receive salary on regular basis and not on the basis of daily or periodic renewal of work contract while the casual workers are those who receive wage whenever they get job and have no assurance of continuation of job. RWS workers, thus, have some degree of income stability, which makes them better off than casual workers. But, all of them do not always have a secured job contract or/ and access to social security benefits.



**Figure 10.8: Percentage change in Types of workers between 2017-18 and 2018-19**



A very small proportion of the work force had jobs which offered them any social security. It is available only to the RWS workers and among them also very few have an access to it. In 2017-18 only about 29 per cent of the workers were eligible for any type of social security benefits and in 2018-19 only about 26 per cent of the workers were eligible for these benefits.

The table 10.8 below examines the social security benefits of the RWS workers by the types of job contracts they have. Only about 17 per cent of those who do not have a job contracts had access to any social security benefits in 2017-18 and about 16 per cent of such workers had access to these benefits in 2018-19. From among those who have written job contracts for 1 year or less, 48.85 per cent of the workers in 2017-18 and 38.46 per cent of the workers in 2018-19 were eligible for social security benefits.

From among those who have written job contracts for more than 3 years, about 89 per cent of the workers in 2017-18 and about 73 per cent of the workers in 2018-19 were eligible for social security benefits.

It is evident from these facts that a larger percentage of such workers who have a long term relationship with their firms and are likely to have acquired firm specific skills, enjoy social security benefits. The percentage of such workers, however, is low in Jharkhand and has fluctuated between 2 to 3 per cent of the total employment over the last few employment-unemployment surveys (2004-05, 2011-12 and 2017-18). This reaffirms the fact that as in India, job security is a privilege for a limited few at the state level to.

**Table 10.8: Distribution of Regular Wage Salaried Workers by the Type of Contract and Access to Social Security Benefits (2017-18)**

Eligibility of Social Security Benefits	No written job contract	Written job contract for 1 year or less	Written job contract for more than 1 year to 3 years	Written job contract for more than 3 years	Missing /not applicable	Total
Eligible for: only PF/pension (i.e., GPF, CPF, PPF, pension, etc.)	5.74	34.88	23.33	31.65	0.00	10.71
Only gratuity	0.08	0.00	0.00	0.00	0.00	0.07
Only health care & maternity benefits	0.00	2.33	0.00	0.46	0.00	0.13

Eligibility of Social Security Benefits	No written job contract	Written job contract for 1 year or less	Written job contract for more than 1 year to 3 years	Written job contract for more than 3 years	Missing /not applicable	Total
Only PF/ pension and gratuity	1.83	2.33	0.00	0.92	0.00	1.67
Only PF/ pension and health care & maternity benefits	1.41	2.33	6.67	1.38	0.00	1.54
Only gratuity and health care & maternity benefits	0.17	0.00	0.00	0.92	0.00	0.27
PF/ pension, gratuity, health care & maternity benefits	7.65	6.98	30.00	53.67	0.00	14.79
Not eligible for any of above social security benefits	74.90	37.21	36.67	8.72	0.00	63.39
Not known	8.23	13.95	3.33	2.29	0.00	7.43
Total	100.00	100.00	100.00	100.00	0.00	100

**Table 10.9: Distribution of Regular Wage Salaried Workers by the Type of Contract and Access to Social Security Benefits (2018-19)**

Eligibility of Social Security Benefits	No written job contract	Written job contract for 1 year or less	Written job contract for more than 1 year to 3 years	Written job contract for more than 3 years	Missing /not applicable	Total
Eligible for: only PF/ pension (i.e., GPF, CPF, PPF, pension, etc.)	4.84	7.69	27.78	13.08	0.00	6.65
Only gratuity	0.00	0.00	0.00	0.00	0.00	0.00
Only health care & maternity benefits	0.00	0.00	0.00	0.00	0.00	0.00
Only PF/ pension and gratuity	0.00	0.00	0.00	0.00	0.00	0.00
Only PF/ pension and health care & maternity benefits	1.84	30.77	5.56	7.48	0.00	3.26
Only gratuity and health care & maternity benefits	0.33	0.00	0.00	0.00	0.00	0.27
PF/ pension, gratuity, health care & maternity benefits	8.85	0.00	38.89	52.34	0.00	15.74
Not eligible for any of above social security benefits	80.80	61.54	27.78	25.23	0.00	71.10
Not known	3.34	0.00	0.00	1.87	0.00	2.99
Total	100.00	100.00	100.00	100.00	0.00	100

*Social security benefits of Regular wage/salaried workers in the Non-agricultural sector*

The non-agricultural sector here includes mining and quarrying, manufacturing, electricity, gas, water supply and air conditioning, sewerage, waste management and remediation activities, construction, wholesale and retail trade, repair of motor vehicles and motorcycles, transportation and storage, accommodation and food service activities, information and communication, financial and insurance activities, real estate activities, professional, scientific and technical activities, administrative and support service activities, Public administration and defense; compulsory social security, Education, Human health and social work activities, Arts, entertainment and recreation, Other service activities, Activities of households as employers, undifferentiated goods- and services producing activities of households for own use and activities of extraterritorial organizations and bodies.

While in 2017-18, 41.5 per cent of the RWS workers in non-agricultural sector were not eligible for paid leave

along with not having any job contract and without any Social Security Benefit<sup>6</sup> in Jharkhand against 38 per cent in India, this figure improved by 7 per cent in Jharkhand while deteriorated by 3 per cent in India. So in 2018-19, 38.7 per cent of the RWS workers in non-agricultural sector were not eligible for paid leave along with not having any job contract and without any Social Security Benefit in Jharkhand against 39.2 per cent in India. In 2017-18, almost 60 per cent of the RWS workers in non-agricultural sector were not eligible for paid leave against 54.2 per cent in India, the figures improved in the case of Jharkhand and in 2018-19 56.5 per cent of the RWS workers in the non-agricultural sector were not eligible for paid leave against 53.8 per cent in India. The gap between Jharkhand and India in Social security benefits in terms of those who were not eligible for paid leave reduced from 10 per cent in 2017-18, to 5 per cent in 2018-19.

6 Social security benefits here include PF/pension, gratuity, health care and maternity benefit.

**Table 10.10: Social security benefits of the Regular wage/salaried workers in the Non-Agricultural Sector in 2017-18**

SSB	Rural		Urban		Rural+Urban	
	Jharkhand	India	Jharkhand	India	Jharkhand	India
With no written job contract	75.4	69.2	58.8	72.4	67.7	71.1
Not eligible for paid leave	68.8	56.2	50.1	52.8	60.1	54.2
Without any social security benefit*	62.1	52.5	35.9	47.7	50.0	49.6
Not eligible for paid leave, without written job contract and without any SSB*	50.4	39.7	31.1	36.8	41.5	38.0

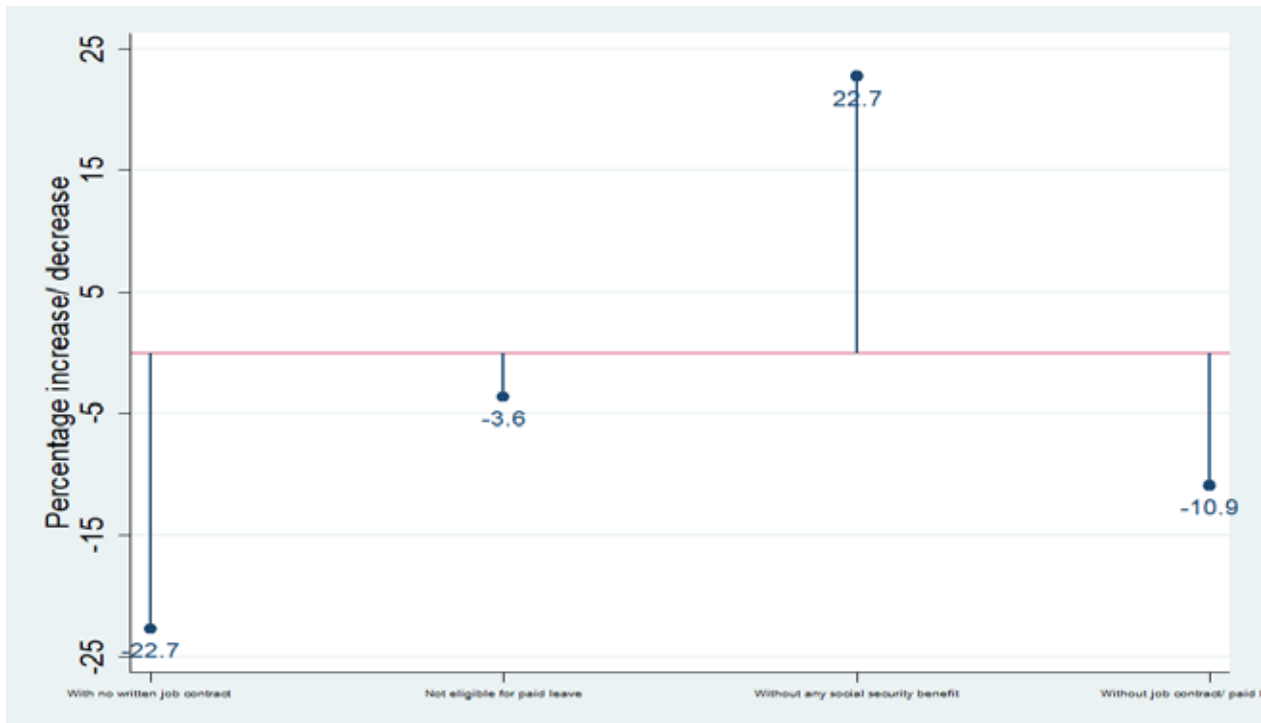
**Table 10.11: Social security benefits of the Regular wage/salaried workers in the Non-Agricultural Sector in 2018-19**

SSB	Rural		Urban		Rural+Urban	
	Jharkhand	India	Jharkhand	India	Jharkhand	India
With no written job contract	58.3	67.8	53.9	70.5	56.2	69.5
Not eligible for paid leave	66.3	56.7	46.2	52.0	56.5	53.8
Without any social security benefit*	76.2	55.9	43.9	49.4	60.5	51.9
Not eligible for paid leave, without written job contract and without any SSB*	44.9	41.4	32.2	37.8	38.7	39.2

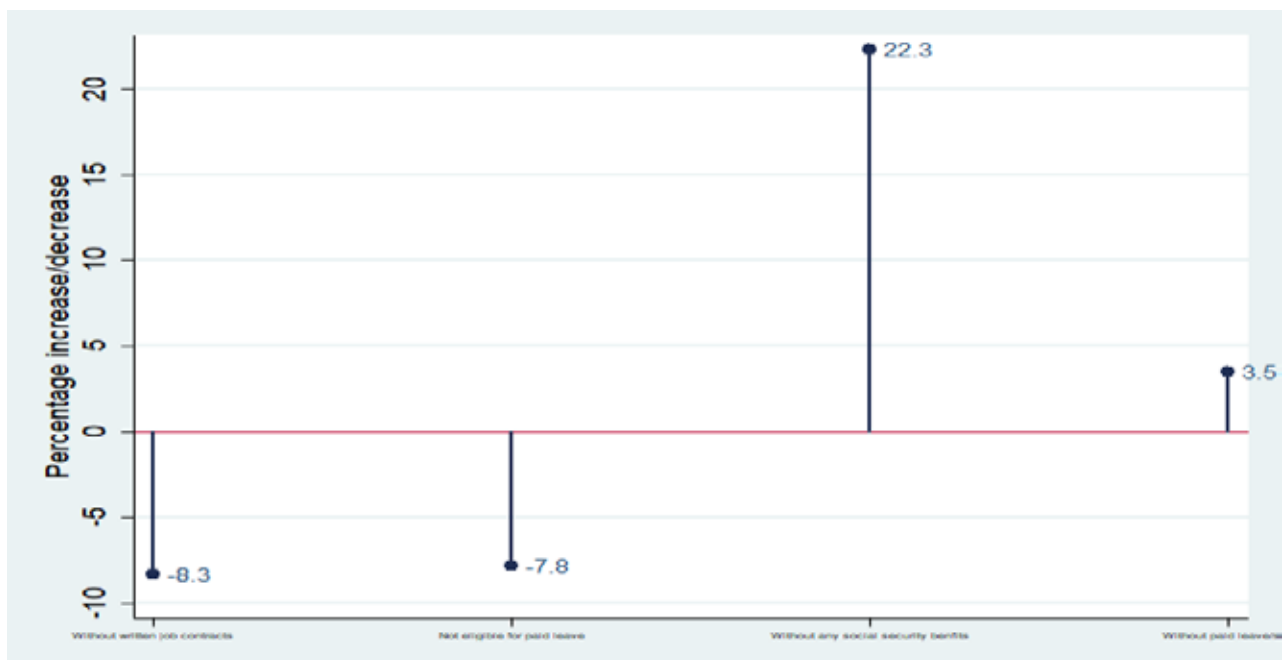
The following figures show the percentage change in social security benefits of the RWS workers who are engaged in non-agricultural sector in rural and urban Jharkhand. In rural Jharkhand there is decrease in the RWS workers who were without written job contract those, who were not eligible for paid leave and were with neither job contract nor paid leave nor any social

security benefits by 22.7 per cent, 3.6 per cent and 10.9 per cent respectively, whereas there is an increase in the RWS workers without any social security benefits by 22.7 per cent. Similar trend is found in urban Jharkhand as well. There is decrease in the RWS workers who were without written job contract and were not eligible for paid leave by 8.3 per cent and 7.8 per cent respectively.

**Figure 10.9: Change in social security benefits of the Regular wage/salaried workers in the non-agricultural sector in between 2017-18 and 2018-19 (Rural Jharkhand)**



**Figure 10.10: Change in social security benefits of the Regular wage/salaried workers in the non-agricultural sector in between 2017-18 and 2018-19 (Urban Jharkhand)**



**Education and Type of labour**

It is also worth noting that the most secure jobs are typically held by those who are more educated in 2017-18, among the workers who have a regular salary or wages, 30 per cent are graduate and about 37 per cent are postgraduates and above. In 2018-19, 22.17 per cent of the RWS workers were graduate and about 6 per cent of them were postgraduates and above. Most of the casual workers are either illiterate or have completed only primary education. In 2017-18, approximately 24 per cent of the casual wage workers were illiterate

whereas in 2018-19, the number increase to 29 per cent of Among the postgraduates in 2017-18, 79.41 per cent of the workers were engaged as the RWS workers and 19.12 per cent were self employed in In 2018-19 among postgraduates, 70 per cent were the RWS workers and 30 per cent were self employed. 26 per cent and 21 per cent of the casual wage workers had just completed their middle level education in 2017-18 and 2018-19 respectively. Persons with varying levels of education showcase the varying type of employment they that get. This will have an impact on the increase in earnings as the educational level increases and vice versa.

**Table 10.12: Types of Labour and their Scholastic Attainment in 2017-18**

	Self employed	Regular salaried/wage employee	Casual wage labour
Not literate	27.74	7.70	23.98
Literate without formal schooling	1.21	0.37	0.41
Below primary	5.12	2.48	6.64
Primary	9.28	5.96	11.79
Middle	20.25	14.91	25.75
Secondary	19.67	18.51	19.38
Higher secondary	8.54	12.05	8.54
Diploma/ certificate	0.16	1.24	0
Graduate	7.33	30.06	1.90
Postgraduate and above	0.69	6.71	0.14
Total	100	100	100

**Table 10.13: Types of Labour and their Scholastic Attainment in 2018-19**

	Self employed	Regular salaried/wage employee	Casual wage labour
Not literate	30.81	8.25	28.61
Literate without formal schooling	1.95	0.47	2.35
Below primary	3.69	2.59	5.31
Primary	8.65	5.42	15.04
Middle	21.09	15.80	21.24
Secondary	16.52	21.46	17.11
Higher secondary	9.33	16.51	7.96
Diploma/ certificate	0.19	1.18	0.29
Graduate	6.71	22.17	2.06
Postgraduate and above	1.07	6.13	0.00
Total	100	100	100

## Dependency Ratio

The dependency ratio relates the number of children (0-14 years old) and older persons (65 years or over) to the working-age population (15-64 years old). According to the UN, the dependency ratios indicate the potential effects of changes in the population age structures for social and economic development, pointing out broad trends in the needs of social support. The dependency ratio is the number of dependents in a population divided by the number of working-age people. The dependency ratios reveal the population breakdown of a country and how well its dependents can be taken care of. This ratio can help a nation set a policy and forecast its needs. In the United States, for example, it is most often used when discussing the viability of Social security because those benefits are paid for with payroll taxes (Kimberly Amadeo).

**Dependency Ratio =**

$$\frac{\text{Number of children}(0 - 14) + \text{Number of Pensioners} (\geq 65)}{\text{Number of Working age } 15 - 64}$$

The dependency ratio in Jharkhand was 57.5 in 2017-18 and it rose to 58.3 in 2018-19. The annual rise, though doesn't depict the actual policy implication, can compare the figure with the national average. India's dependency ratio was 47.5 in 2017-18 and slightly decreased to 46.6 in 2018-19.

**Table 10.14: Dependency Ratio in 2017-18 and 2018-19 in Jharkhand and All India**

year	Urban Jharkhand	Rural Jharkhand	Jharkhand	Urban India	Rural India	India
2017-18	46.2	60.5	57.5	41.4	50.2	47.5
2018-19	41.5	63.4	58.3	40.5	49.5	46.6

Rural Jharkhand has a high dependency ratio i.e., 60.5 and 63.4 in 2017-18 and 2018-19 respectively, whereas the dependency ratio in urban Jharkhand is 46.2 and 41.5 in 2017-18 and 2018-19 respectively. The dependency ratio of urban jharkhand decreased by 10.2 per cent while that of rural Jharkhand increased by 4.7 per cent. The Dependency ratio of both urban India and rural India decreased by 2.2 per cent and 1.4 per cent respectively.

The dependency ratio is an approximation to the ratio of net consumers to net producers. As a proxy for that ratio, the dependency ratio suggests that children under 15 years as well as persons aged 65 or over are economically dependent. In many populations, however, people do not stop being economically active at 65, nor is it true that

all persons aged 15-64 years are economically active. Although older persons often require economic support from others, in many societies they have economic resources of their own and provide support to their adult children. Furthermore, as the period of training for a productive life increases, most adolescents and young adults remain in school and out of the labour force, effectively extending the period of young-age dependency well beyond 15. Whenever available, the direct estimates of net producers and net consumers can be used for a more precise assessment and analysis of economic dependency.

## Women in the Labour Market

Women's unemployment in India is a multifaceted problem. Tremendous rush of female job-seekers within more or less an inflexible employment contour, the failure of our defective developmental process to unleash the locked up employment potential within the economy, inability of our women-folk to adapt themselves to quick economic transformation, low level of scholastic attainment especially in Jharkhand, highly prejudiced social norms resulting in partial willingness of the employers to employ women, widespread discrimination practised in the different productive sectors, the contraction of women's preference for certain selected occupations, unwillingness on the part of our educated women to go to villages due to the uncongenial atmosphere prevailing there, unhelpful attitude of the employers towards females and lack of provision of the adequate opportunities of their self employment ventures are the prominent causes of women's huge unemployment problem.

According to the PLFS 2017-18, the Female Labour Force Participation Rate was 10.9 per cent in Jharkhand against 50.4 per cent of Male Labour Force Participation Rate. In 2018-19 the Labour Force Participation Rate increased to 14.3 per cent against 51.9 per cent of Male Labour Force Participation Rate. Still for such low Female Labour Force Participation Rate as compared to the Male Labour Force Participation Rate not only in Jharkhand but in India and South Asia as well, there has been number of explanations. In recent years, there has been considerable debate on the various explanations for this puzzling trend. Most studies, including Dasgupta and Verick (2016), focus on four key drivers of the decline: firstly, increased enrolment in secondary schooling; secondly, rising household incomes, which pulled women out of the drudgery of agricultural labour;

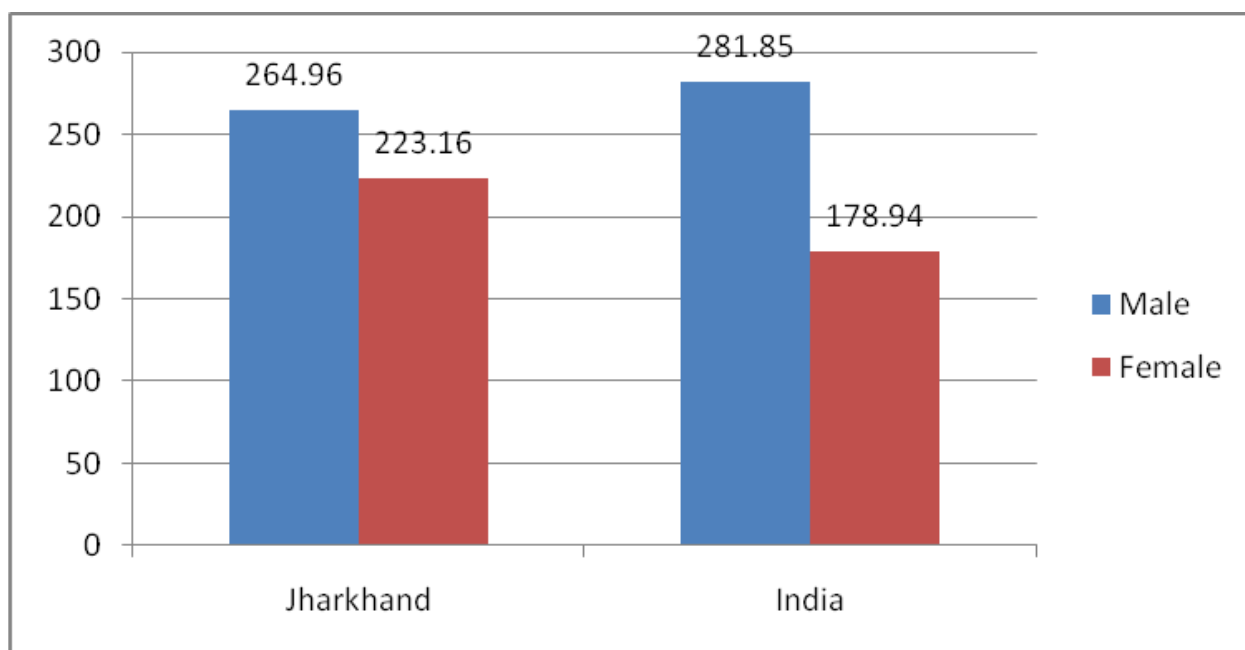
thirdly, mis-measurement of women’s participation in the labour force; and finally, the lack of employment opportunities for women in the non-farming sector. Based on small-sample primary surveys, there is also some evidence that the mechanization of agriculture has contributed to the decline in demand for female agricultural labour (ILO).

According to the International Labour Organization, while vulnerable employment is widespread for both women and men, women tend to be overrepresented in certain types of vulnerable jobs: men are more likely to be working in their own-account employment while women are more likely to be helping out in their households or in their relatives’ businesses. From fig 1 we can see that there is disparity in the average wage earnings per day from causal labour works other than public works among the males and the females which is calculated from PLFS 2017-18 and PLFS 2018-19 in the Currently Weekly Status. In 2017-18, the wage of women in rural Jharkhand per day are 15.8 per cent less than that of the males whereas the per day wage of women in rural India is approx 36 per cent less than that of male. Though the magnitude of discrimination against the women in Jharkhand is less than that of whole India it is apparent that the gap is there which is because of

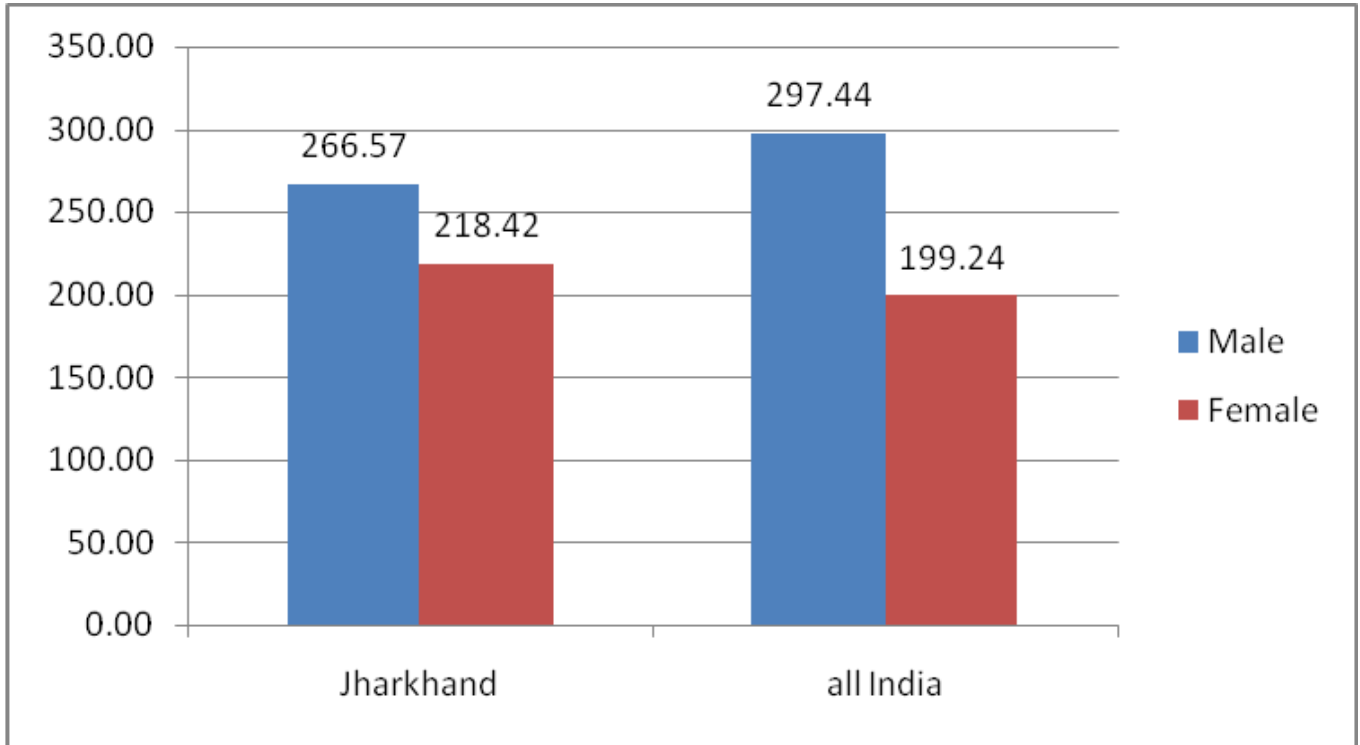
a lot of factors in the labour market and workstation as well. The wage gap between the men and women has been intensively investigated for a number of decades. In 2018-19, the wage of women in rural Jharkhand per day is 18 per cent less than that of male whereas per day wage of women in rural India is approx 33 per cent less than that of the males. Though the magnitude of discrimination against the women in Jharkhand is less than that at the all India the gap between male and female wage has increased more for jharkhand as compared India Level, it is apparent that a gap is there which is because of a lot of factors in the labour market and workstation as well.

In 2017-18, the females of urban jharkhand earned 4.8 per cent more wage per day compared to the males, whereas in urban India females earn 40 per cent less wages per day against the males. This low wage of females in urban India can be because wage is calculated using the average of all states and some states might be performing worse than others. From in 2018-19 there has been a drastic change in females’ wage per day in urban Jharkhand. Females tend to earn 23 per cent less than the males whereas the females in urban India tend to earn approximately 33.5 per cent less than the males.

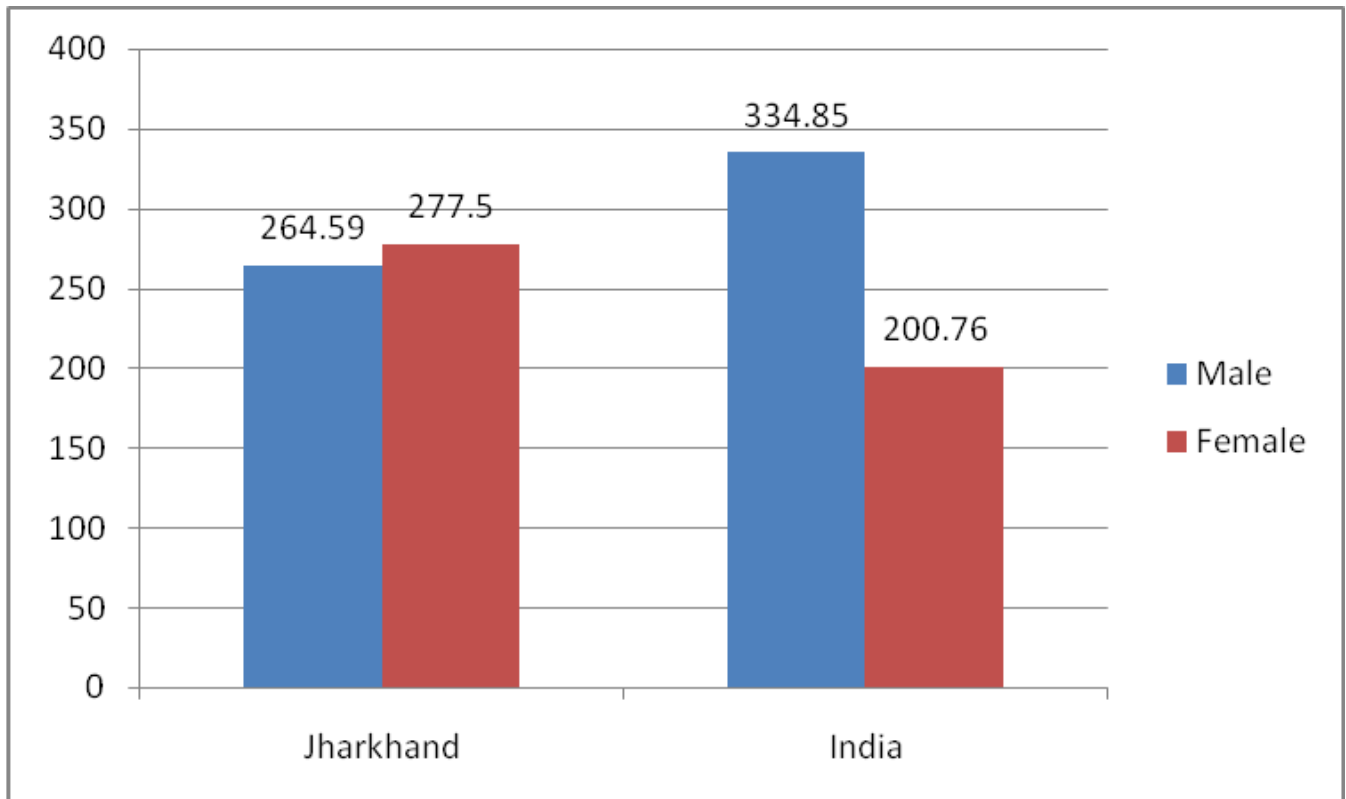
**Figure 10.11: Average wage earnings per day from causal labour work other than public work (in currently weekly status) in Rural Jharkhand and Rural India for the Males and Females in 2017-18**



**Figure 10.12: Average wage earnings per day from causal labour work other than public work (in currently weekly status) in Rural Jharkhand and Rural India for Male and Female in 2018-19**

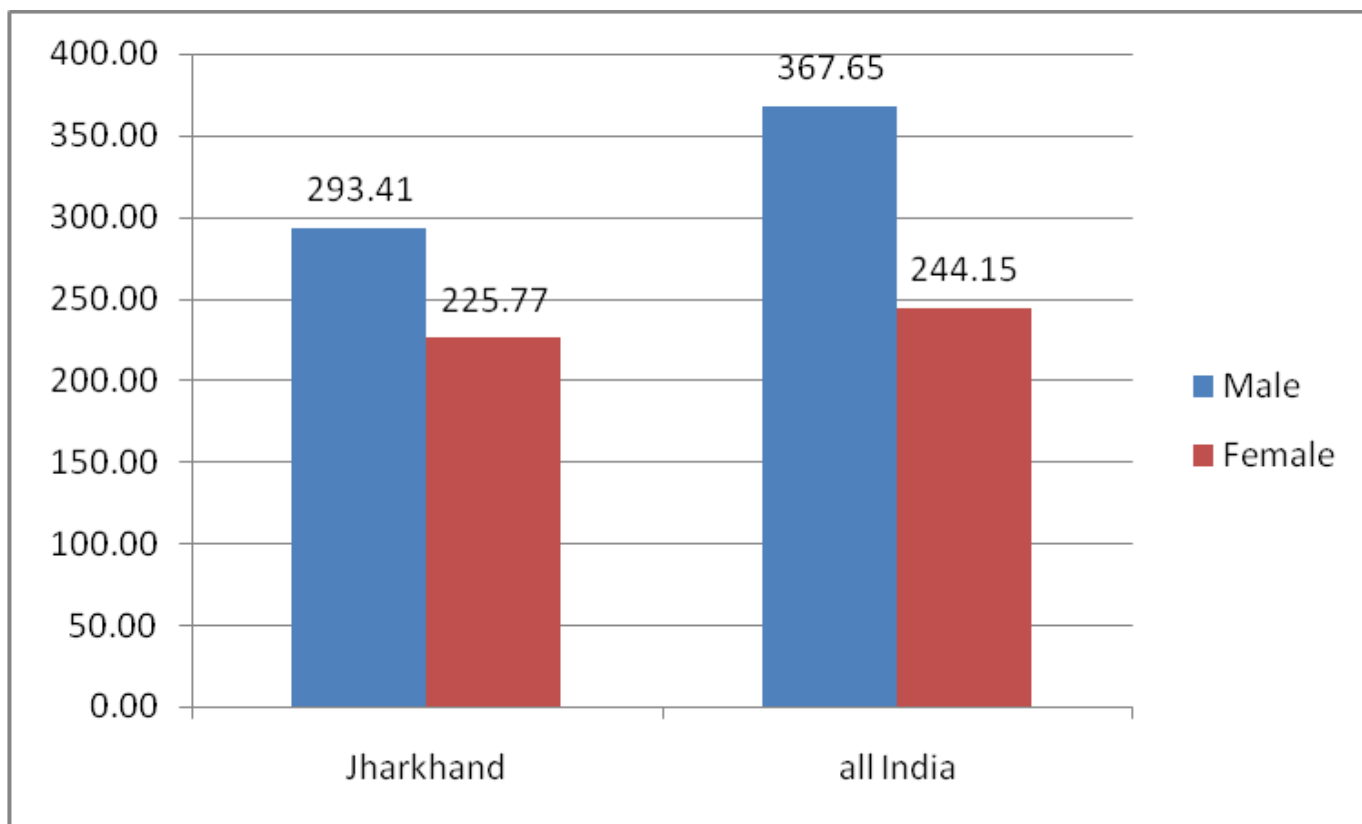


**Figure 10.13: Average wage earnings per day from causal labour work other than public work (in currently weekly status) in Urban Jharkhand and Urban India for the Males and Females in 2017-18**





**Figure 10.14: Average wage earnings per day from casual labour work other than public work (in currently weekly status) in Urban Jharkhand and Urban India for the Males and Females in 2018-19**



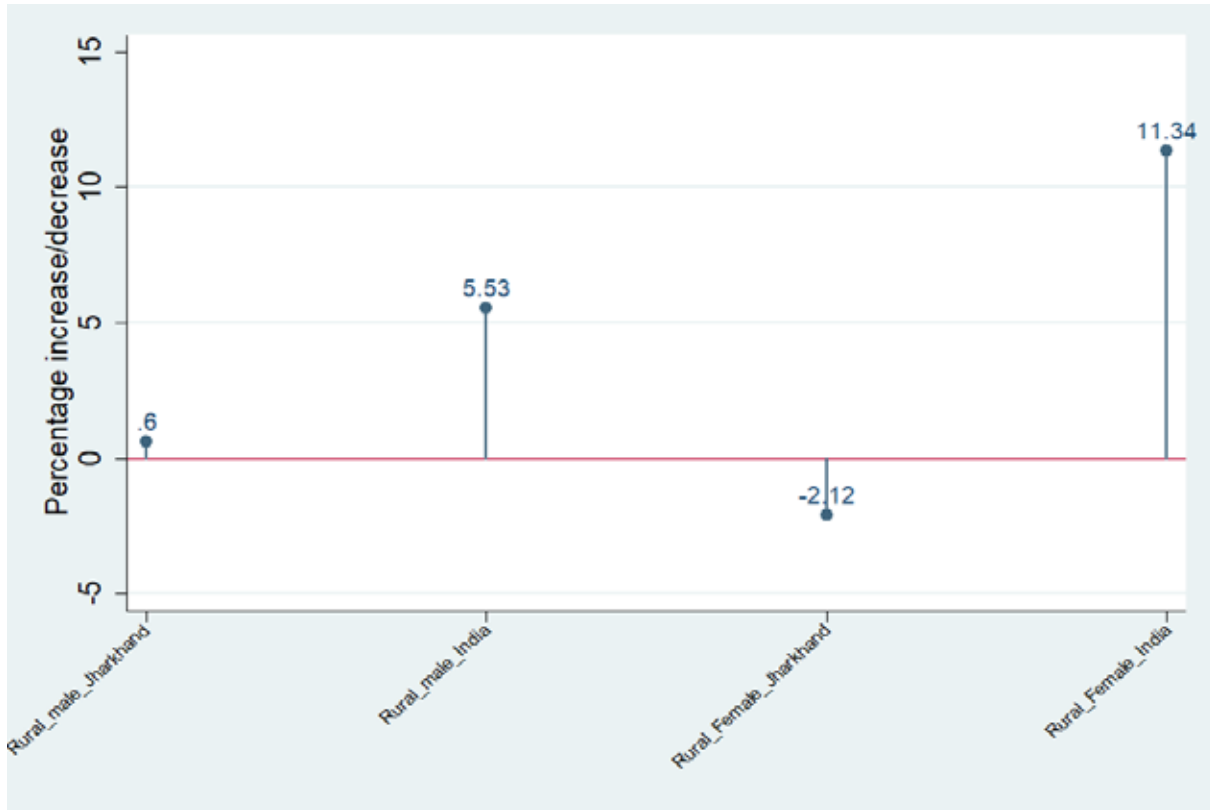
**Whether there is an Improvement or deterioration of wage between April-June 2018 to April-June 2019?**

From figures given below, we can see there have been changes in the average wage earnings per day for the males and the females of urban and rural Jharkhand as well as males and females of urban and rural India. From Fig 10.15 a we can see, per day wage of male in rural jharkhand has increased by only 0.6 per cent whereas for the males in rural India on an average has increased by 5.5 per cent. In the case of females, wage per day has decreased in rural Jharkhand by 2.12 per cent whereas in rural India it has increased by 11.34 per cent. This decrease in the wage of females of rural

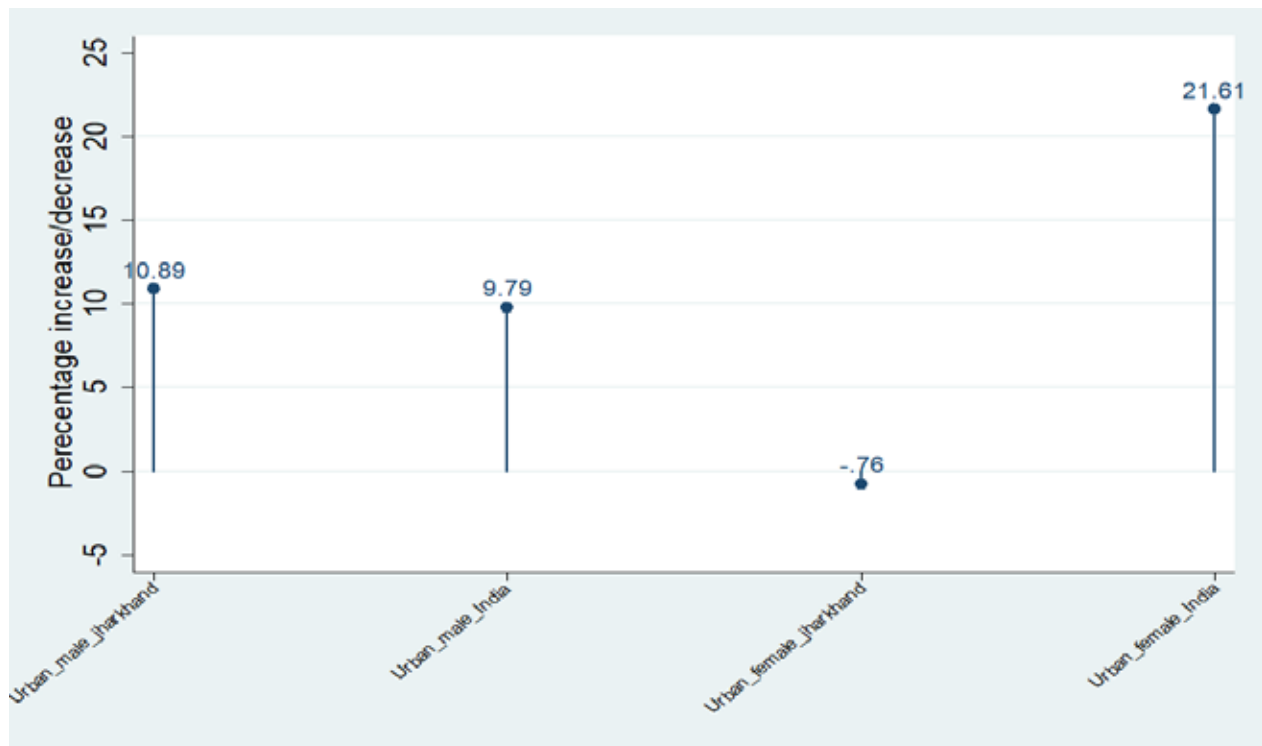
Jharkhand and the increase in wage of the females of rural India have led to the increasing gap between male and female wage which is more for Jharkhand as compared to that of India.

The Per day wage of male in Urban Jharkhand has increased approximately by 11 per cent which is slightly more than the wage of male in Urban India i.e. 9.8 per cent. For females of urban Jharkhand too there is a decrease in wage i.e. 0.76 per cent but for females of urban India there has been an increase in wage by 21.61 per cent. So, the wage of both the males and females shows greater improvement in urban areas as compared to that of the rural areas.

**Figure 10.15: Percentage change in the average wage earnings per day from causal labour work other than public work (in the currently weekly status) in between 2018 and 2019 [Rural]**



**Figure 10.16: Percentage change in the average wage earnings per day from causal labour work other than public work (in currently weekly status) in between 2018 and 2019 [Urban]**



### U shaped Curve hypothesis on the Female Labour Force Participation Rate in Jharkhand

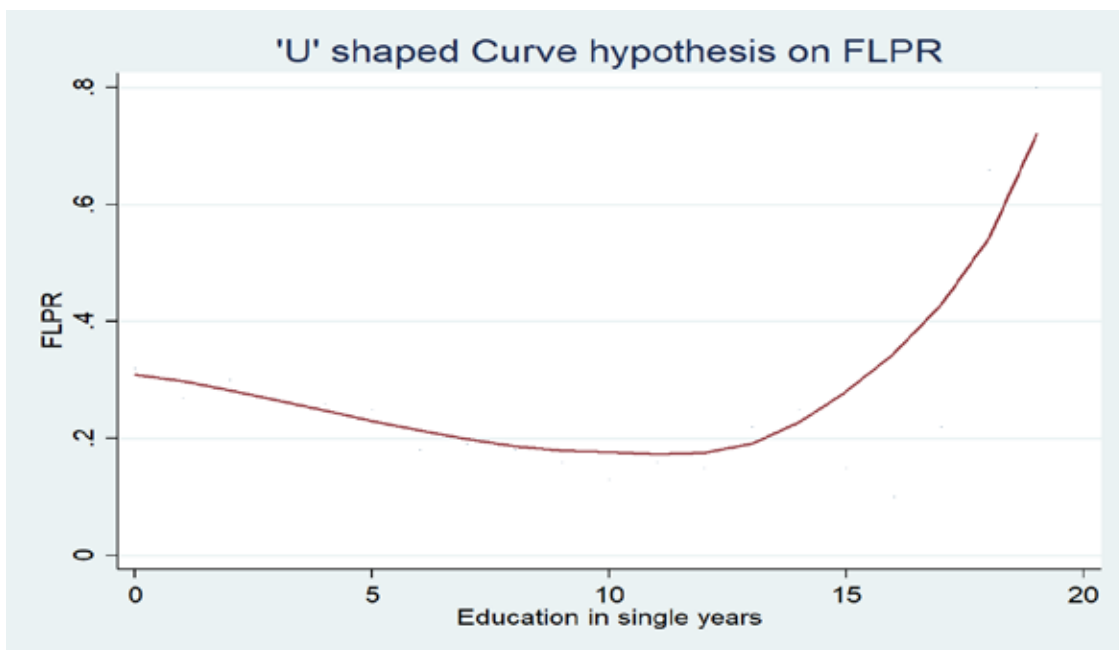
Though there is progress in narrowing the gender gaps in education, health, and political representation, there has not been much improvement in the labour market outcomes for females. The global data shows that there has been no increase in the female labour force participation rate (LFPR) and no decrease in the wage and LFPR gap between men and women. We can see the gap between the males and females of Jharkhand as well. Claudia Goldin (1994) had stated that economic development leads to U – shaped female labour participation rate curve in which it has been hypothesized that the FWPR decline initially with economic development, and then rose to the plateau before rising again giving it the U shape. Claudia Goldin gave the ‘U’ shaped female labour force function curve and she related it to the level of education and the emergence of the white collar sector jobs. The downward trend in the ‘U’ was due to the rise in income because of the expansion of markets and shift from farm activities to factory work; this she has denoted as the income effect on the female participation rate. However, when educational level rises and as the value of women’s time in the market increases they move back into the paid labour force, which is reflected in the rising portion of the U-shaped curve; this has been stated as the substitution effect.

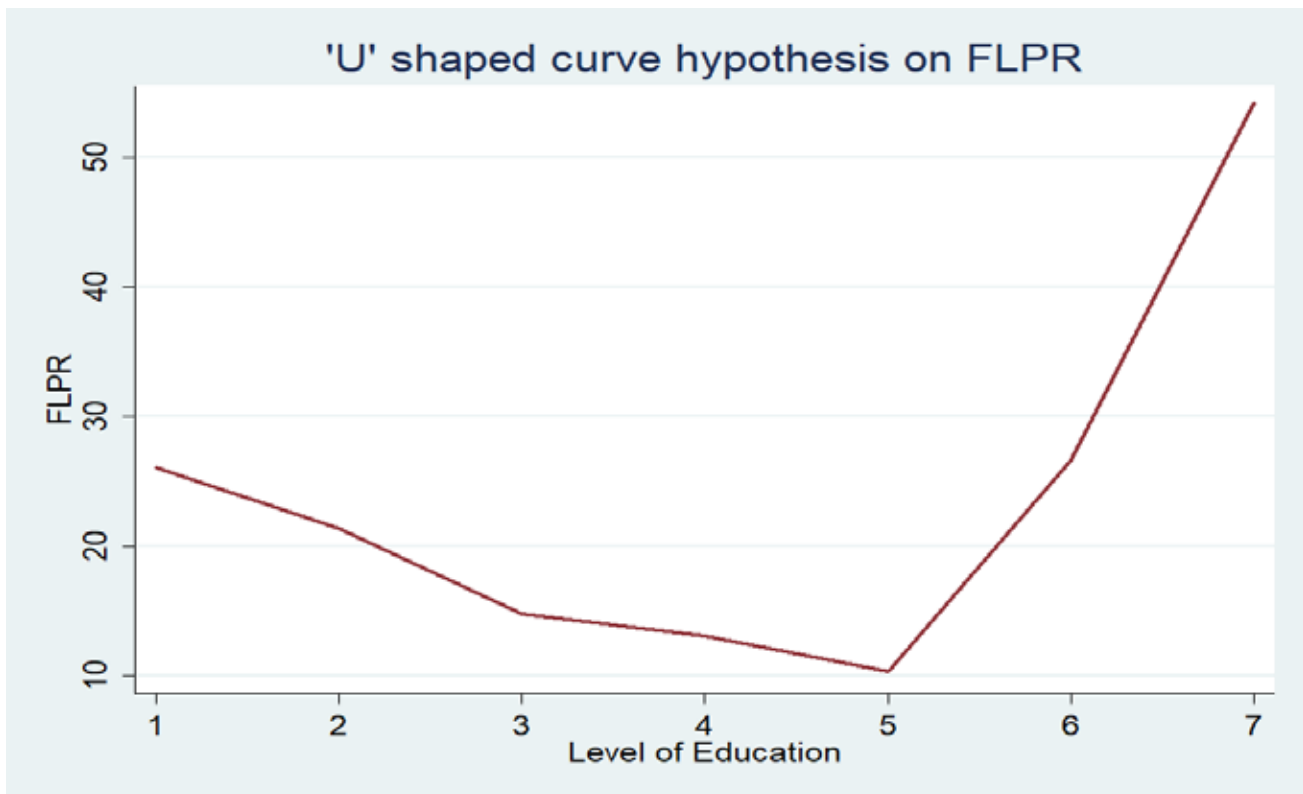
Figure 10.17 and figure 10.18 show the levels of education and the female labour force participation rate depicting

that in Jharkhand the relationship between the level of education in single years and the female participation rate gives an almost inverted U – shaped curve. The past studies have suggested that both cultural factors, such as norms restricting the mobility of women, and structural factors, such as lack of appropriate job opportunities for educated women, play important roles in determining the U-shaped relationship between women’s education and labour force participation in India (Das and Desai, 2003; Das 2006).

In figure 10.17, we can see that there is a continuous decline of labour force participation among women when they have completed 12 to 13 years of education. But after that when women achieve 15 or more years of educational qualification, there is increase in the LFPR. It posits that the educated women have higher incomes for the same amount of work encouraging them to devote more time to leisure or home work. In addition, and more importantly, educated women tend to marry educated men with higher incomes so the higher (unearned) family incomes would further discourage women’s participation in the labour market. In addition, and more importantly, educated women tend to marry educated men with higher incomes so the higher (unearned) family incomes would further discourage women’s participation in the labour market. Combined with a cultural norm that confers a higher status on women at home, other source of family income can act as powerful deterrents to educated women’s labour force participation.

**Figure 10.17: U shaped curve hypothesis – Evidence from NFHS-IV**



**Figure 10.18: U shaped curve hypothesis – Evidence from PLFS, NSSO, 2018-19****Conclusion:**

The LFPR among the males and females of urban Jharkhand and that of all India has substantially decreased over a period of time. For age group of 15 to 59 years, the increase in the LFPR of rural Jharkhand is higher than that of urban Jharkhand. But due to COVID pandemic, many people lost their employment in both the urban and the rural area of Jharkhand and so their livelihood opportunities get affected. Under this backdrop, migrant workers form the most vulnerable group who return to their hometowns. A large section of the workers do not have any written job contracts or social security benefits or both. While the coverage of the social security benefits considerably increased in non-agricultural sector in Jharkhand between 2018 and 2019, most secure jobs are however held by the more educated. Most of the casual workers in Jharkhand are

either illiterate or have completed primary education only. It was found that most of the people who were engaged in agriculture as the principal activity were also engaged in some other activity to either increase the source of income or reduce the risk of financial security. The Government has taken many initiatives like National Career Service (NCS) which serves as a platform for addressing all career-related needs of the youth and students. The NCS provides information related to jobs and manpower-requirement both at the state as well as at the national level. Recruitment camps and job fairs are very good initiatives to bring in local job seekers and employers on a common platform. In the financial year 2019-20, so far (December, 2019), 3363 persons have got jobs in 35 recruitment-camps and job fairs.



# Chapter 11

## Education





Jharkhand lags behind the national average in most of the indicators of educational development. It, however, is catching up with the national average rapidly. The literacy rate of Jharkhand, which was about 17 per cent less than the national level in 2001, has become only 6 per cent less than the national level in 2018-19. The literacy-rate of females has increased faster than that of the males. As a result, the gender-parity-index of Jharkhand is becoming almost equal to that at the national level.

The literacy-rate in Jharkhand has improved over time. It has increased by about 37 per cent in the last 20 years. The literacy-rate of the females has increased faster than that of the males. As a result, the gender-parity-index of the state has improved from 0.58 in 2001 to 0.82 in 2018-19. This has happened because of an improvement in almost all the indicators of educational development. The enrolments of the students at all levels of education has improved, the number of educational institutions has increased, the repetition and drop-out rates have decreased, the pupil-teacher ratio has improved and the quality of education has also become better.

### Literacy-rate in Jharkhand

The literacy-rate<sup>1</sup> was very low in Jharkhand in 2001. Only about 53 per cent of its population of 7 years and above was literate. About 67 per cent of males and 39 per cent of females of the state were found to be literate in the census of 2001. The literacy-rate in the state both for the males and females has improved over the years. The literacy-rate increased at an average annual rate of 2.2 per cent between 2001 and 2011, 1.9 per cent per annum between 2011 and 2014, 0.7 per cent per annum between 2014 and 2017-18 and 1.9 per cent between 2017-18 and 2018-19. Though the literacy-rate of the males has been higher than that of the females, the rate of improvement in the literacy-rate of the females has been higher than that of the males. While the literacy-rate among the males has increased at an average annual rate of 1.3 per cent between 2001-2011, 1.2 per cent per annum between 2011 and 2014, 0.5 per cent per annum between 2014 and 2017-18 and 0.4 per cent between 2017-18 and 2018-19; that of the females has increased

1 As per Census, a person aged seven years and above, who can both read and write with understanding in any language, is treated as literate and all those who cannot read and write are considered illiterate. For calculating literacy rate from NSS data (India Education Report, 2014 and PLFS 2017-18 and 2018-19) similar definition has been used.

at the average annual rate of 3.6 per cent between 2001-2011, 2.6 per cent per annum between 2011 and 2014, 1.5 per cent per annum between 2014 and 2017-18 and 5.8 per cent between 2017-18 and 2018-19. As a result, the gender-gap has gradually narrowed down in the period of 2011-12 to 2018-19.

The gender-parity index, which measures the relative rates of literacy of the males and the females<sup>2</sup>, was as low as 0.58 in 2001. It meant that the literacy-rate of the females was 42 per cent less than that of the males in the state in 2001. Since the literacy rate of the females increased faster than that of the males, the gender-parity-index continued improving throughout the period from 2001 to 2018-19. It improved to 0.72 in 2011, 0.75 in 2014, 0.78 in 2017-18 and 0.82 in 2018-19. Thus, in 2018-19, the literacy rate of females was only about 18 per cent less than that of the males of the state. If this trend continues, soon, the literacy-rate among the females will become equal to that of the males.

Though the literacy-rate in Jharkhand is less than that of the national average, the state is catching up with the national average rapidly. The literacy-rate of Jharkhand, which was about 17 per cent less than that of the national level in 2001, has become only 6 per cent less than that of the national level in 2018-19. The literacy-rate of the females of the state is catching up faster with that of the national level faster than that of the males. The literacy-rate of the females of the state which was 27.6 per cent less than that of the national level in 2001, has become only 6.6 per cent less than that of the national level in 2018-19.

As a result of faster growth in the literacy-rate of the females, the gender-parity-index of Jharkhand is becoming almost equal to that of the national level. While the gender-parity-index of the state was 23.5 per cent behind the national average in 2001, it lagged behind the national average by 2.1 per cent in 2018-19. The gap in the gender-parity-index of the state and the national average decreased gradually to 10.5 in 2011, 7.2 in 2014, 6.9 in 2017-18 and finally to 2.1 in 2018-19.

2 The Gender Parity in literacy rate is calculated by dividing the literacy rate of females by the literacy rate of males. If the value of this index is equal to 1 there is perfect gender parity. Lower the value of gender parity higher is the gender disparity in literacy rate.



**Table 11.1: The Literacy Rate of Jharkhand and All India over the years**

	2001			2011			2014			2017-18			2018-19		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Jharkhand	67.3	38.87	53.56	76.84	55.42	66.41	79.6	59.9	70.3	80.7	62.6	71.8	81.0	66.2	73.2
All India	75.26	53.67	64.83	82.14	65.46	74.04	83.2	67.1	75.4	83.9	69.6	76.9	85	70.9	78.1
Average annual growth	Jharkhand				1.3	3.6	2.2	1.2	2.6	1.9	0.5	1.5	0.7	0.4	5.8
	All India				0.9	2.0	1.3	0.4	0.8	0.6	0.3	1.2	0.7	1.3	1.9
Gap in the literacy-rate of Jharkhand and India in (per cent)	10.6	27.6	17.4	6.5	15.3	10.3	4.3	10.7	6.8	3.8	10.1	6.6	4.7	6.6	6.3

Source: For 2001 and 2011 Census of India and for 2014 and 2018 NSSO, MoSPI, May 2019

**Table 11.2: Gender Parity in Literacy Rate**

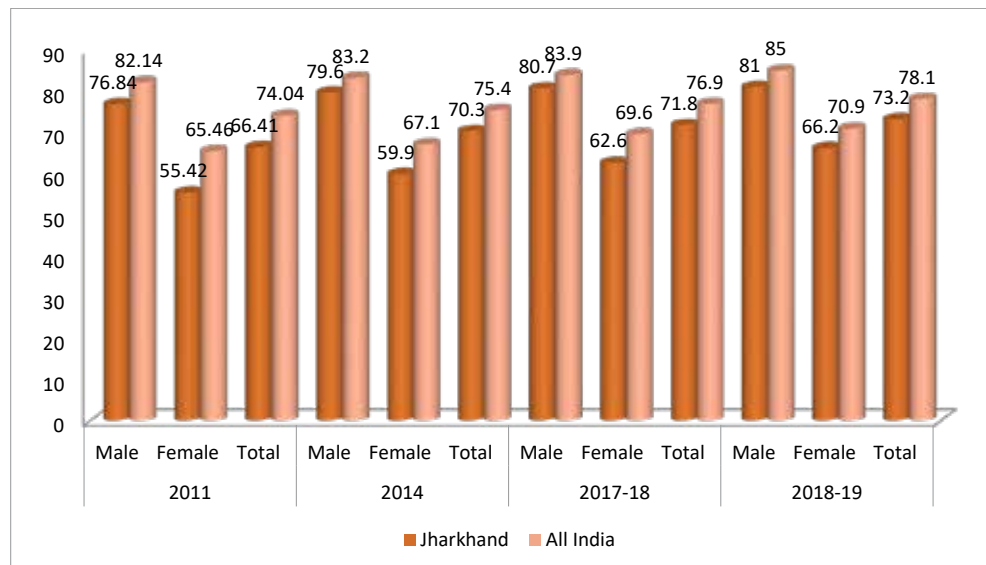
	2001	2011	2014	2017-18	2018-19
Jharkhand	0.58	0.72	0.75	0.78	0.82
All India	0.71	0.80	0.81	0.83	0.83

Source: For 2001 and 2011 Census of India and for 2014 and 2018 NSSO, MoSPI, May 2019

The decrease in gap in the literacy-rate of Jharkhand and of India over the years is also evident from the figure below. It shows that not only has this gap between

Jharkhand and the national average been reduced but also the gap between males’ and the females’ literacy rates has also narrowed down further .

**Figure 11.1: The Literacy-Rate of Jharkhand and (All India) over the years**

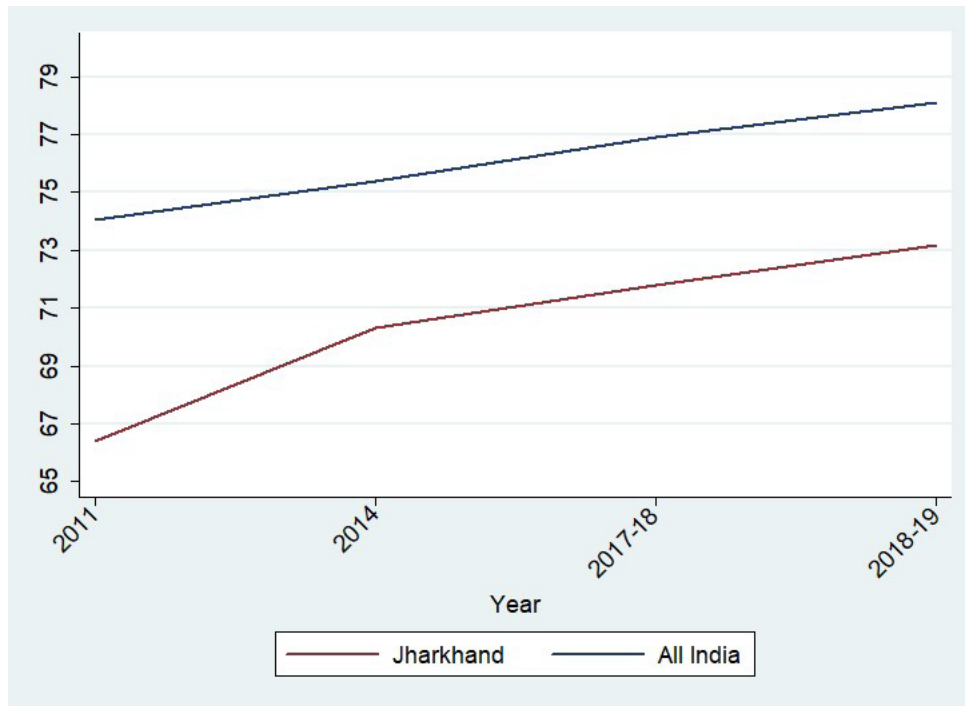


Source: Based on the Census of India and NSSO (MoSPI) data.

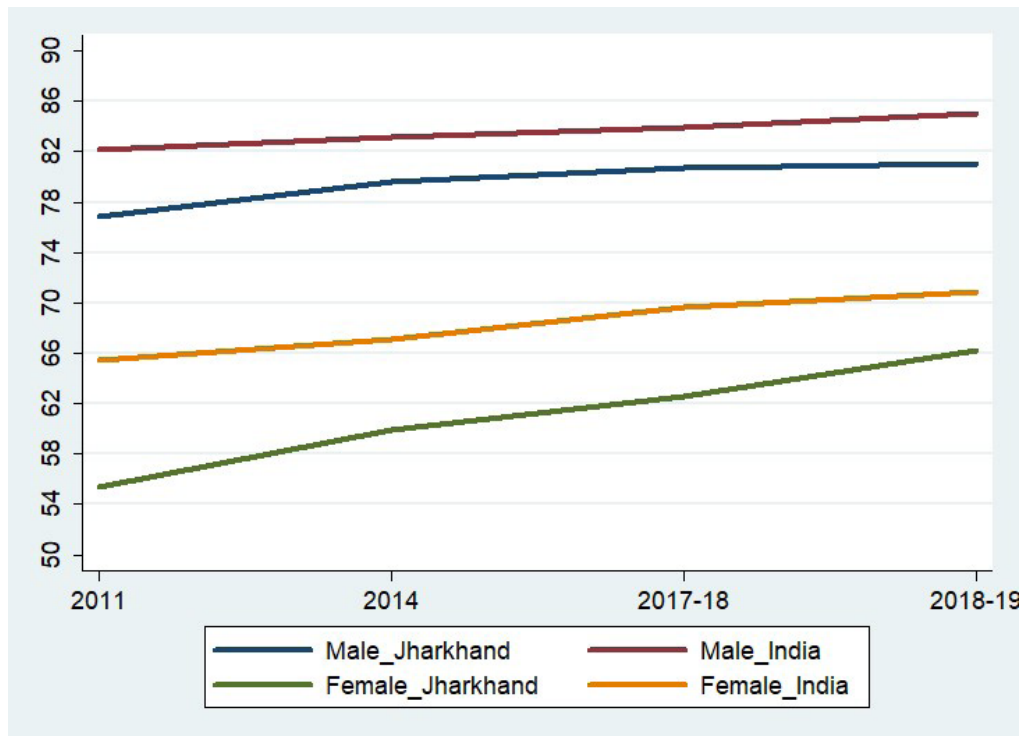
The fact that the gaps in the literacy-rates between the country and the state and between the males and the females have narrowed down over the years, is also evident from the figures given below. Figure 11.2 (A) shows that the gap between the overall literacy rates of the country and the state has narrowed down over the

years. Figure 11.2 (B) shows that the literacy rate of the males is higher than that of the females both at the national and the state levels. This gap between Jharkhand and the country has decreased further when compared with the gap between the male-female literacy both in India and the state.

**Figure 11.2 (A): Literacy-Rate of Jharkhand and India over the years**



**Figure 11.2 (B): Improvement in the Literacy-Rates among the Males and the Females of Jharkhand and India over the years**



**The Rural-Urban-Divide in the Literacy-Rates**

The literacy-rate in the rural areas is much less than that in the urban areas and for the females of the rural areas it is much less than that of the males of the urban area. As a result the gender-parity-index in the rural areas is less than that in the urban areas. Though the rural-urban-

disparity is evident at the all India-level also, it is more pronounced in Jharkhand. However, the years, such gaps in the literacy-rates of the rural and the urban areas of Jharkhand and that of the State and and the country level are, narrowing down rapidly. The gender-disparity in the literacy-rate in the rural areas is also decreasing

rapidly. In Jharkhand the literacy-rate of the males in the rural areas has increased from about 61 per cent in 2001 to about 81 per cent in 2018-19. At the same time, the literacy rate of the females in the rural areas of the state increased from about 30 per cent to around 61 per cent. The literacy rates of males and females in the urban areas of Jharkhand were 87 and 71 per cent respectively, in 2001, which increased to 93 and 79 per cent respectively, in 2018-19. As a result, between 2001 and 2018-19, the gender-parity in the literacy rate of Jharkhand has increased from 0.49 to 0.76 in the rural

areas and from 0.8 to 0.85 in the urban areas. Thus in Jharkhand, the rural-urban-disparity in the literacy-rates of the males has decreased from 30 per cent to about 13 per cent and that of the females from about 57 per cent to around 22 per cent in this period.

In this period the disparity between Jharkhand and India in the rural literacy rate of the males has decreased from about 14 per cent to 4.5 per cent and that of the females from about 35 per cent to about 5.3 per cent. The disparity between Jharkhand and all-India in the urban literacy rate had always been very nominal.

**Table 11.3: Literacy Rates and Gender Parity in Literacy Rates in the Rural and the Urban areas of Jharkhand and (All India) over the years**

	2011			2014			2017-18			2018-19			Gender Parity			
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	2011	2014	2017-18	2018-19
Jharkhand Rural	72.8	48.9	61.1	77	55.2	66.4	78.1	58.8	68.7	78.2	62.2	69.8	0.67	0.72	0.75	0.80
Jharkhand Urban	88.4	75.5	82.3	89.5	77.5	83.7	91.2	77.2	84.2	90.4	80.6	85.4	0.85	0.87	0.85	0.89
All-India-Rural	78.6	58.8	68.9	79.8	61.3	70.8	80.7	64.5	72.8	81.9	65.7	73.9	0.75	0.77	0.80	0.80
All-India-Urban	89.7	79.9	85	91.1	80.8	85.9	91.6	81.6	86.7	91.9	82.6	87.4	0.89	0.89	0.89	0.90
Rural-Urban disparity in Jharkhand	17.6	35.2	25.8	14.0	28.8	20.7	14.4	23.8	18.4	13.5	22.8	18.3	21.2	17.2	11.8	10.1
Rural-Urban disparity in India	12.4	26.4	18.9	12.4	24.1	17.6	11.9	21.0	16.0	10.9	20.5	15.4	15.7	13.5	10.1	11.1
Disparity between Jharkhand and India in the rural literacy rate	7.4	16.8	11.3	3.5	10.0	6.2	3.2	8.8	5.6	4.5	5.3	5.5	10.7	6.5	6.3	0.0
Disparity between Jharkhand and India in the urban literacy rate	1.4	5.5	3.2	1.8	4.1	2.6	0.4	5.4	2.9	1.6	2.4	2.3	4.5	2.2	4.5	1.1

**An overview of the Enrolment of Students in Jharkhand**

There has been an improvement in the literacy-rate and an important reason for this is the impressive enrolments of the students at all the levels of school-education. At present, about 75 lakh students are enrolled at different stages of school-education. About 10 lakh students are

enrolled at the secondary level and about 6 lakhs at the higher secondary level in Jharkhand. About 58 lakh students are enrolled at the elementary level, out of which about 38 lakh students are enrolled at the primary level and about 20 lakhs at the upper primary level.

**Table 11.4: Enrolment in the Elementary Sections**

Standard	2015-16	2016-17	2017-18	2018-19	2019-20
Primary	4453329	3940476	4074931	4022718	3885864
Upper Primary	2068314	1848665	2014774	2000129	1986400
Elementary	6521643	5789141	6089705	6022847	5872264
Secondary	1025613	884460	992307	969215	965599
Higher Secondary	559635	429224	654153	624620	650452
Total	8106891	7102825	7736165	7616682	7488315

Source: District Information System for Education (DISE) (Provisional data of 2019-20)

The enrolment for both boys and girls in grades VIII and X increased and that in grades IX and XI decreased between 2017-18 and 2018-19. In grade XII while the enrolment of the boys decreased, that of the girls increased in this period. Between the years 2018-19 and 2019-20, except for a few grades (for both boys and girls in grades X and XII and for only boys in grade VII), on the whole the enrolment of the students of grades VIII and XII has increased. It is another thing that this increase is of a minimal 1 percent. A nominal increase in enrolment in some of the grades and a decrease in most of the grades between the years 2017-18 and 2019-20 have been caused by the elimination of duplicate enrolment which was done because of the use of Aadhar.

Be it and increase or decrease in the enrolment, there has been an almost equal change in the percentage of enrolment both, among the boys and girls. The gender-parity-index has not only been high in all the grades, it has also improved over the years. There was perfect gender parity in classes VIII, IX and X in 2017-18, when their gender parity indices were almost equal to 1, but they made negligible improvement in the sub sequent two years i.e. 2018-19 and 2019-2020. The gender-parity-index for grade XI was 0.92 and for grade XII was 0.90 in the year 2017-18; it increased to 0.96 and 0.97 for these two grades in 2018-19 and remained the same in 2019-20.

**Table 11.5: Enrolment in Classes VIII- XII**

Grade	2017-18			2018-19			2019-20		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
VIII	320127	323220	643347	321656	323774	645430	319546	326736	646282
IX	267891	266661	534552	252856	254447	507303	258973	261707	520680
X	228899	228856	457755	230710	231202	461912	217777	227142	444919
XI	174894	161665	336559	156695	150623	307318	183650	177077	360727
XII	167386	150208	317594	161327	155789	317116	147441	142284	289725
Total	1159197	1130610	2289807	1123244	1115835	2239079	1127387	1134946	2262333

Source: The District Information System for Education (U-DISE) (Provisional data of 2019-20)

**Table 11.6: Growth rate in enrolment and gender-parity in Classes VIII-XII**

Grade	2018-19			2019-20			Gender Parity		
	Boys	Girls	Total	Boys	Girls	Total	2017-18	2018-19	2019-20
VIII	0.4	0.2	0.3	-0.6	0.9	0.2	1.01	1.01	1.02
IX	-5.9	-4.8	-5.4	2.4	2.8	2.6	1.00	1.01	1.01
X	0.8	1.0	0.9	-5.9	-1.8	-3.8	1.00	1.00	1.04
XI	-11.5	-7.3	-9.4	14.6	14.9	14.8	0.92	0.96	0.96
XII	-3.8	3.6	-0.2	-9.4	-9.5	-9.5	0.90	0.97	0.97
Total	-3.2	-1.3	-2.3	0.4	1.7	1.0	0.98	0.99	1.01

Source: The District Information System for Education (U-DISE), 2017-18, 2018-19 & 2019-20 (Provisional)

An improvement has been registered in the enrolment of students with special needs in the state. In the classes VIII to XII about 10 thousand students with special needs were enrolled in the year 2017-18. The enrolment of such students fell by about 7 per cent in the year 2018-19 but increased by 11.5 per cent in the year 2019-20.

On the whole the enrolment of the children with special needs increased by 3.7 per cent in these two years; from 10489 in 2017-18 to 10872 in 2019-20. There is no discrimination in the enrolment of girls with special need. Gender-parity-index in the enrolment of such students in most of the classes is above one.

**Table 11.7: Enrolment of Students with Special needs**

Grades	2017-18			2018-19			2019-20		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
VIII	3575	3346	6921	3046	2684	5730	3036	2848	5884
IX	687	819	1506	834	947	1781	982	1257	2239
X	597	793	1390	502	690	1192	741	1040	1781
XI	160	219	379	368	241	609	192	358	550
XII	113	180	293	202	237	439	165	253	418
VIII-XII	5132	5357	10489	4952	4799	9751	5116	5756	10872
IX-X	1284	1612	2896	1336	1637	2973	1723	2297	4020
XI-XII	273	399	672	570	478	1048	357	611	968

Source: The District Information System for Education (DISE), 2017-18, 2018-19 & 2019-20. (Provisional)

**Table 11.8: Growth in Enrolment and gender parity of Students with Special needs**

Grade	2018-19			2019-20			Gender Parity		
	Boys	Girls	Total	Boys	Girls	Total	2017-18	2018-19	2019-20
VIII	-14.8	-19.8	-17.2	-0.3	6.1	2.7	0.94	0.88	0.94
IX	21.4	15.6	18.3	17.7	32.7	25.7	1.19	1.14	1.28
X	-15.9	-13.0	-14.2	47.6	50.7	49.4	1.33	1.37	1.40
XI	130.0	10.0	60.7	-47.8	48.5	-9.7	1.37	0.65	1.86
XII	78.8	31.7	49.8	-18.3	6.8	-4.8	1.59	1.17	1.53
VIII-XII	-3.5	-10.4	-7.0	3.3	19.9	11.5	1.04	0.97	1.13
IX-X	4.0	1.6	2.7	29.0	40.3	35.2	1.26	1.23	1.33
XI-XII	108.8	19.8	56.0	-37.4	27.8	-7.6	1.46	0.84	1.71

Source: The District Information System for Education (DISE), 2018-19 & 2019-20. (Provisional)

**Gross Enrolment Ratio (GER) and NET Enrolment Ratio (NER)**

Gross and Net enrolment ratios (GER<sup>3</sup> and NER<sup>4</sup>) show the general level of participation in a given level of education. A 100 per cent NER at any level of education shows a universal participation of the corresponding population qualified as per the age-requirements of that

3 GER is the ratio of total enrolment, regardless of age, to the population of the age group that corresponds to the same level of education. GER can exceed 100 per cent due to the inclusion of over-aged and under-aged students, early or late school entrants, and grade repetition.

4 The NER is the total enrolment of the population of the age group that corresponds to the same level of education. Thus NER cannot exceed 100 percent.

educational level. GER is sometimes greater than 100 per cent as it also covers, in addition to the students of the appropriate age, over aged, under aged and repeaters in the corresponding enrolled population at the different educational levels.

In the year 2018-19, the GER for school-education in Jharkhand was more than 100 per cent at the primary, upper primary and elementary levels. In the year 2019-20, at the upper primary and elementary levels it fell a little below 100 per cent but for the primary level it remained above 100 per cent. At the secondary and higher secondary levels the GER is not only low but has decreased between 2018-19 and 2019-20.

The NER is not only less than 100 at all the levels of education but, except for the primary level, it has decreased at other levels of education between 2018-19 and 2019-20. Like the GER, the NER is high at the primary, upper primary and elementary levels but is abysmally low at the secondary and higher secondary levels. The NER at the primary and elementary levels is

a little above 90 per cent and at the upper primary level it is a little below 90 per cent both in the years 2018-19 and 2019-20, but at the secondary and higher secondary levels, it is even below 40 per cent in both these years.

There is no apparent gender-disparity at any level of education; neither in the GER nor in the NER.

**Table 11.9: GER and NER (All categories) at the different Educational Levels**

Educational Levels	2018-19						2019-20					
	GER			NER			GER			NER		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Primary	101.3	100.3	100.8	91.6	90.7	91.2	102.6	102.6	102.6	92.7	93.1	92.9
Upper Primary	99.6	112.1	105.5	85.5	95.4	90.2	80.9	85.3	83.1	67.8	71.3	69.5
Elementary	100.7	104.0	102.3	94.6	97.4	95.9	94.3	95.9	95.0	88.6	90.0	89.3
Secondary	67.7	76.3	71.8	46.6	52.4	49.3	58.7	62.8	60.7	38.4	40.7	39.6
Higher Secondary	51.5	56.6	53.9	26.2	28.9	27.5	40.5	41.1	40.8	23.2	24.0	23.6

Source: The District Information System for Education (DISE), 2018-19 & 2019-20. (Provisional)

Note: GER and NER of Elementary include Primary and Upper Primary.

### GER among the Scheduled Tribes (STs) and Scheduled Castes (SCs)

The SCs and STs, though educationally deprived at one point of time, are catching up rapidly with the rest of the communities. The GER of the SCs and the STs at all the levels of education is higher than the GER of the state, which includes all the communities of the state taken together. At the primary, upper primary and elementary levels, the GERs of both the SCs and STs were more than 100 per cent in the year 2018-19. However it reduced in 2019-20 at the upper primary, elementary and secondary level for the STs and at all levels (primary, upper primary,

elementary and secondary) for the SCs. Compared to the primary and the elementary levels GERs of both these communities are very low at the secondary and the higher secondary levels. The GER of the SCs is a little higher than that of the STs at all the levels of education. No systematic difference is visible between the enrolments of boys and girls in these two communities. This depicts that like the other communities, these two communities have also become aware of the importance of educating their children irrespective of their gender.

**Table 11.10: GER among the STs and the SCs at different Educational Levels**

Educational Levels	ST						SC					
	2018-19			2019-20			2018-19			2019-20		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Primary	107.1	106.2	106.7	109.0	109.1	109.2	114.8	112.9	113.9	110.6	111.2	110.9
Upper Primary	98.5	108.6	103.3	81.1	84.2	82.6	110.4	124.9	117.2	86.0	91.4	88.7
Elementary	104.3	107.0	105.6	98.4	99.5	99.0	113.4	116.4	114.9	101.5	104.1	102.6
Secondary	59.1	66.0	62.4	51.7	54.6	53.2	67.8	79.4	73.2	55.3	61.1	58.1
Higher Secondary	38.8	43.0	40.8	30.1	30.8	30.5	45.6	53.2	49.0	36.1	39.1	37.5

Source: The District Information System for Education (DISE), 2018-19 & 2019-20 (Provisional)

**Promotion, Drop-out and Repetition**

The success rate of students i.e. promotion of the students to a higher level were found to be higher among the primary, upper primary and elementary levels as compared to the secondary and higher secondary level. More than 90 per cent of the students at the primary and elementary levels were found to be promoted to a higher level in the year 2019-20.

The constant efforts of the government to promote the education of girls has led to an improvement not only

in their enrolment but also in their success-rate. The promotion-rate of the girls is slightly higher than that of the boys at all the levels of education. The girls seem to be more sincere than the boys; their drop-out rate is lower than that of the boys. The repetition-rate of the girls is also lower than that of the boys at the primary and the elementary levels. At all the other levels of education it is either the same for both the boys and the girls (at the primary level) or a little higher for the girls than for the boys.

**Table 11.11: Dropouts, Promotion and Repetition-Rates in Jharkhand in the year 2019-20**

	Primary			Upper Primary			Elementary			Secondary			Higher Secondary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Drop-out-rate	7.2	5.1	6.2	9.3	8.2	8.8	7.9	6.2	7.0	13.4	10.4	11.9	14.0	13.9	14.0
Repetition-rate	0.8	0.7	0.8	0.8	0.6	0.7	0.8	0.7	0.7	1.5	1.5	1.5	1.7	1.7	1.7
Promotion-rate	92.0	94.2	93.1	90.0	91.1	90.6	91.3	93.2	92.2	85.1	88.1	86.6	84.3	84.4	84.3

Source: The District Information System for Education (U-DISE), 2019-20 (Provisional)

An inter-temporal analysis of the drop-out and transition-rates does not show any clear-cut trend. At all the levels of education both the drop-out rates and the transition

rates have fluctuated over the years. The drop-out rate reduced drastically in the year 2017-18 because of the Aadhar-mapping with the enrolment.

**Table 11.12: Dropout-Rates**

	2015-16	2016-17	2017-18	2018-19	2019-20
Primary	5.38	15.71	-1.42	5.25	6.18
Upper Primary	8.99	19.61	-0.02	10.04	8.75
Elementary	6.59	16.95	-0.96	6.84	7.03
Secondary	9.21	22.39	1.52	13.16	11.93
Higher Secondary	19.51	34.93	-0.14	17.73	13.95

Note- Drop-out rate reduced in 2017-18 due to the Aadhar-mapping of enrolment.  
Source: The District Information System for Education (DISE), 2019-20. (Provisional)

**Table 11.13: Transition-Rates**

	2015-16	2016-17	2017-18	2018-19	2019-20
Primary to Upper Primary	84.22	76.28	94.78	85.91	86.25
Upper Primary to Secondary	79.79	69.39	89.75	76.99	79.37
Secondary to Higher Secondary	58.17	46.87	80.11	66.71	76.49

Source: The District Information System for Education (DISE), 2019-20. (Provisional)

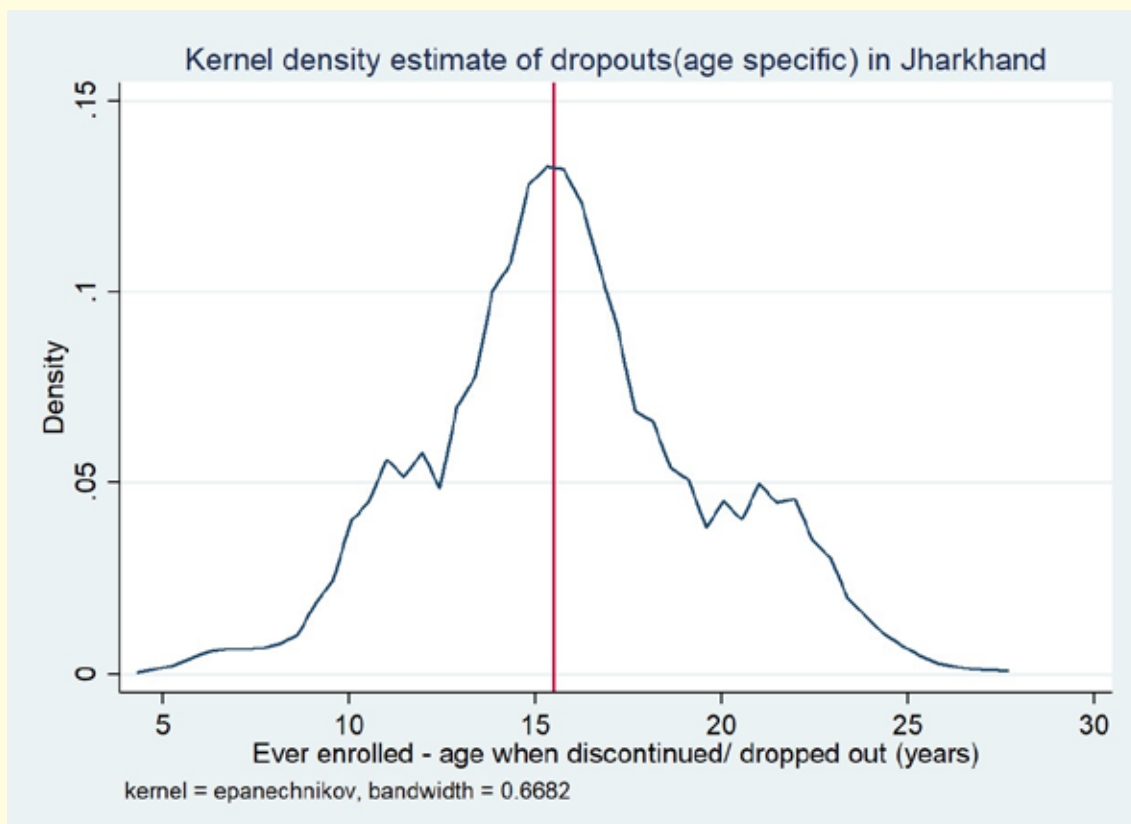
### Box Story 11.1: Who drops out?

Despite an increase in the child enrolment in school over the years, not many who start school seem to be completing its whole year. There are many factors which cause drop-outs. Some of them are child related issues, like poor health or malnutrition and lack of motivation while others emerge from their household situations like child labour and poverty. Factors like teacher absenteeism, school's location in remote areas and poor quality educational provisions also play a role in causing drop-outs. The system of educational provision at the community-level like social norms against girls, also generates conditions that may ultimately impact on the likelihood of children dropping out from schools. Therefore, both demand and provision-driven factors are embedded in cultural and contextual realities which make each circumstance different. Nevertheless, it is possible to create general points about the causes of drop-out.

The non parametric process i.e. 'Kernel Density Estimator (KDE)' which is calculated by weighing the distances of all the data points, has been used to measure the factors causing drop-outs of children from schools. The Epanechnikov kernel is optimal in a mean square error sense. From the figure below it can be inferred that the drop-out-rate is higher among students aged 16 years (mostly 15 to 18 age group) in Jharkhand.

There can be various reasons to explain this phenomenon. Firstly, there is not one single cause of drop out. Drop out is often a process rather than the result of one single event, and therefore has more than one proximate cause (Hunt, 2008). Secondly, poverty appears to influence the demand for schooling, not only because it affects the inability of households to pay the school fees and other costs associated with education but also because it is associated with a high opportunity cost of schooling for children. As children grow older, the opportunity-cost of education is even larger, hence increasing the pressure on children to work and earn income for the household as opposed to spending time in education.

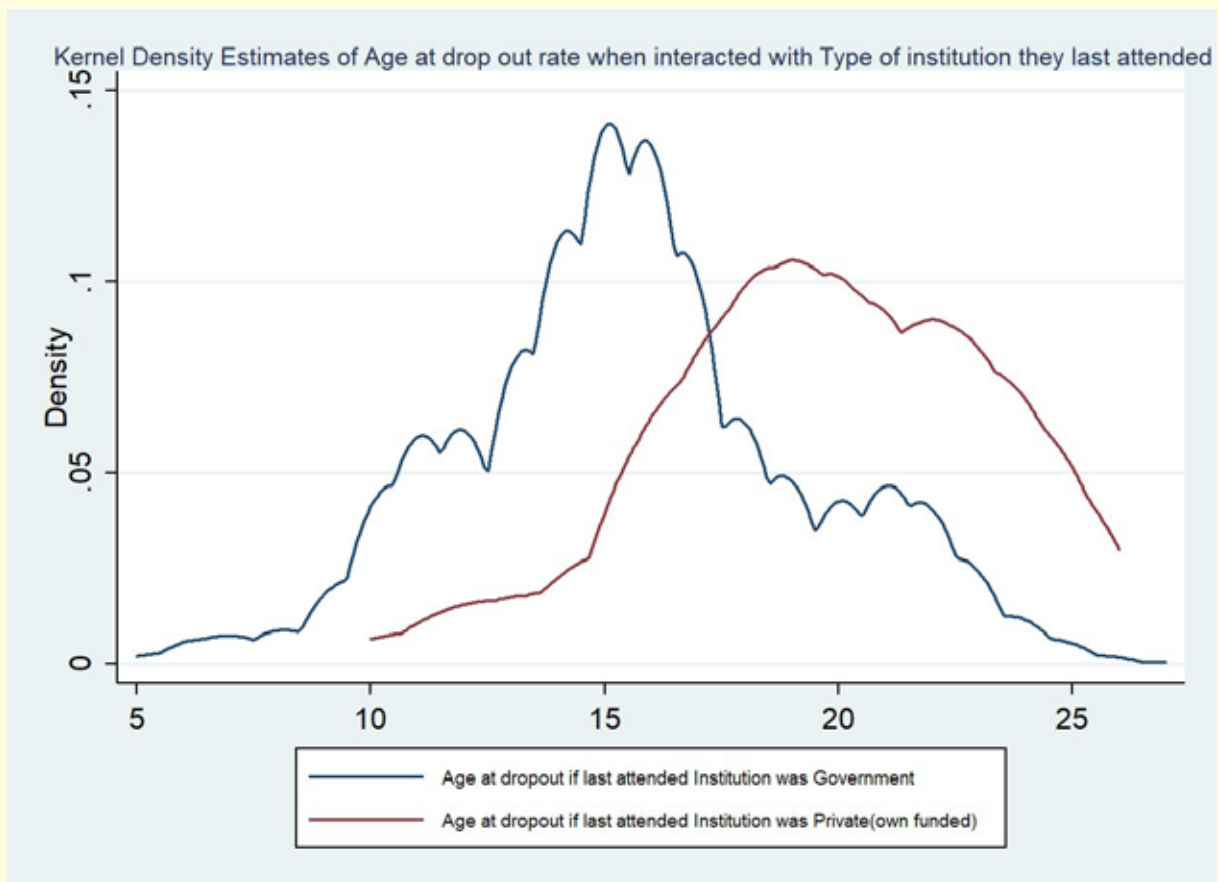
**Figure 11.3: Kernel density of dropouts in Jharkhand**





From the figure given below, it is evident that drop-outs occur at an early age among children enrolled in government institutions where as that among children enrolled in private institutions where they themselves pay the fees, it is neither high nor happens at an early age. Poverty also interacts with other points of social disadvantage. These interaction of factors put further pressure on vulnerable and marginalized children to drop out (Hunt, 2008:52). Poor people generally get enrolled in government institutions where the drop-out rate is high. Additional factors affecting motivations and decision-making relating to educational access are also key factors in the understanding of dropping out. Perceptions of how education will influence lifestyle and career possibilities/probabilities, and chances in the labour-market are shown to be factors for both early withdrawal and sustained access in different contexts. The availability of options to access secondary school and beyond, shape the decision-making of parents regarding the continuation of children ahead of the primary level. The perceived quality of education and the ability of children to make progress through the schooling system can also affect the priority placed on schooling within a household.

**Figure 11.4: Kernel density of dropouts in Jharkhand by type of Institution**



### Number of Schools

There were about 49 thousand schools in Jharkhand in 2017-18. Their number has reduced to about 45 thousand in 2019-20. This number, thus, has reduced at the rate of 3.8 per cent per annum. While the number of higher secondary schools have increased, the number

of primary, upper primary and secondary schools has decreased. They decreased at average annual rates of about 6 per cent, 2 per cent, 1 per cent and 4 per cent respectively.

**Table 11.14: Variation in the number of Schools over the years**

	Primary	Upper Primary	Secondary	Higher Secondary	Total
2017-18	27465	17105	3399	1273	49242
2018-19	24453	16529	3351	1575	45908
2019-20	24205	16446	3335	1613	45599

Source: Department of School Education, Government of Jharkhand

### Types of Schools

Most of the schools in the state are co-educational. The proportion of co-educational schools however, has decreased and the proportion of only girls' schools have increased with the increase in the level of education. While almost all the primary-level-schools are also co-educational, about 98 per cent of the upper-primary

schools, 90 per cent of the secondary schools and 78 per cent of the higher secondary schools are co-educational. On the other hand, while a mere 0.1 per cent of the primary schools are only girls' schools, such schools at the secondary and higher secondary level are 7 per cent and 20 percent respectively.

**Table 11.15: Types of Schools**

	Numbers				Proportions			
	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total
Primary	45	32	24128	24205	0.2	0.1	99.7	100.0
Upper Primary	134	145	16167	16446	0.8	0.9	98.3	100.0
Secondary	80	246	3009	3335	2.4	7.4	90.2	100.0
Higher Secondary	16	333	1264	1613	1.0	20.6	78.4	100.0
Total	275	756	44568	45599	0.6	1.7	97.7	100.0

Source: The District Information System for Education (DISE), 2019-20.

### Schools run by types of Management and Number of Students and Teachers

Most of the schools in the state are managed by the Department of Education (DoE). The schools managed by the DoE constitute about 78 per cent of those in the state. Most of the small-size schools are managed by the DoE while the larger sized schools are managed by other types of management. While only 37 per cent of the schools with more than 100 students are managed by the

DoE, more than 63 per cent of such schools are managed by other types of management. Similarly, while about 51 per cent of the DoE managed schools have students' strength between 20 and 80, only 25 per cent of the schools operated by other types of management have students' strength between 20 and 80.

**Table 11.16: Schools with the Number of students (2019-20) (Provisinal)**

	Number of Students per school											Total
	0	1 to 20	20 to 40	40 to 60	60 to 80	80 to 100	100 to 200	200 to 300	300 to 500	500 to 1000	1000 & above	
Department of Education (DoE)	92	1781	7115	6683	4256	2568	6754	2873	2143	982	194	35441

	Number of Students per school											Total
	0	1 to 20	20 to 40	40 to 60	60 to 80	80 to 100	100 to 200	200 to 300	300 to 500	500 to 1000	1000 & above	
Other types of management	96	361	808	970	777	721	2475	1300	1145	930	575	10158
All types of Management	188	2142	7923	7653	5033	3289	9229	4173	3288	1912	769	45599
Percentage of schools in DoE	0.3	5.0	20.1	18.9	12.0	7.2	19.1	8.1	6.0	2.8	0.5	100.0
Percentage of schools in other types of Management	0.9	3.6	8.0	9.5	7.6	7.1	24.4	12.8	11.3	9.2	5.7	100.0
Percentage of schools in all types of Management	0.4	4.7	17.4	16.8	11.0	7.2	20.2	9.2	7.2	4.2	1.7	100

Source: The District Information System for Education (DISE), 2019-20

### Strength of teachers in Schools

Most of the schools managed by the DoE have very few teachers. About 16 per cent of such schools have only one teacher and another 43 per cent have only two teachers. Only about 15 per cent of such schools have more than 5 (6 and above) teachers and about 4 per cent of such

schools have more than 10 teachers. On the other hand, about 70 per cent of the schools managed by other types of management have more than 5 teachers and about 32 per cent of such schools have more than 10 teachers.

**Table 11.17: Percentage of Schools by Number of teachers (2019-20) (Provisional)**

	Number of Teachers per school											Total
	1	2	3	4	5	6	7	8	9	10	>10	
DoE	16.3	42.9	11.8	5.8	8.5	4.0	2.6	1.9	1.4	1.0	3.8	100.0
Other types of Management	4.1	4.5	5.0	9.8	6.5	8.7	7.6	8.1	7.3	6.6	31.8	100.0
All types of Management	13.6	34.4	10.3	6.7	8.0	5.0	3.7	3.2	2.7	2.2	10.0	100.0

Source: The District Information System for Education (DISE), 2019-20

The participation of the government is high at the lower levels of education while that of the private parties is more at the higher levels of education. Of all the schools managed by the DoE, about 60 per cent are primary schools and 33 per cent are upper primary schools. Only

about 5 per cent of them are secondary schools and about 2 per cent are higher secondary schools. On the other hand, of all the private unaided schools, about 52 per cent are secondary schools and about 36 per cent are higher secondary schools.

**Table 11.18: Schools by Types of Management**

Management	Primary	Upper Primary	Secondary	Higher Secondary	Total
DoE	59.8	32.6	5.1	2.4	100.0
Tribal Welfare Department	32.2	29.2	31.6	7.0	100.0
Government aided	42.5	41.9	12.3	3.3	100.0

Management	Primary	Upper Primary	Secondary	Higher Secondary	Total
Pvt. Unaided (Recognized)	1.3	11.1	51.9	35.7	100.0
Other Govt. Managed Schools	0.0	0.0	0.0	100.0	100.0
Unrecognized	32.7	59.4	7.4	0.5	100.0
NCLP	99.4	0.6	0.0	0.0	100.0
Social Welfare Dept.	0.0	80.0	0.0	20.0	100.0
Central School	2.2	13.0	15.2	69.6	100.0
Jawahar Navodaya Vidhyalaya	0.0	3.8	11.5	84.6	100.0
Sainik School	0.0	0.0	0.0	100.0	100.0
Railway School	0.0	14.3	28.6	57.1	100.0
Madarsa Recognized (by Wakf board/ Madarsa Board)	9.5	71.4	19.0	0.0	100.0
Madarsa Unrecognized	29.6	63.7	5.9	0.7	100.0
Total	53.1	36.1	7.3	3.5	100.0

Source: Department of School Education, Government of Jharkhand

The supremacy of the DoE managed schools at the primary level is evident from the table given below. While about 87 per cent of the primary schools and 70 per cent of the upper primary schools are managed by the DoE, only 55 per cent of the secondary and 53 per

cent of the higher secondary schools are managed by it. About 23 per cent of the secondary schools and 33 per cent of the higher secondary schools are private unaided recognised schools.

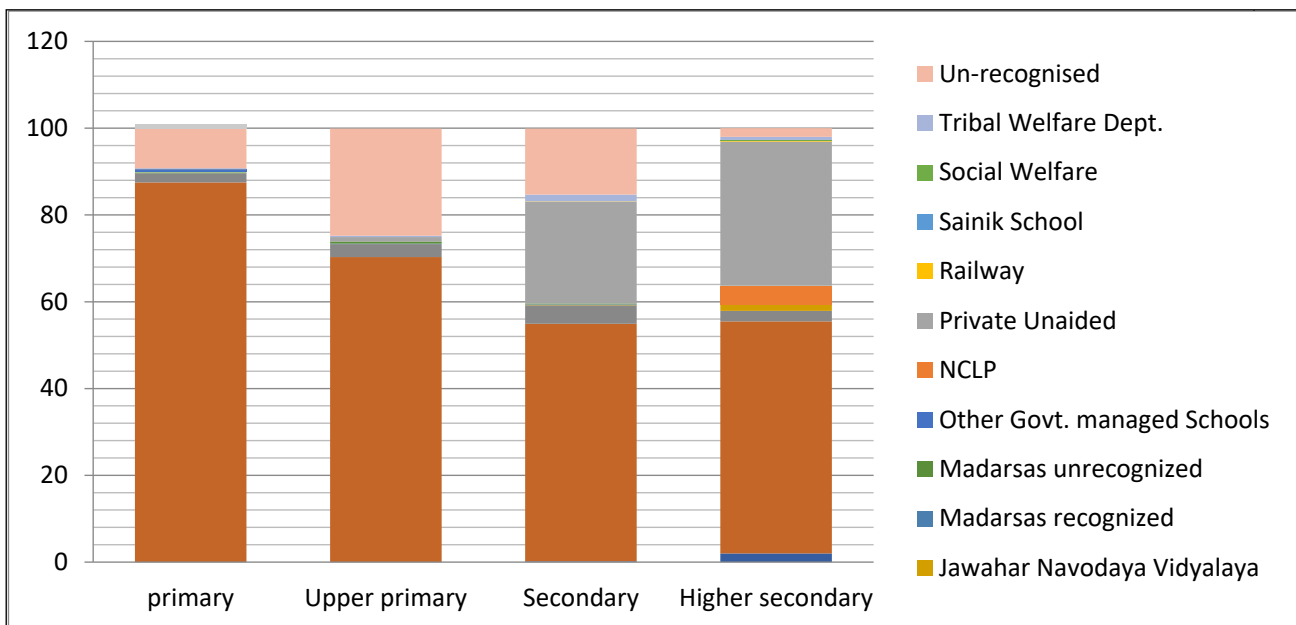
**Table 11.19: Schools by Types of Management**

Management	Primary				Upper Primary				Secondary				Higher Secondary				Total			
	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total
Department of Education	8.9	25.0	87.8	87.5	18.7	33.1	71.1	70.3	18.8	46.3	56.4	54.7	31.3	82.6	46.1	53.5	17.8	58.9	78.4	77.7
Tribal Welfare Department	31.1	28.1	0.1	0.2	27.6	7.6	0.0	0.3	45.0	6.5	0.1	1.6	25.0	2.4	0.0	0.7	33.1	5.8	0.1	0.4
Government Aided	17.8	21.9	2.0	2.1	35.8	42.1	2.4	3.0	21.3	17.5	2.8	4.3	12.5	1.5	2.5	2.4	27.3	15.3	2.2	2.6
Pvt. Unaided (Recognized)	0.0	0.0	0.1	0.1	1.5	0.7	1.0	1.0	8.8	26.0	23.6	23.4	12.5	9.6	39.7	33.2	4.0	12.8	3.1	3.3
Other Govt. Managed Schools	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	3.0	4.6	4.3	0.4	1.3	0.1	0.2
Unrecognized	4.4	15.6	9.2	9.2	7.5	13.8	24.9	24.7	3.8	2.8	16.6	15.2	0.0	0.9	2.4	2.0	5.5	4.6	15.2	15.0
NCLP	0.0	9.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4
Social Welfare Dept.	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.7	0.0	0.0	0.0
Central School	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	2.5	2.0	0.0	0.0	0.1	0.1
Jawahar Navodaya Vidhyalaya	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1.7	1.4	0.0	0.0	0.1	0.1
Sainik School	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Railway School	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.1	0.0	0.0	0.3	0.2	0.4	0.0	0.0	0.0

Management	Primary				Upper Primary				Secondary				Higher Secondary				Total			
	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total	Boys	Girls	Co-Ed	Total
Madarsa Recognized (by Wakf board/Madarsa Board)	0.0	0.0	0.0	0.0	1.5	0.0	0.1	0.1	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.7	0.1	0.0	0.0
Madarsa Unrecognized	37.8	0.0	0.1	0.2	6.7	2.8	0.5	0.5	1.3	0.4	0.2	0.2	6.3	0.0	0.0	0.1	10.2	0.7	0.2	0.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Department of School Education, Government of Jharkhand

Figure 11.5: Distribution of schools by type of management



Source: The District Information System for Education (DISE), 2019-20. (Provisional)

### School-Mergers in Jharkhand

In July 2017, the Ministry of Human Resource Development issued a set of guidelines on the “rationalization of small schools across the States for better efficiency”. In the last four scholastic years, that is, in 2016-17, 2017-18, 2018-19 and 2019-20 many sub-scale schools have been merged with nearby schools. The processes of reorganization of schools involved detailed field-inspections and consultations at the block and district levels with multiple stakeholders including parents, teachers, local authorities, children and communities. In the process of reorganisation of schools, care has been taken to ensure access of every child to

a fully functional school in terms of the availability of teachers, infrastructure and other resources as mandated under the RTE act.

### The Outcome of Reorganisation of Schools

As a result of the reorganisation of schools, the number of schools has decreased by 11.53 per cent between 2016-17 and 2019-20. The number of primary schools (class I to V) has decreased by 15.19 per cent and the middle schools (class I to VIII & VI to VIII) by 7.44 per cent in this period. The number of secondary schools have remained almost the same while the number of higher secondary schools has increased.

**Table 11.20: Number of Schools before and after Mergers**

	Primary Schools	Middle Schools	Secondary Schools	Higher Secondary Schools	Total
Before Merger (2016-17)	24406	12426	1834	860	39526
After Merger (2019-20)	21188	11565	1825	863	35441
Per cent Change	15.19	7.44	0.49	-0.35	11.53

Source: The District Information System for Education (DISE), 2017-18

### School Facilities

**Condition of School:** Most of the schools of Jharkhand are in a good condition. In the academic year 2019-20, about 92 per cent of the classrooms in the secondary schools and about 97 per cent of the classrooms in the higher secondary schools of Jharkhand were found to

be in a good condition. Only about 4 per cent of the classrooms in the secondary schools and 1 per cent of the classrooms in the higher secondary schools required any major repair.

**Table 11.21: Conditions of Schools in Jharkhand**

Per cent Class by Condition	Secondary Schools	Higher Secondary Schools
Good	92.21	96.56
Major Repair	3.70	1.33
Minor Repair	4.09	2.11

Source: U-DISE School Education India 2019-20 (Provisional)

**Number of Students per Classroom:** Though there is no clear or rigid trend, the number of students per classroom is not only low in Jharkhand but has also decreased over the years at most of the levels of school-education. Only at the higher secondary level, the number of students per class room is not only high

but has increased over the years. The trend of changes in the student-classroom ratio remains the same even when the under-construction-classrooms are taken into consideration. The student class room ratio is the highest at the higher secondary level and lowest at the primary level.

**Table 11.22: Student Classroom Ratio**

	Primary	Upper Primary	Elementary	Secondary	Higher Secondary
<b>Including the Under-Construction-Classrooms</b>					
2013-14	18.2	26.1	22.5	40.1	32.6
2014-15	17.2	25.2	21.5	40.5	50.4
2015-16	16.7	24.6	20.9	38.8	53.6
2016-17	15.4	22.4	19.2	32.8	41.6
2017-18	14.6	21.9	18.6	35.2	57.0
2018-19	15.0	22.3	19.0	34.7	53.2
2019-20	14.3	21.7	18.4	33.9	50.3
<b>Excluding the Under-Construction-Classrooms</b>					
2013-14	21.7	30.3	26.4	47.2	37.7

	Primary	Upper Primary	Elementary	Secondary	Higher Secondary
2014-15	19.8	27.9	24.2	45.6	55.4
2015-16	18.8	26.8	23.2	43.7	58.7
2016-17	17.2	24.4	21.2	36.7	46.0
2017-18	16.0	23.4	20.1	38.6	62.6
2018-19	16.3	23.6	20.3	37.9	58.5
2019-20	15.4	22.7	19.5	36.2	54.4

Source: The District Information System for Education (DISE), 2019-20

Most of the DoE managed schools are well equipped with facilities like drinking water, toilets, libraries and electricity-connections. In the year 2017-18 about 96 per cent of such schools had drinking-water-facility, 95.8 per cent had functional toilets for boys, 97.2 per cent had separate functional toilets for girls, about 95 per cent had libraries and about 42 per cent had electricity-connections. In the last two years, except for the functional toilets of the boys, all other facilities have improved. The drinking water facility has improved by 2.2 per cent, separate girls' toilets have increased by 0.4 per cent, libraries by 0.3 per cent and electricity-connections by 114.4 per cent. Thus, in 2019-20, about 98 per cent of such schools have drinking-water-facility, 95 per cent have functional toilets for boys, 97.6 per cent

have separate functional toilets for girls, about 95 per cent have libraries and about 91 per cent have electricity-connections.

Similarly, the percentage of schools having playgrounds, boundary walls and ramps has increased and that of zero class rooms has decreased in the last two years. The percentage of schools having playgrounds, boundary walls and ramps has increased by 2.6 per cent, 7.7 per cent and 8.36 per cent respectively and that of zero class rooms has decreased by about 57 per cent in the last two years. Now, in the year 2019-20, about 58 per cent of the schools have playgrounds, about 37 per cent have boundary walls and 64 per cent have ramps. Only 0.23 per cent of the schools do not have any class rooms.

**Table 11.23: Availability of Basic Facilities in the Government (DOE) Schools**

	Drinking water	Functional Boys' Toilets	Functional Girls' Toilets	Libraries	Electricity
2017-18	96.3	95.8	97.2	95.0	42.5
2018-19	97.3	94.7	96.6	95.1	72.9
2019-20	98.4	95.4	97.6	95.3	91.1

Source: The District Information System for Education (DISE), 2019-20 (Provisional)

**Table 11.24: Availability of Other facilities in Private and Government (DOE) Schools**

Year	Playground	Boundary Wall	Zero Class rooms	Ramps Available
2017-18	56.69	34.71	0.54	59.12
2018-19	58.20	36.48	0.42	62.24
2019-20	58.17	37.40	0.23	64.22

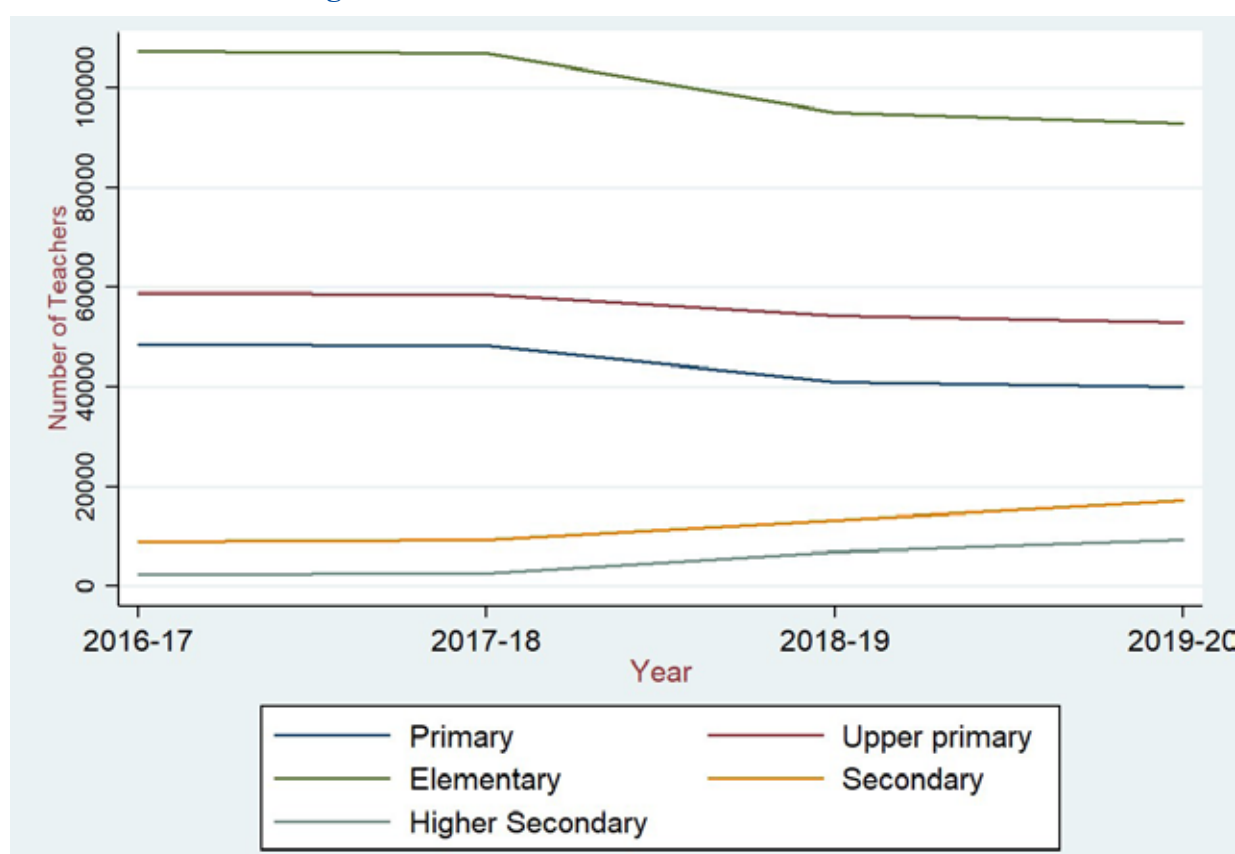
Source: The District Information System for Education (DISE), 2019-20

### The Teachers

The number of teachers in 2016-17 was 118557 which increased by only 0.6 per cent to 119238 in 2019-20. The number of teachers in the primary schools has decreased by about 21 per cent and that of in the upper primary schools by about 11 per cent and in the elementary schools by 15 per cent in the last three years between 2016-17 and 2019-20. The number of teachers in the secondary and higher secondary schools has increased by 47.8 and 75 per cent respectively in this period. This increase in the number of teachers in the secondary and

higher secondary schools, however, has very little effect on the total number of teachers in the state because they constitute about 14 and 8 per cent of the total number of teachers in the DoE managed schools. The teachers in the secondary and higher secondary schools constituted only 7.5 and 1.9 per cent of the total number of teachers of such schools in 2016-17 but because of the increase in their numbers, their proportion in the total number of teachers of DoE managed-schools kept on increasing.

**Figure 11.6: Number of Teachers over the Years**



**Table 11.25: Number of Teachers over the Years (DoE)**

Year	Primary	Upper primary	Elementary	Secondary	Higher Secondary	Total
2016-17	48494	58827	107321	8931	2305	118557
2017-18	48409	58681	107090	9169	2439	118698
2018-19	40996	54220	95216	13312	6811	115339
2019-20	40040	52855	92895	17117	9226	119238

*Note: Elementary teachers include primary and upper primary teachers*

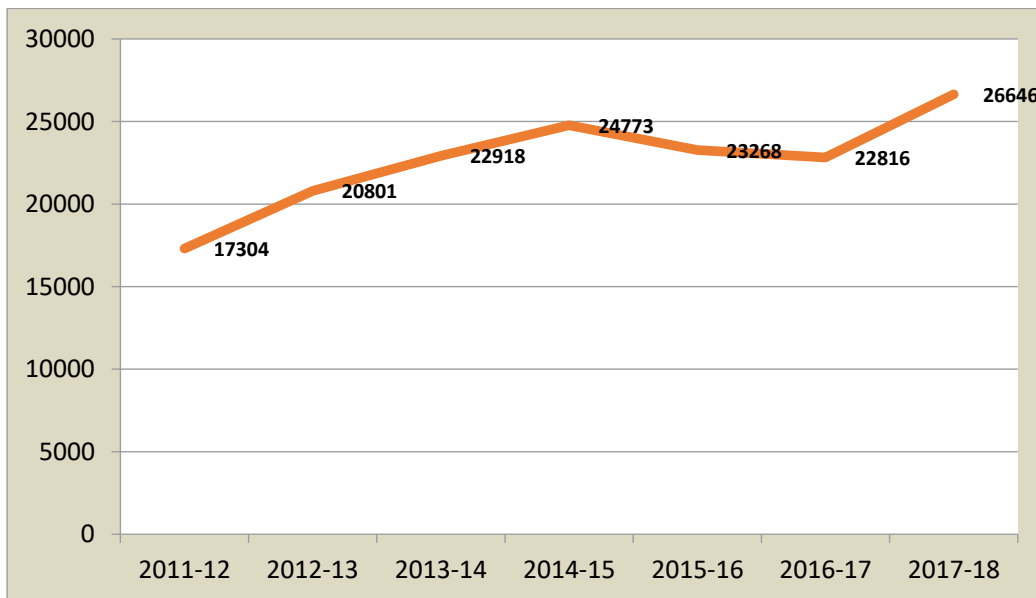


### Contractual Teachers

Given the fiscal situation of most state governments and the rapid expansion of the schooling system under the centrally sponsored government schemes like the Sarva Shiksha Abhiyan (2001 onwards) and the Rashtriya Madhyamik Shiksha Abhiyan (2009 onwards), it was realised that engaging contractual teachers was better

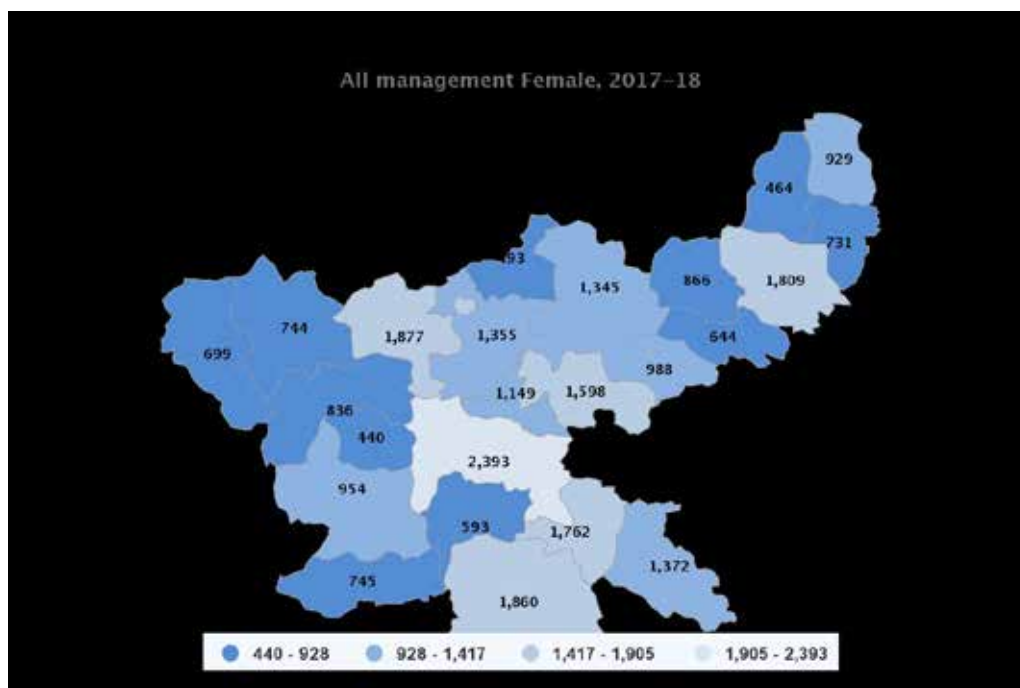
than not having any teacher at all. As a result, state governments opted for contractual teachers so that they could avoid facing long-term fiscal liabilities. In such circumstances, it was felt that hiring contractual teachers was a financially-prudent decision.

**Figure 11.7: The Number of Contractual Female Teachers has increased by 54 per cent from 17304 in 2011-12 to 26646 in 2017-18.**



Map 1 show that most of the contractual teachers are posted in Ranchi, Chatra, Bokaro, Pashchimi Singhbhum and Dumka. Lohardaga, Kodarma, Godda and Garhwa are the districts where the least number of contractual teachers are posted.

**Map 11.1: Number of Contractual teachers**



**Pupil-Teacher-Ratio:**

Under the Right to Education act, the pupil-teacher ratios (PTR) for the primary classes and the upper primary classes are 30:1 and 35:1 respectively. The student-teacher ratio has been found to be probably the most grounded pointer of achievement and commitment towards RTE. In Jharkhand the pupil-teacher ratio has improved over the years. The overall the PTR was 46.1 in 2014-15 which decreased to 40.67 in 2016-17. It further decreased to 37.8 in 2019-20. Pupil Teacher Ratio is the highest in the higher secondary and secondary classes. The PTR in the primary classes was 34.1 in 2013-14 and

it decreased to 28.6 in 2019-20. In the upper primary classes this ratio decreased from 47.8 to 39.6 and in elementary classes from 41.6 to 34.9 in this period. The pupil teacher ratio has also improved at the secondary classes. It was 74.3 in 2013-14 which improved to 43.3 in 2019-20.

A smaller number of students per teacher are essential for improvement in the quality of education. With less number of students, it becomes easier for the teachers to pay attention towards the learning requirements of each child.

**Table 11.26: Pupil-Teacher-Ratio**

Years	Primary	Upper Primary	Elementary	Secondary	Higher Secondary	Overall
2013-14	34.1	47.8	41.6	74.3	50.8	44.1
2014-15	33.1	47.9	41.1	81.9	79.0	46.1
2015-16	31.7	43.8	38.4	69.9	86.1	43.0
2016-17	30.1	41.2	36.3	62.5	76.7	40.6
2017-18	29.1	41.5	36.0	66.4	87.3	41.3
2018-19	29.6	40.6	35.8	57.3	73.7	40.6
2019-20	28.6	39.6	34.9	43.3	56.4	37.8

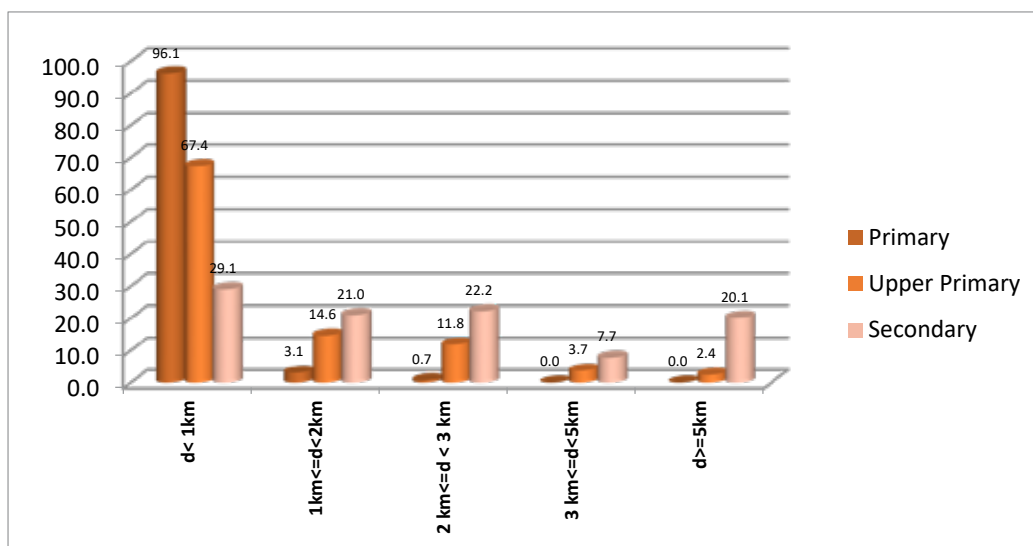
Source: The District Information System for Education (DISE), 2018-19

**Distance of School**

Most of the primary schools in Jharkhand are situated at a distance of less than 1 km from households. The schools at the secondary level on an average are quite far away from households when compared to those at the primary and secondary levels. About 96 per cent of the primary schools, 67 per cent of the upper primary schools and 29 per cent of the secondary schools are located within a distance of 2 to 3 kms of the households in the state.

located at a distance within 1 km from households in the state. About 21 per cent of the secondary schools and 15 per cent of the upper primary schools are located at a distance of 1 to 2 kms. Approximately 22 per cent of the secondary schools are located within a distance of 2 to 3 kms of the households in the state.

**Figure 11.8: Distance of the Households to the nearest School having Primary, Upper Primary/ Middle and Secondary Level Classes:**



**Box Story 11.2: Distance as hindrance**

An increase in distance proves to be a hindrance for many in accessing education. Distance increases the cost of education which includes direct financial costs (e.g., transportation cost, renting an apartment/ space to stay, purchasing furniture or other items for the apartment, etc.), as well as indirect financial costs (e.g., foregone economies of scale related to division of the family). There may be emotional costs also related to leaving home. Some parents are also reluctant to send their children to distant educational institutions/colleges/schools because of the safety concerns.

Identifying the magnitude of these geographical barriers, their role in shaping educational participation and identifying those who are most plagued by these barriers can provide useful information for providing need-based financial and logistic assistance programmes for students. These may also be linked to the low-attendance-ratio.

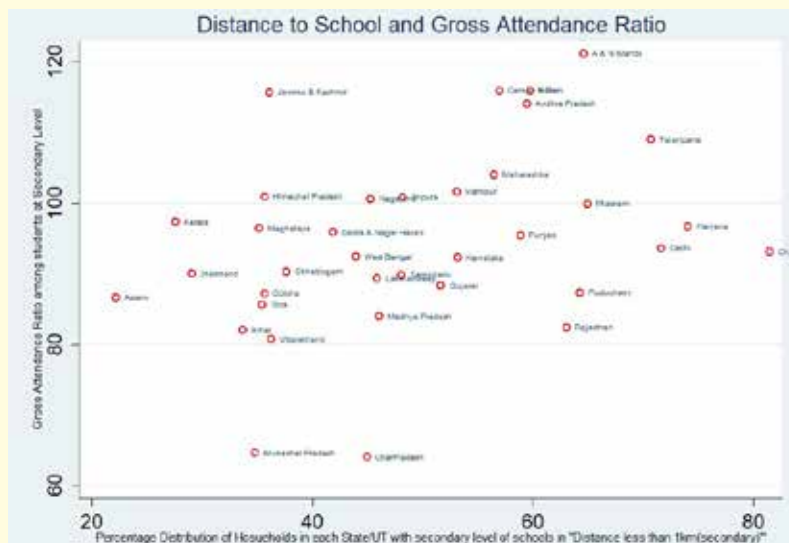
Studying the role of distance in school-education is appealing from an analytical point of view compared to other cost-related barriers. Some recent work by Frenette (2005) suggests that distance to school plays an important role in university-participation. We draw evidence from the 75th round of National Sample Survey (NSS) on Social Consumption (Education) about the proportion of households with secondary level schools situated at a distance of less than 1 km and the Gross Attendance Ratio state wise. It is evident from the figure given below that states which have a higher percentage of households living in close proximity (distance  $\leq$  1KM) to the secondary schools have an increased Gross Attendance Ratio (GAR).

The secondary schools, on an average, are quite far from households when compared to the primary and the secondary levels. 29.1 per cent of the secondary schools are situated at a distance of 1 km from households in Jharkhand. The Gross Attendance Ratio among students at the secondary level in Jharkhand is 90. Maharashtra, which has about 58 per cent of the secondary schools at a distance of 1 km, has a Gross Attendance Ratio of 104. In Telangana about 70 per cent of the secondary schools are located at a distance of less than 1 km and has a very high Gross Attendance Ratio of 109.

Though in Uttar Pradesh about 45 per cent of the secondary schools are located at a distance of up to 1 km, it has a Gross Attendance Ratio of 64. Similarly Bihar, where about 35 per cent of secondary schools are located at a distance of 1 km, has a Gross Attendance Ratio of 82.

So distance, except for a few exceptions like Bihar and Uttar Pradesh, is a hindrance to school-education. In most of the states like Maharashtra, Telangana, Andhra Pradesh or in Union Territories like Delhi, Chandigarh or Andaman and Nicobar Islands, it seems to influence the Gross Attendance Ratio.

**Figure 11.9: Distance and GAR in Jharkhand**



### Quality of Education

The National Achievement Survey of 2017 found an impressive improvement in the learning-outcomes of the students of classes 3, 5 and 8 in all the subjects in which tests were conducted. Except for Mathematics in class VIII, the students of all the classes have improved their performance in all subjects in the year 2017, in

comparison to their learning-level in the year 2015. The improvement in their average performance varies between 46 per cent and 6 per cent. The performance of the students was usually found to be better in Languages than in Mathematics.

**Table 11.27: Average Performance of the Students in NAS in 2015 and 2017.**

Class	Subject	2015	2017	Percentage of improvement
III	Languages	48	70.05	45.9
III	Mathematics	50	66.00	32.0
V	Languages	46	61.29	33.2
V	Mathematics	47	56.47	20.1
V	Environmental Studies	47	64.36	36.9
VIII	Languages	48	61.00	27.1
VIII	Mathematics	52	51.05	-1.8
VIII	Science	50	53.00	6.0
VIII	Social Sciences	51	54.00	5.9

Source: NCERT.

### Government's Initiatives to Improve the Enrolment, Retention and Quality of School Education in Jharkhand

In order to reduce the drop-out rates in schools, a blueprint for 'zero dropout panchayats' in Jharkhand was laid in the year 2016-17. Till now 1828 panchayats of the state have been declared 'zero-drop-out-panchayats' which means that the rate of school-dropouts from these panchayats have become nil. A third-party social audit was done to check the success of the scheme which revealed that a total of 16699 schools in the state are 'zero-drop-out-schools' as of now.

Kasturba Gandhi Balika Vidyalaya is a good initiative to reduce the gender-disparity in the schools. It provides quality-education through the residential mode for the 'difficult-to-reach' girl child. At present the Kasturba Gandhi Balika Vidyalaya is being run in 203 educationally backward blocks of the state where

classes from Std. VI to Std. XII are held. Classes of all the three major streams viz. Arts, Commerce and Science have been specially arranged for students here. Approximately eighty thousand girl students are currently studying in these schools where they are being educated free of cost. Amongst the fifty-seven blocks where the Kasturba Gandhi Balika Vidyalaya is not in existence, the state government is running residential schools which have been established on lines similar to that of the Kasturba Vidyalayas. Approximately seven thousand girls are studying in these schools. All these schools have been equipped with gym and wi-fi. An "ICT @ school Programme", has also been started in these schools under which smart classes and computer education are being provided to students. In order to accelerate the learning levels of students and to equip them with the knowledge of information technology, the girls of these schools have been provided with tablets.

**Model School:** the state government has setup 89 Model English Medium Schools in block headquarters. These are co-educational schools and are running from class VI to XII. Admission in class VI is based on the admission test conducted by the Jharkhand Academic Council. There are 40 seats for admission in class VI which are sanctioned in each model school. Now the Department of SE&L has proposed to convert it into residential schools at the division/district levels.

**Samarth Awasiye Vidyalaya:** A total of twenty Samarth Awasiye Vidyalayas of special category have been set up in the different districts of Jharkhand. In eighteen out of these twenty schools, education from classes I to VIII is being provided to the children affected by naxal activities, those with single-parent and orphans. These schools have a strength of 100 each. Apart from it, one residential school each, has been established in the two districts of Jharkhand viz. Ranchi and West Singhbhum for the girl children who have been victims of trafficking. Education uptill class eighth is being given to the girls of these two schools also.

In order to promote ICT (Information Communication Technology) and computer based education, the ICT School Programme is being successfully executed in 465 secondary and higher secondary schools. In 240 government elementary schools, arrangements have been made for 'Computer Aided Learning (CAL). The process of coverage of the ICT School Programme is under process in the 202 newly constructed secondary schools and 308 higher secondary schools.

To initiate quality-education at the school level, a meaningful initiative has been taken up by the state government. In order to assess the learning levels of the students, the Jharkhand Academic Council organises Board examinations for the students of class eight. The idea is to assess the academic potential of the eighth grade students in the government-run schools of the state. The objective behind this exercise is not only to assess the actual learning-levels of students but also to make arrangements for their remedial education.

Many effective steps have been taken up by the government to improve the work culture of the Jharkhand Academic Council. For the first time OMR based examinations were conducted in February 2019 for classes VIII, IX and XI. In order to get rid of duplicate and fake certificates, mark-sheets and original certificates of students who have matriculated between the years 2008 to 2017 were stored in digital lockers.

This is being considered as one of the significant initiatives taken by the government for student-welfare. For the first time, all the students of Std. IX and Std. XI for the session 2018-19 were registered online for the purpose of examination. The payment of examination-fees was made cashless. Steps are also being taken for the arrangements of online-registration of students where online-registration-receipts can be made easily available to them.

In order to ensure free and fair examinations, all matriculation and intermediate board examinations in the year 2018 were conducted under the vigilance of the CCTV cameras. This practice shall continue in the years ahead. Initiatives have already been taken to completely digitalize the working mechanism of the Jharkhand Academic Council. A state-level competitive examination viz. Akansha – 2018-20 was also organized. Arrangements have been made for receiving online applications for the affiliations of schools and universities of the state. In addition to it, the database of teachers employed in the government-schools of the state is also being made available online.

A scheme named 'E-Vidyavahini' has been initiated under the aegis of 'gyanoday' Scheme with an initial budget of one hundred and twenty crore rupees. This scheme is being implemented and controlled by the Jharkhand Academic Council in collaboration with the JAP-IT and the NIC. Inaugurated by the then Chief Minister of the state on September 14, 2018, all officials of the state education department come under it. The entire scheme is being run by the cooperation of DEO/DSE/BEEO, BRC/CRC and SMC. The updated and verified data of twenty-one thousand schools is available online through it. A live daily update of relevant data can be tracked by any district official at the Deputy Commissioner's office or at the state headquarters.

**SATHE-E:** With an objective to convert Jharkhand into a model state for education and also to build academic competitiveness, the NITI Aayog selected Jharkhand for its Sath-E project in 2017-18. This programme is being implemented in the aspirational districts of the state under the tripartite agreement between Niti Ayog, Government of Jharkhand and BCG. A survey conducted by the NCERT, Tata Trust, Gates Foundation and the NITI Aayog in 2018 revealed that there has been a continuous improvement in the quality of education provided in these districts. The Niti Ayog has also appreciated Jharkhand for this in the national steering group (NSG).

**Gyan Setu:** To enhance the academic achievements of the students studying in classes one to nine, a programme named 'Gyan Setu' is being implemented in all the districts of the state. Under this programme, around one lakh teachers and two thousand block resource persons (BRC) and Circle Resource Persons have been trained and five types of guidelines containing instructions have been published to suit the needs of the information-seekers of the programme. This programme is being implemented under the supervision of the deputy commissioners with an active participation of Jharkhand Education Project Council (JPEC), JCERT, and BCG.

In order to help meritorious students to prepare for the medical and engineering entrance tests, a programme named 'Akansha' was started in the year 2016-17 by the school education and literacy department of the government. Under the given programme students are provided free boarding facilities, competent teachers for guidance, books and other study materials. Students are selected for the programme through an entrance test. Encouraging results have been obtained through the Akansha programme.

The Sakshar Bharat Programme was started in the state with the objective to achieve eighty per cent literacy in the state. The other objective was to reduce the gender disparity in literacy to a minimum of ten per cent.

In order to check the dropout rates of girl students from the schools, all the girl students who have passed class five belonging to the SC and the ST communities are given an amount of Rs.2000 in the form of term-deposits on their enrolment to higher classes. Around sixty-eight thousand girl-students are benefited under this scheme.

Under the School Kit Scheme, the state government is making available a school kit containing a school bag, note-books, writing material and a pair of socks and shoes to all the school going students of classes one to eight.

In order to encourage female education at the secondary and higher secondary levels, all girl-students studying in the government schools of the state (from Classes IX to XII), irrespective of the category to which they belong, are being provided with uniforms, course books and copies. This has been implemented from the financial year 2015-16.

Free and compulsory education under the Right to Education Act, 2009 is being duly complied with in the state. This Act has been adopted by the government of

Jharkhand after a notification no. 10/2010/1291 dated May 11, 2011 was issued by the Governor of Jharkhand. It has been specified in Chapter IV, clause (c), sub-clauses (iii) and (iv) of clause (n) of Section 2 that a school shall admit in Class I, to the extent of at least twenty-five per cent, of the strength of that class, children belonging to the weaker sections and the disadvantaged groups in the neighbourhood and provide free and compulsory elementary education till the completion of their education.

To enforce the Right to Education Act, 2009 various measures have been taken up by the state government. According to the departmental resolution no. 629 dated 25-04-2019, a district-level-committee under the chairmanship of the deputy commissioner has been formed for the purpose of giving recognition to the private schools of the state.

The NCERT notified subject-wise learning outcomes for Classes I to VIII has been adopted by the state. A 'no-detention policy' till class VIII has been adopted by the state. As per the notification circulated vide letter no. 726 dated 14-05-2019, there shall be regular examinations at the end of every academic year. If a child fails he will not be promoted to the next higher class but will be given an opportunity for re-examination within a period of two months from the date of the declaration of the result.

For the convenience of the students with the background of tribal and regional languages, course books have been designed and published in five tribal languages viz. Mundari, Ho, Santhali, Kharia and Kudugh and two regional languages viz. Odissi and Bengali. This has been done to apprise the students with their mother tongue before they join the mainstream medium of instruction.

To inculcate the habit of reading students, a monthly magazine named 'Pankh' is published. Ten copies of this magazine are given in each of the schools on a monthly basis. This magazine has been widely appreciated by the students. This magazine is being published at the central level since February, 2017.

A number of vocational programmes, targeting wholesome education among the school students, are being run under the aegis of the Jharkhand Education Project Council (JPEC). In the financial year 2015-16, vocational courses were started in five trends from Class IX onwards in 53 schools. In the subsequent year, it was introduced in two more trends in 107 schools. In the financial year 2018-19, 55 more schools were incorporated into it.

Annual examinations are being conducted by the Jharkhand Academic Council, Ranchi for the students enrolled in the vocational courses. Written examinations of these programmes are evaluated by the Jharkhand Academic Council, Ranchi, whereas the practical exams are conducted by the Skill Council, a related unit of the NSDC, New Delhi. 19892 students have been enrolled in 7 vocational courses.

Jharkhand had an outstanding performance in the ‘Clean School Competition’ in the year 2017-18. A total of 52 schools were awarded at the national level among which three schools were from Jharkhand. Jharkhand stood

‘third’ amongst all the states and fourth amongst the states and the Union Territories. Amongst the eastern and the north-eastern states, Jharkhand stood at the first position.

### Higher Education in Jharkhand

According to the All India Survey on Higher Education (AISHE) 2018-19, Jharkhand has 25 universities constituting about 2.5 per cent of the universities of the country. Ten of these universities are state public universities and 9 of them are state private universities. Jharkhand has neither any open university nor any dual mode university.

**Table 11.28: Distribution of Universities in Jharkhand (2018-19)**

Types of Universities	Jharkhand	All India	Proportion
Central University	1	46	2.17
Central Open University	0	1	0.00
Institute of National Importance	4	127	3.15
State Public University	10	371	2.70
Institute under State Legislature’s Act	0	5	0.00
State Open University	0	14	0.00
State Private University	9	304	2.96
State Private Open University	0	1	0.00
Deemed University Government	0	34	0.00
Deemed University Government Aided	0	10	0.00
Deemed University Private	1	80	1.25
Grand Total	25	993	2.52

Source: The all India Survey on Higher Education (AISHE) Report 2018-19

Seven new universities have been opened in Jharkhand in after the year 2018-19. One institute of national importance, one state public university and 5 private

universities have been opened in the state. The total number of universities in the state has reached 32 in number.

**Table 11.28 (a): New Universities in 2019-20**

Types of Universities	New	Total
Central University		1
Central Open University		0
Institute of National Importance	1	5
State Public University	1	11
Institute under State Legislature’s Act		0
State Open University		0

Types of Universities	New	Total
State Private University	5	14
State Private Open University		0
Deemed University Government		0
Deemed University Government Aided		0
Deemed University Private		1
Grand Total	7	32

Source: Department of Higher and Technical Education and Skill Development

An important indicator of access to higher education is the Gross Enrolment Ratio (GER). Though it has improved over the years, it is still far below the national average. The GER for Jharkhand was only 7.5 per cent in 2010-11; it increased to 19 per cent in the year 2018-19. However, it is still below the national GER of 26.3 per cent. The GER of Jharkhand is about 27 per cent less

than that of the national average; for males it is about 26 per cent and for females, it is about 29 per cent less than that of the national average. For the SC and the ST population too the GER of the state is significantly below the national average. Hence enhancing GER at the higher educational institutions remains a major challenge for Jharkhand.

**Table 11.29: Gross Enrolment Ratio in Higher Education (18-23 Years)**

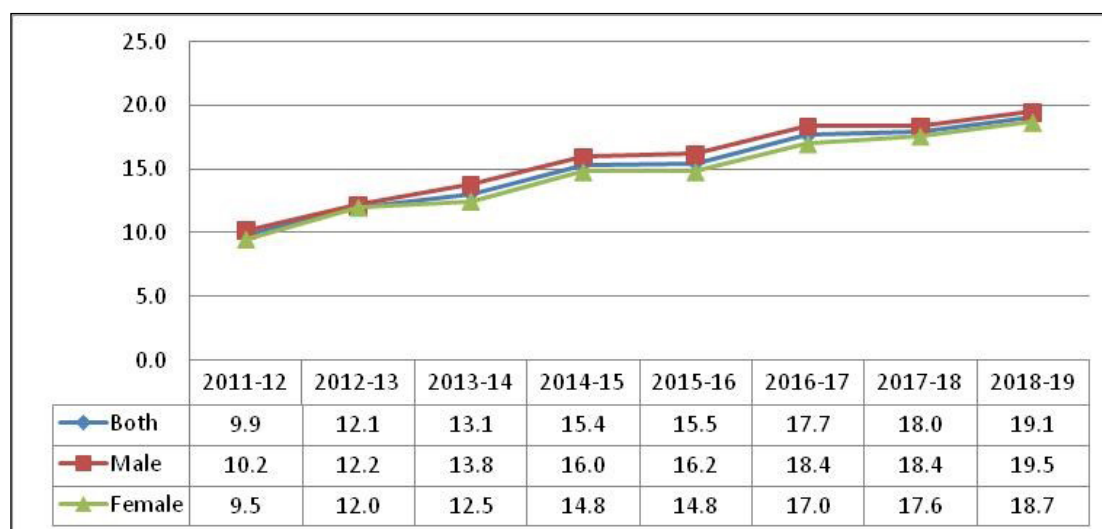
	All Categories			SC			ST		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Jharkhand	19.5	18.7	19.1	17.0	14.8	15.9	13.4	14.0	13.7
All India	26.3	26.4	26.3	22.7	23.3	23.0	17.9	16.5	17.2
Gap between Jharkhand and India	25.86	29.17	27.38	25.11	36.48	30.87	25.14	15.15	20.35

Source: The All India Survey on Higher Education (AISHE) Report 2018-19

The enrolment of both the males and females has increased in the last eight years. The GER of the males has increased from 10.2 to 19.5 and that of the females

has increased from 9.5 to 18.7 in the year between 2011-12 and 2018-19.

**Figure 11.10: Gross Enrolment Ratio in Higher Education (18-23 Years) over the years**



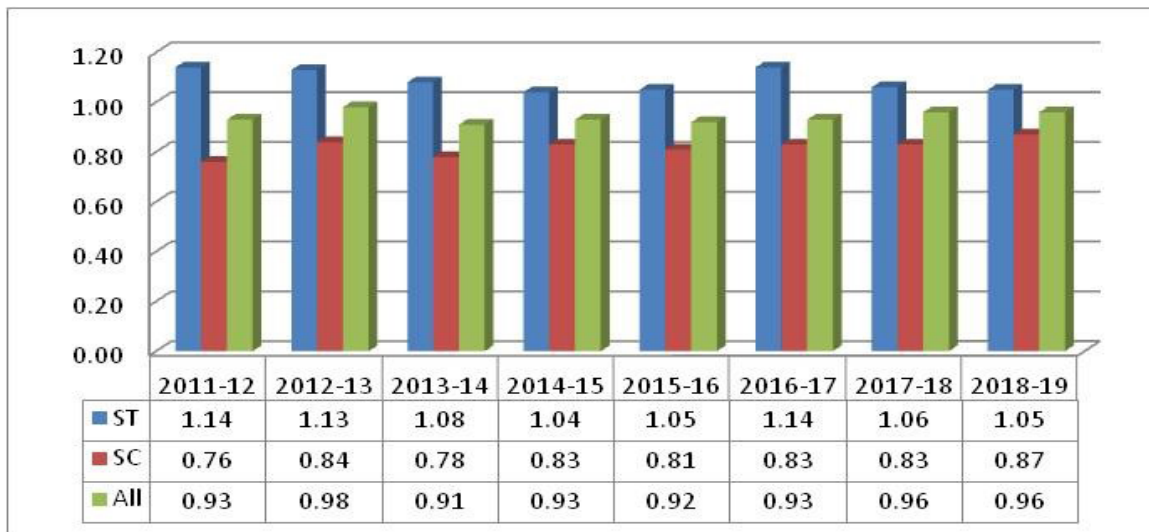
Source: The All India Survey on Higher Education (AISHE) Report (2010-11 to 2017-18)



There is a gender-disparity in higher education. Except for the STs, the gender-parity-index has remained less than 1 for all including the SCs. The gender-disparity, however, has gradually reduced. The gender-parity-

index for all the communities has improved from 0.93 to 0.96 and for the SCs it has risen from 0.76 to 0.87 between the years 2011-12 and 2018-19.

**Figure 11.11: Gender Parity Index in Higher Education (18-23 Years)**



Source: The All India Survey on Higher Education (AISHE) Report, 2018-19

**Pupil-Teacher-Ratio in Higher Education**

A major challenge for Jharkhand has been its high pupil-teacher-ratio in higher educational institutions. The pupil-teacher-ratio in the universities and colleges of Jharkhand is relatively high when compared to the all-India average. For instance, in 2018-19, the pupil-teacher ratio in the regular-mode colleges and universities of Jharkhand was 73, which is more than double than the all India ratio of 29. Overall, for all the higher educational

institutions in the state, the pupil-teacher-ratio stood at 54, compared to the national average of 24. Generally, the smaller student-faculty ratio ensures better learning outcomes. Hence, strengthening the student-faculty ratio in the higher educational institutions should be one of the priorities of the government to improve the quality of higher education in India.

**Table 11.30: Pupil-Teacher Ratio in Higher Education (in regular mode)**

	All Institutions	University & Colleges	University & its Constituent Units
Jharkhand	54	73	29
All India	24	29	18

Source: The All India Survey on Higher Education (AISHE) Report, 2018-19

**Number of Colleges and average enrolment**

Jharkhand has 313 colleges as per the last round of AISHE 2018-19. This is close to 1 per cent of the total number of colleges in the country. Jharkhand has a low college-density; there are only 8 colleges per one lakh youth population falling in the age group of 18 to 23

years. In India, there are 28 colleges per lakh population. Due to the paucity of colleges, the average enrolment per college is very high. While at the all India-level there are 693 students per college, in Jharkhand. There are 817 students per college in the state.

**Table 11.31: Number of Colleges per lakh population and the Average Enrolment per College**

	No. of Colleges	Colleges per lakh population	Average Enrolment per College
Jharkhand	313	8	817
All India	39931	28	693

Source: The All India Survey on Higher Education (AISHE) Report, 2018-19

### Hostel Facilities for Students Pursuing Higher Education

Hostels facilitate students of the remote parts of the state as well as those coming from other parts of the country to

pursue higher education. During the 2018-19, Jharkhand had 549 such hostels with an intake-capacity of 72,561 students. There were 306 boys' hostels and 228 girls' hostels in the state in the year 2018-19.

**Table 11.32: Hostel Facilities for Students Pursuing Higher Education**

	Boys' Hostels			Girls' Hostels			Other Hostels		
	Number	Intake	Residing	Number	Intake	Residing	Number	Intake	Residing
Jharkhand	306	44441	35705	228	27276	18187	15	844	506
All India Proportion	1.5	1.3	1.8	0.9	0.7	0.9	1.2	1.1	1.3

Source: The All India Survey on Higher Education (AISHE) Report, 2018-19

### State-Action-Plans to Enhance Higher Education

The Higher Education Plan of the state has been prepared under the Rashtriya Uchchatar Shiksha Abhiyan, a centrally sponsored programme. The plan comprises of creating universities through up-gradation of autonomous colleges, infrastructural grants to universities and colleges, creation of professional

colleges and enhancing the quality of education and excellence in autonomous colleges.

### Vocational and Technical Education

The number of Polytechnic Institutions in the state has increased from 40 in the year 2017-18 to 42 in the year 2020-21. The number of seats in these institutions has also increased from 11350 in 2017-18 to 11920 in 2020-21.

**Table 11.33: Number of Diploma Level Technical Institutes and their intake**

Type of Institute	No. of Polytechnic Institutes				Intake Capacity			
	2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2020-21
Government	13	17	17	17	2830	3610	3646	3670
PPP Mode	07	07	08	08	2220	2220	2520	2520
Private	20	21	17	17	6300	6600	5635	5730
Total :	40	45	42	42	11350	12430	11801	11920

There were 15 degree level technical institutions in the state in 2017-18. There number increased to 17 in 2020-21. Two of these institutions are managed by the government, three of them are managed in PPP mode and the remaining 12 by private parties. The number of government engineering colleges or those managed by PPP mode has remained the same over the last four

years. The number of private colleges has increased by 20 per cent in this period. The intake capacity of these colleges, however, has decreased in these four years. While the intake capacity of the colleges run on PPP mode has remained, the same that of the other two types of institutions has decreased.

**Table 11.34: Number of Degree Level Technical Institutes and their intake**

Type of Institute	No. of Degree Level Technical Institutes				Intake Capacity			
	2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2020-21
Government	02	02	02	02	920	920	890	890
PPP Mode	03	03	03	03	900	900	900	900
Private	10	11	10	12	3591	3471	2945	2935
Total :	15	16	15	17	5411	5291	4735	4725

**Jharkhand Skill Development Mission Society**

Various Programs of Skill Development have been undertaken by the Jharkhand Skill Development Mission Society.

**Saksham Jharkhand Skill Development Scheme –**

This Plan is a state run special program through which skill development programs are run in remote regions. Currently Saksham Jharkhand Skill Development Plan is being run in 29 training centres of the state through training service provider organizations. A total of 72232 trainees have obtained training in these centres. Skill training pertaining to 63 trades of 32 sectors is being given in these centres.

**Deen Dayal Upadhyay Skill Development Centre**

– For the purpose of providing quality skill training in the state on a wide scale, a 25000 square feet size Deen Dayal Upadhyay Skill Development Centre has been established. These training centres work as a cog in the wheel by establishing coordination with Saksham Jharkhand Skill Development Plan. Currently, a total of 38 Deen Dayal Upadhyay Skill Development Centres are being run across the state. At the same time, a total of 15 districts of the state are being covered under the Deen Dayal Upadhyay Skill Development Centre. Till now, a total of 40867 trainees have obtained training from these centres. In these centres, skill training is being provided in 66 trades of 19 sectors.

**Employability Excellence Centre and Education Learning (EXCEL) –**

In order to provide impetus to technical and skill knowledge as compared to formal education in the universities and colleges of the state, EXCEL program is being run. To run this special program, two prestigious training service providers viz.

IL and FS and TISS have been chosen. Currently, this training program is being run in 32 universities of the state. Under this special training program, youth are trained in soft skills like computers, spoken English and body language along with their traditional education. Up till now, a total of 5672 youngsters have obtained training under the EXCEL program.

**Recognition of Prior Learning (RPL) –**

Through this program, an assessment of skill capability of such people are being done who have acquired traditional knowledge through their ancestors. Work is being done to bring them under formal certification. Under this program, 1200 people have been trained in furniture fitting, 300 in plumbing, 925 in cleaning related work and 62 in iron and steel works. On October 2, 2018, on the occasion of Gandhi Jayanti, the training of a total of 925 cleaning personnel from three city municipalities began under the ambitious project.

**Pradhan Mantri Skill Development Program (State Unit) –**

This program is sponsored by the Central government and managed by the state government. This program has been started in the year 2018. Under this scheme, 19555 youngsters have been registered in 55 training centres through 45 training service providers. Out of these, skill training of 113 youngsters has been completed. The verification of 4930 trainees has been done by the relevant sector skill councils. The institution of training service providers has submitted a report that a total of 1289 trainees have obtained employment in private sectors.

A provision is also being made to bring the 120 centres of the Saksham Jharkhand Skill Development Scheme under this project in the financial year 2020-21.

**Table 11.35: The Number of Youths registered under the JSDMS (year wise).**

Scheme	2016-17	2017-18	2018-19	2019-20	2020-21
Employability Excellence with College Education and Learning (EXCEL)	0	1781	3981	0	0
Deen Dayal Upadhyay Kaushal Kendra (MEGA)	0	9538	19555	22601	0
Saksham Jharkhand Kaushal Vikas Yojana (SJKVY)	6365	23360	25891	23345	0
Recognition of Prior Learning (RPL)	0	0	2352	2526	0
Pradhan Mantri Kaushal Vikas Yojana (PMKYY)	0	0	0	19655	

**Table 11.36: The Number of Youth Employed, trained by JSDMS**

Sl No.	Scheme Name	No. of Candidates Placed
1	Employability Excellence with College Education and Learning (EXCEL)	2325
2	Deen Dayal Upadhyay Kaushal Kendra (MEGA)	18282
3	Saksham Jharkhand Kaushal Vikas Yojana (SJKVY)	22293
4	Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	1289

### New Initiatives

Jharkhand has topped in the creation of District Skill Development Plans. The latest skill development program SANKALP (Skill Acquisition and Knowledge Awareness for Livelihood Programme), which is being

run in 20 districts of the country, is operational in six districts of the state. Excellent work has been performed in these districts.

**Table 11.37: Milestones achieved by Six Districts of Jharkhand in the Financial Year 2019-2020**

Serial No.	District	Category
1.	Godda	Award of Excellence
2.	Girdih	Certificate of Excellence
3.	Gumla	Certificate of Excellence
4.	Chatra	Letter of Appreciation
5.	Koderma	
6.	Simdega	

In the current financial year (2020-21), the proposal for the project of District Skill Development Work for all districts of Jharkhand have been submitted to the Skill Development and Labour Ministry of the government of India.

### Migration Support Centre

The Migration Support Centres are being established in seven cities of the country namely New Delhi, Bengaluru (Karnataka), Hyderabad (Andhra Pradesh), Chennai (Tamil Nadu), Tirupur (Tamil Nadu), Kolkata (West Bengal) and Nimrana (Rajasthan) for trained youth who have obtained employment through the Jharkhand Skill Development Mission Society. These training centres shall provide service in the form of embassies to trained youth in different cities of the country. A large number of youth, trained by various training service providers of Jharkhand Skill Development Mission Society, go to these seven cities for employment.

These Migration Support Centres have been established to help youngsters coordinate with their companies

during the initial days of employment. Issues with respect to PF, Identity Card, Salary Slip, Over-time payment and Driving Licence – Adhaar Card (as required) are sorted through them. Another objective behind establishment of these centres is to see to it that the employed youngsters in different cities of the country, having undergone training by the government sponsored training programmes remain employed there and do not return to their homes due to any petty problem. The first Migration Support Centre shall be inaugurated in New Delhi in the near future.

### Vocational/ Technical Learning outside Formal Sources

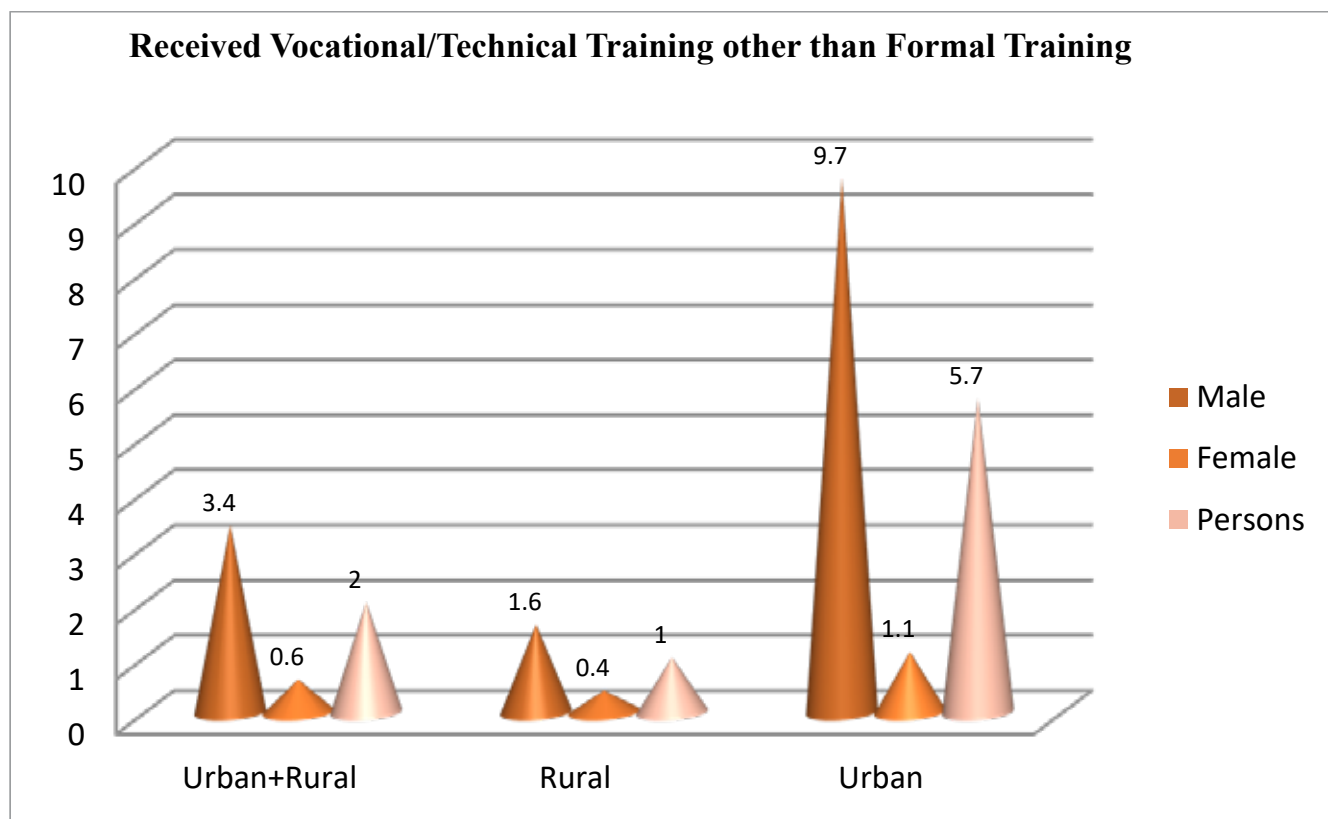
Vocational as well as technical learning takes place outside formal institutions. In many cases it is carried on from one generation to another. Some learn it on their own through personal efforts without any formal training. Others are trained on a vocation while on the job.

In Jharkhand about 2 per cent of the people - 3.4 per cent males and 0.6 per cent females, have received

vocational/ technical training outside formal institutions. In comparison to the rural areas the urban areas of the state have a larger percentage of people who have received vocational/technical training from outside the formal institutions. About 5.7 per cent of the people living in urban areas have received vocational/technical training from outside the formal institutions while only 1 per cent of the people living in rural areas have done so. Gender discrimination is visible in the acquisition of

skills outside the formal institutions too. Males both in the urban as well as in the rural area are more skilled than their female counterparts. While about 9.7 per cent males in the urban areas and 1.6 per cent in the rural areas have received vocational and technical training outside the formal institutions, only 1.1 per cent of females in the urban areas and 0.4 per cent in the rural areas have done so.

**Figure 11.12: Distribution of Male/Females who received Vocational/Technical Training**



**Conclusion**

Over the years, the state has made progress in most of the indicators of educational development. Amongst these indicators, the gaps between the males and females, those, between the rural and urban areas, between the state and the all India average and also among different social communities have narrowed down. The literacy rate of Jharkhand had increased from 66.4 per cent in 2011-12 to 73.2 per cent in the 2017-18. The gender parity in literacy has also improved. According to the

All India Survey on Higher Education (AISHE) 2018-19, Jharkhand has 25 universities constituting about 2.5 per cent of the universities of the country. Ten of these universities are state public universities and 9 of them are state private universities. The state has a well developed infrastructure for imparting vocational and technical education. The state has also made progress in the field of higher, technical and vocational education.

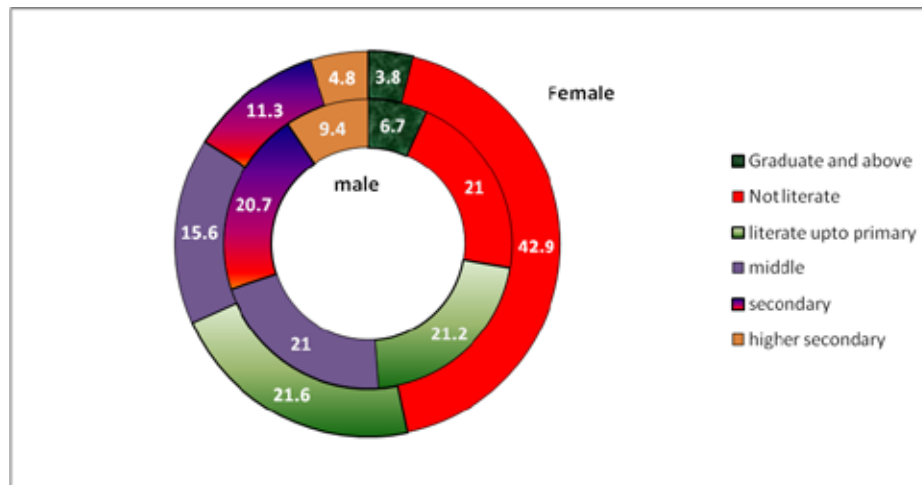
**Annexure 11.1**

**Educational Attainments of the 15+ age group**

The following graph denotes the ‘percentage distribution’ of people in the age group of 15 and above’ by the highest level of education successfully completed. More males as compared to females are ‘graduates’ as the illiteracy level is higher among women in Jharkhand as compared to men. As the level of education increases the discrepancy between males and

females too increases. According to the 75th NSSO, only 11.3 per cent of women have completed secondary education and an astonishing 4.8 per cent of women only have completed graduation; In case of males, more than 20 per cent men have completed secondary education and 6.7 per cent of men have completed graduation.

**Graph 1: Percentage distribution of persons in the age group of 15 and above’ by the highest level of education successfully completed.**



*Diploma/certificate up to ‘secondary/higher secondary/graduation & above’ level is included in the highest level of education.*

**Regional Disparity in Academic Performance in Jharkhand**

Average performance of students in Jharkhand district-wise in class 10 (Source: NAS 2017)

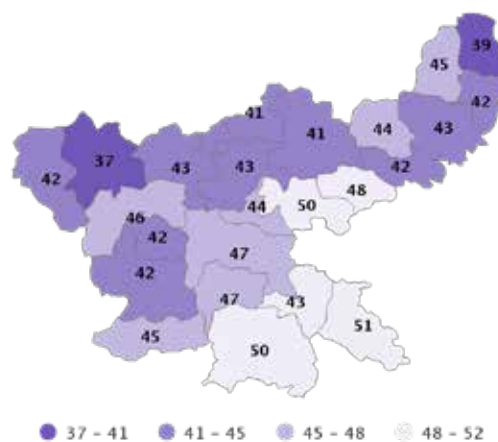
Total number of schools sampled- 1,763

Total number of students sampled – 63,729

Modern Indian Language (Reading Comprehension)

**MAP 1: Singhbhum, Bokaro, Saraikela, Ranchi and Dhanbad are the best performing districts in the Modern Indian Language (Reading comprehension) section in class 10, whereas Palamu and Sahibganj are the worst performing districts.**

**Average Performance of Students in Modern Indian Language(Reading Comprehension) in Class 10, Percent**

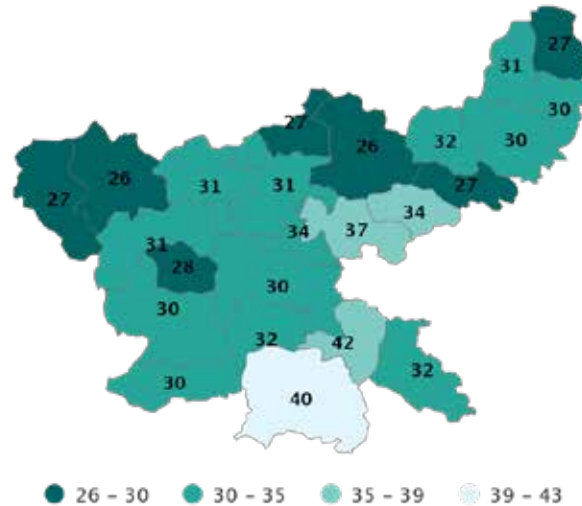


*1. Diploma/certificate up to ‘secondary/higher secondary/graduation & above’ level is included in the highest level of education.*

**English**

MAP 2: Pashchimi Singhbhum, Saraikela, Bokaro and Dhanbad are the best performing districts in English in class 10, whereas Palamu, Garhwa, Lohardaga, Kodarma, Giridih, Jamtara and Sahibganj are the worst performing districts.

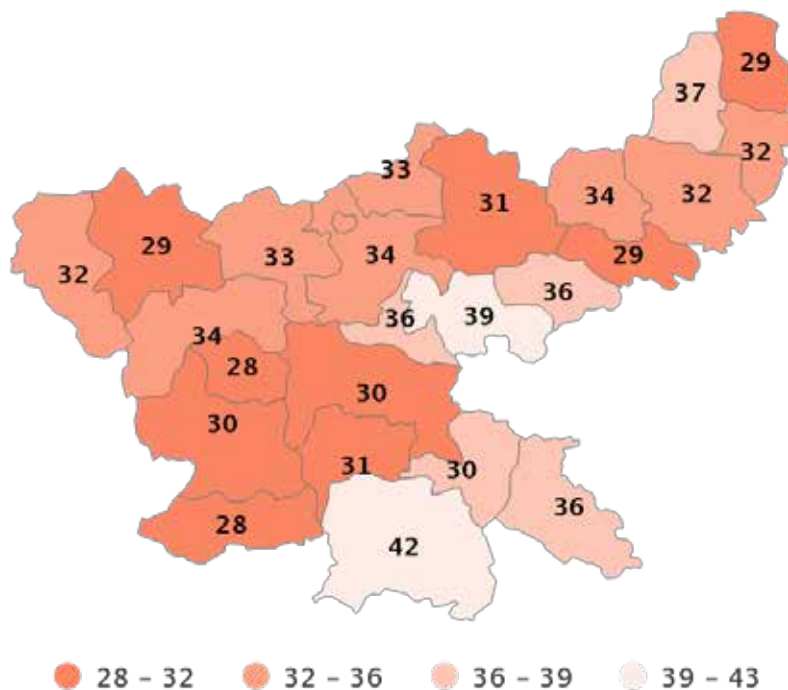
**Average Performance of Students in English in Class 10, Percent**



**Mathematics**

MAP 3: Pashchimi Singhbhum, Bokaro, Dhanbad, Ramgarh are the best performing districts in Mathematics in class 10, whereas Palamu, Garhwa, Lohardaga, Khunti, Gumla, Giridih, Jamtara and Sahibganj are the worst performing districts.

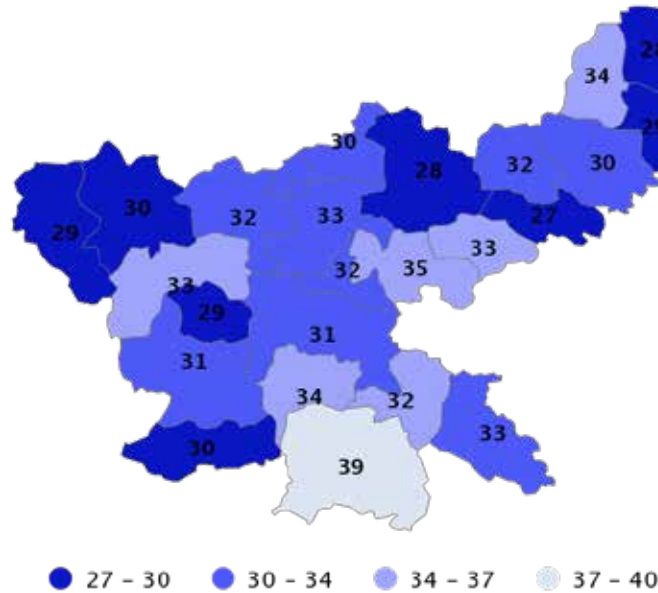
**Average Performance of Students in Mathematics in Class 10, Percent**



**Science**

MAP 4: Pashchimi Singhbhum, Bokaro, Dhanbad, Godda are the best performing districts in Mathematics in class 10, whereas Palamu, Garhwa, Lohardaga, Simdega, Giridih, Jamtara are the worst performing districts.

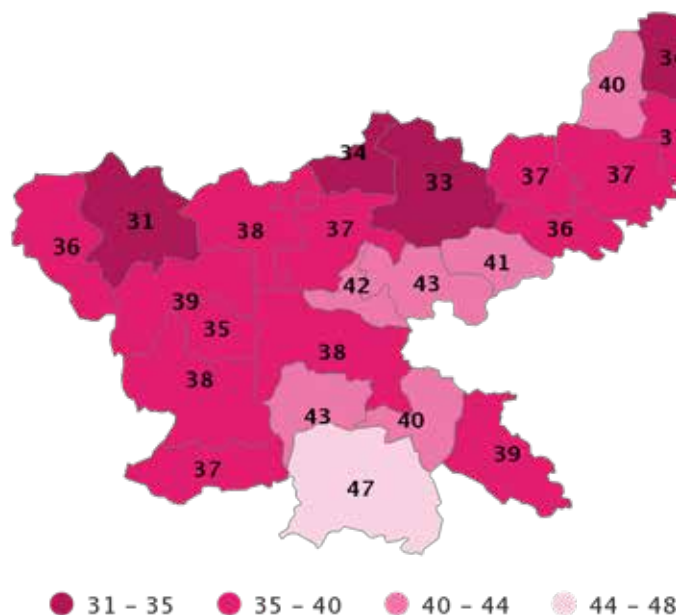
**Average Performance of Students in Science in Class 10, Percent**



**Social Studies**

MAP 5: Pashchimi Singhbhum, Khunti, Saraikela, Bokaro, Dhanbad, Godda, Ramgarh are the best performing districts in Social Studies in class 10, whereas Palamu, Kodarma, Giridih, Sahibganj are the worst performing districts.

**Average Performance of Students in Social Science in Class 10, Percent**





**Annexure 11.2**

**Role of Parents’ education on the education of children in Rural Jharkhand**

Children are either enrolled in private or government institutions; it is evident that fathers are more educated than mothers. Of all children in government schools, 24.6 per cent had fathers with no schooling; 14.6 per cent had fathers with 1-5 years of schooling; 17.6 per cent had fathers with 6-8 years of schooling; 29.3 per cent had fathers with 9-10 years of schooling; and 14 per cent had fathers with 11 or more years of schooling. Of all the children in private schools, on the other hand, 11.4 per cent had fathers with no schooling; 4.8 per cent had fathers with 1-5 years of schooling; 21.8 per cent had fathers with 6-8 years of schooling; 34 per cent had fathers with 9-10 years of schooling; and 28 per cent had

fathers with 11 or more years of schooling.

Of all children in government schools, 46 per cent had mothers with no schooling; 18.3 per cent had mothers with 1-5 years of schooling; 14.6 per cent had mothers with 6-8 years of schooling; 14.3 per cent had mothers with 9-10 years of schooling; and 6.9 per cent had mothers with 11 or more years of schooling. Contrarily, of all the children in private schools, 30.2 per cent had mothers with no schooling; 8.7 per cent had mothers with 1-5 years of schooling; 13.6 per cent had mothers with 6-8 years of schooling; 29.8 per cent had mothers with 9-10 years of schooling; and 17.7 per cent had mothers with 11 or more years of schooling.

**Table 24: Distribution of enrolled children by school type, mother’s education and father’s education level.**

Parents' education level	Mother			Father		
	Percent Children in			Percent Children in		
	Government	Private	Government & Private	Government	Private	Government & Private
No schooling	46.0	30.2	42.1	24.6	11.4	21.3
Std I-V	18.3	8.7	16.0	14.6	4.8	12.2
Std VI-VIII	14.6	13.6	14.4	17.6	21.8	18.6
Std IX-X	14.3	29.8	18.1	29.3	34.0	30.5
Std XI & above	6.9	17.7	9.5	14.0	28.0	17.5
Total	100	100	100	100	100	100

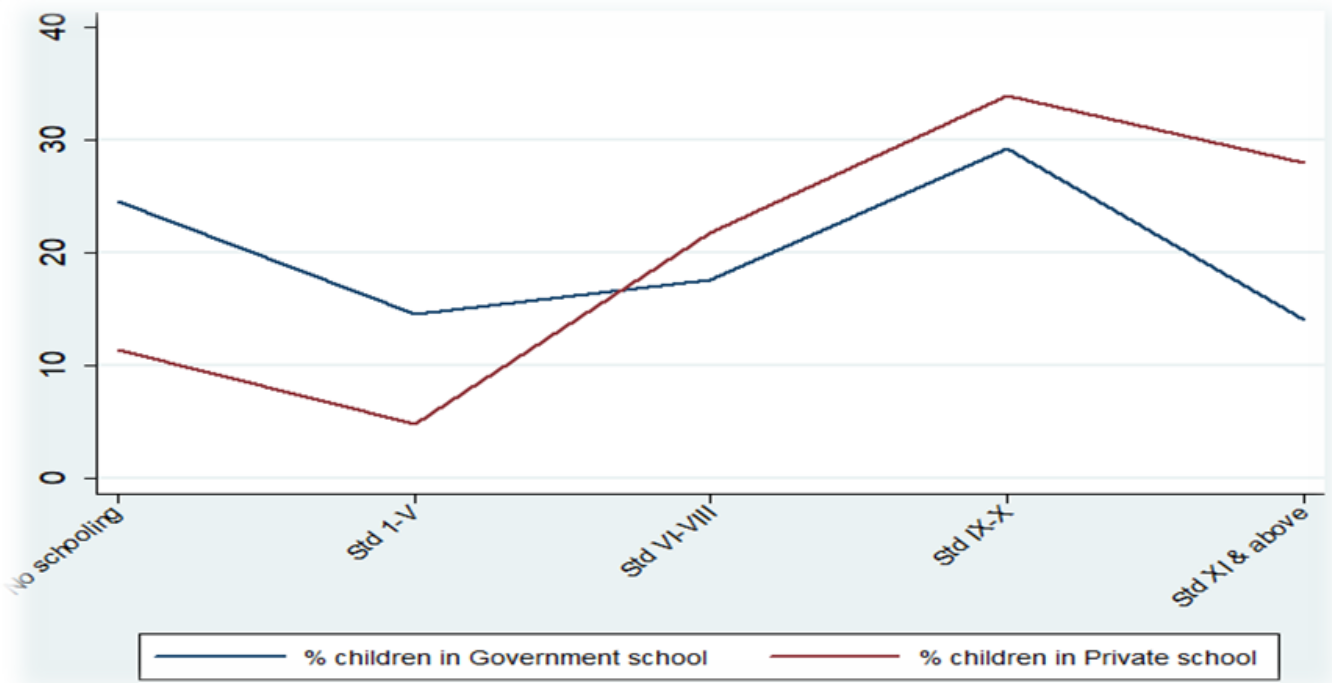
Source: ASER, 2020

More than 41.9 per cent of all mothers and an even higher proportion of fathers i.e. 66.5 per cent have completed more than 5 years of school. It is less than the national average which indicates that 53.1 per cent of mothers and 70.8 per cent of fathers in India have completed more than 5 years of school.

Compared to fathers’ education, mothers’ schooling has a comparatively bigger role in children’s schools. Though both graphs show that when mothers’ or fathers’

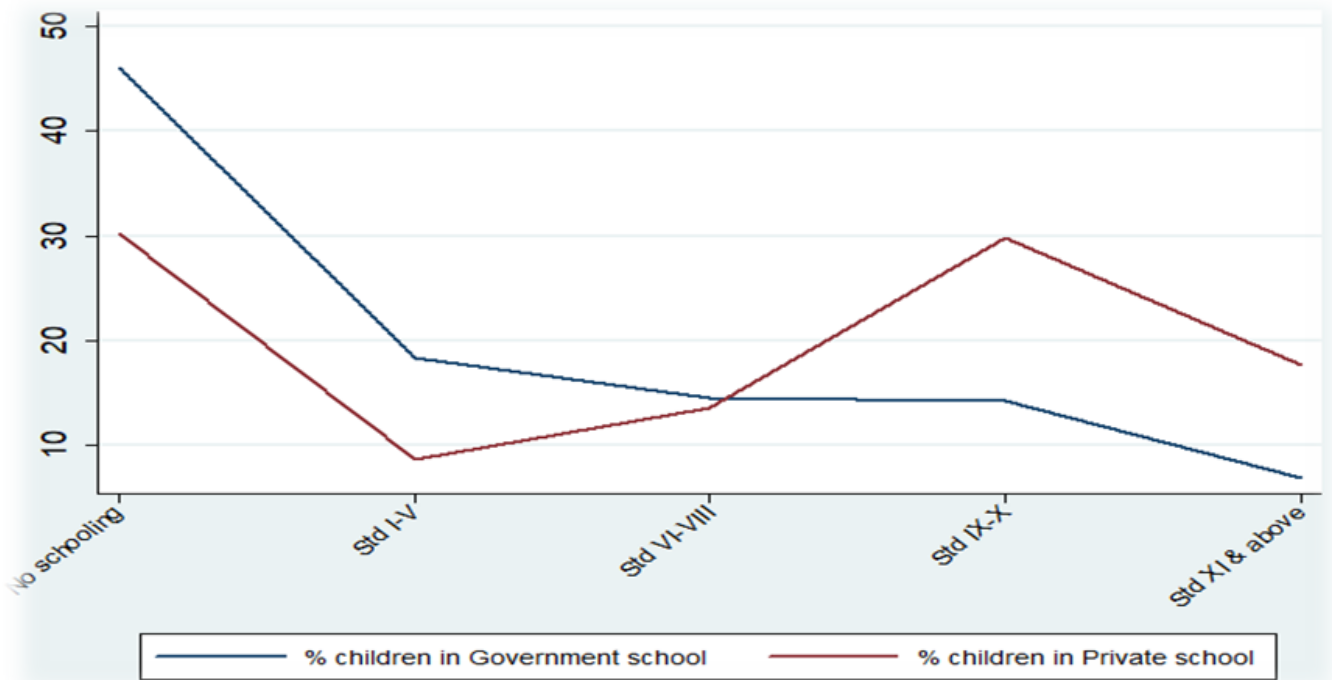
education level increases, their children are more likely to study in private schools. But when mothers’ education level increases, the gap between children enrolled in private schools and those enrolled in government schools is more than when their fathers’ education level increases. The huge gap in the case of mothers’ scholastic attainment shows that with a high level of education mothers tend to give more importance to education, and hence want their children to study in better schools.

**Graph 1: per cent of children studying in Government or Private schools varies with their fathers' education level**



Source: ASER, 2020

**Graph 2: Percentage of children studying in Government or Private school varies with their mother's education level**



Source: ASER, 2020

**Annexure 11.3**

**COVID 19 and Education level in Rural Jharkhand:**

Recent global estimates suggest that college closures, unequal access to technology-based educational inputs used for remote learning, and other related disruptions caused by the pandemic are likely to end in 'learning loss' and increased dropout rates, aggravating existing equity gaps in education, among other consequences. In India, numerous studies are done on the impact of the COVID-19 pandemic within the country since the primary lockdown was announced in March 2020, but only a few cover children's education. Although plenty of digital content has been generated and transmitted to assist children, there's limited evidence on the extent to which this content is after all reaching children; whether or not they are engaging with it; and also the impact it's has on their participation and learning.

In order to take the unprecedented pandemic-related constraints into account, while simultaneously addressing the urgent need for large scale nationally representative data on children's education, the ASER 2020 survey was adapted to a phone survey format that could be conducted in multiple waves, in order to capture the effects of the pandemic on different aspects of children's education.

The ASER 2020 Wave 1 survey was designed to be conducted at a time when schools have not yet reopened and governments and schools have been reaching out to children through a variety of remote means with diverse

educational content. It explores the provision of, and access to, remote education mechanisms and materials in rural parts of the country, and the ways in which children, families, and educators are engaging with these from their homes.

**Objectives:** The ASER 2020 Wave 1 survey focuses on the following key questions regarding provision of, access to, engagement with, and challenges concerning remote learning during school closures:

- What resources do families have to support children's learning at home?
- How are families and other community members helping children with learning activities?
- What learning materials and activities are children and families receiving from schools?
- How are families and children accessing learning material or activities?
- Are children engaging with these learning material and activities?
- What kind of contact do teachers and children/parents have with each other?
- What kinds of challenges are families and teachers facing with regard to remote learning?

Beyond the health consequences of COVID-19, the pandemic has caused school closures as well as economic hardships due to migration and loss of livelihood, among other reasons. ASER 2020 explored whether this unprecedented situation has caused shifts in children's enrolment patterns in rural India.

**Table 1: per cent Children enrolled in school by age group, sex and school type. 2020**

All	Government	Private	Other	Not in School	Total
Age 6-14	46.9	48.9	0.5	3.7	100
Age 7-16	49.1	46.1	0.4	4.4	100
Age 7-10	44.6	52.2	0.6	2.6	100
Age 11-14	50.9	44.2	0.4	4.5	100
Age 15-16	54.7	36.9	0	8.4	100
Boys	Government	Private	Other	Not in School	Total
Age 7-10	39.5	56.6	1	2.9	100
Age 11-14	48	47.5	0.7	3.9	100
Age 15-16	54.7	37.5	0	7.9	100

All	Government	Private	Other	Not in School	Total
Girls	Government	Private	Other	Not in School	Total
Age 7-10	50.4	47.2	0.3	2.1	100
Age 11-14	54.4	40.5	0	5.1	100
Age 15-16	55.1	35.7	0	9.2	100

Table 24 summarizes enrolment data for different age groups in the ASER 2020 sample. For children in the 6-14 age groups, these data show that overall, more than 47 per cent of all children are enrolled in government schools, and close to 49 per cent are enrolled in private schools.

This marks a change from two years ago, when the last comparable ASER survey was conducted (Table 25).

There has been a clear shift from private to government schools between 2018 and 2020, in all grades, and among both boys and girls (Table 25). In 2018 approximately 75 per cent and 25 per cent among boys were enrolled in Government schools and private schools respectively, whereas this graphs for boys changed to 72 per cent and 28 per cent respectively in Government schools and private schools in 2020.

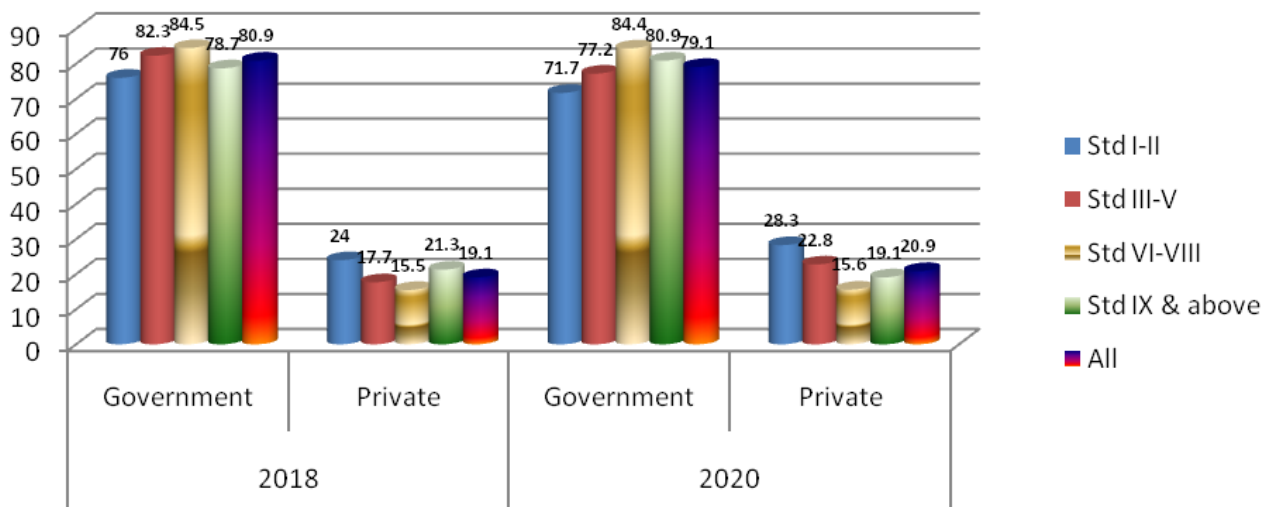
**Table 2: per cent Children enrolled in school. By age grade, sex and school type. 2020**

Std	2018						2020					
	Boys			Girls			Boys			Girls		
	Government	Private	Total	Government	Private	Total	Government	Private	Total	Government	Private	Total
Std I-II	67.7	32.3	100	76	24	100	64.1	35.9	100	71.7	28.3	100
Std III-V	75	25	100	82.3	17.7	100	72	28	100	77.2	22.8	100
Std VI-VIII	81.2	18.8	100	84.5	15.5	100	78.2	21.8	100	84.4	15.6	100
Std IX & above	76.7	23.4	100	78.7	21.3	100	73.6	26.4	100	80.9	19.1	100
All	75.1	24.9	100	80.9	19.1	100	72.3	27.7	100	79.1	20.9	100

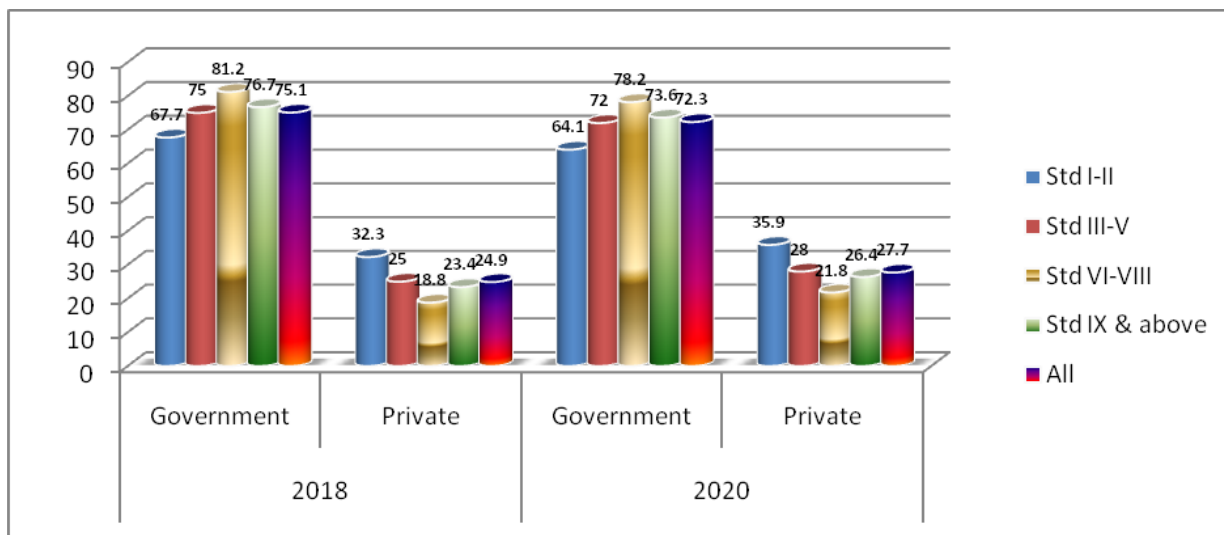
The following Graph 13 & 14 show that there has been a shift from government to private for girls as well for boys at all class levels. Overall, there is 2 per cent decrease in the enrolment of girls in government schools, in rural Jharkhand, whereas there is almost 8.5 per cent increase in the enrolment of girls in private schools. Graph 14 too, shows that there is 3.5 per cent decrease

in the enrolment of boys in government schools in rural Jharkhand, whereas there is almost a 10 per cent increase in the enrolment of boys in private schools. So, a slightly greater shift has happened in the case of boys compared with girls in rural Jharkhand.

**Graph 1: per cent of female Children enrolled in types of school in 2018 and 2020**



**Graph 2: per cent of male Children enrolled in types of school in 2018 and 2020**



**Who have smartphones?**

The pandemic turned smartphones from a luxury into a necessity as the schools conduct online sessions. ASER does not collect information on household income, but parents’ education levels can be used as a proxy for their socio-economic status. On an average, more educated parents have households with higher incomes. Table 5 shows, for example, that as parents’ education level rises, the likelihood that the household will have a smartphone also increases; and the probability that the sampled child is studying in a government school decreases:

- 1) A little more than a quarter of all children have parents in the ‘low education’ category (29.6 per cent). The vast majority of these children study in government schools (88.4 per cent) and less than half of their families have a Smartphone (43.7 per cent).
- 2) Almost a quarter of all children have parents in the ‘high’ education category (23.3 per cent). But a far lower proportion is in government schools (54.7 per cent), while most have families with a smartphone (68.8 per cent).

**Table 3: Distribution of enrolled children by parents' education and household resources. 2020**

Parents' education	Percent children	Percent whose households have smartphones	Percent Enrolled in Government school
Low	29.6	43.7	88.4
Medium	47.1	46.8	77
High	23.3	68.8	54.7
All	100	51	75.2

Note: We categorize parents' education as follows: 'low' parental education includes families where both parents have completed Std V or less (including those with no schooling). At the other end of the spectrum, the 'high' parental education category comprises families where both parents have completed at least STD IX. All other parents are in the 'medium' category, where there are many possible combinations.

**Do children have a Smartphone at home?**

Although the proportion of children from households with assets like TV and motorized vehicles has changed only slightly over the last two years (in fact decreased for TV), the proportion owning a Smartphone has increased enormously (more than double) – from 20.6 per cent to 50.2 per cent.

**Table 4 : per cent Enrolled children with selected assets available at home- 2018 and 2020**

Household resource	ASER 2018			ASER 2020		
	Government	Private	Government & Private	Government	Private	Government & Private
Smartphone	16.5	35	20.6	47.9	57.1	50.2
TV	29.4	48.8	33.6	25.7	49.8	31.6
Motorized vehicle	26.2	50.8	31.6	32.8	52.9	37.7

The percentage point increase in Smartphone ownership is more than double in households where children are enrolled in government schools showing that households bought a new phone to support their children's education after schools closed in March 2020. In households with children enrolled in private schools, the percentage

increase in Smartphone ownership is not that high, showing they must be already be in possession of such phones.

**Learning support for children at home**

**Do children have textbooks at home?**

**Table 5: per cent Enrolled children who have textbooks for their current grade in Rural Jharkhand.**

Std	Government	Private	Government & Private
Std I-II	72.8	69.9	71.9
Std III-V	81.1	74.5	79.4
Std VI-VIII	85.5	70.8	82.9
Std IX & above	70.9	70.1	70.7
All	78.9	71.6	77.1

Table 6 indicates that in all grades, a very high proportion of children have textbooks for their current grade. For every grade, the percentage of children in government schools who have textbooks is higher than among

children in private schools. This is possible because with students not going to schools, a lot of parents gave up on buying new books.

**Do families help children while studying at home?**

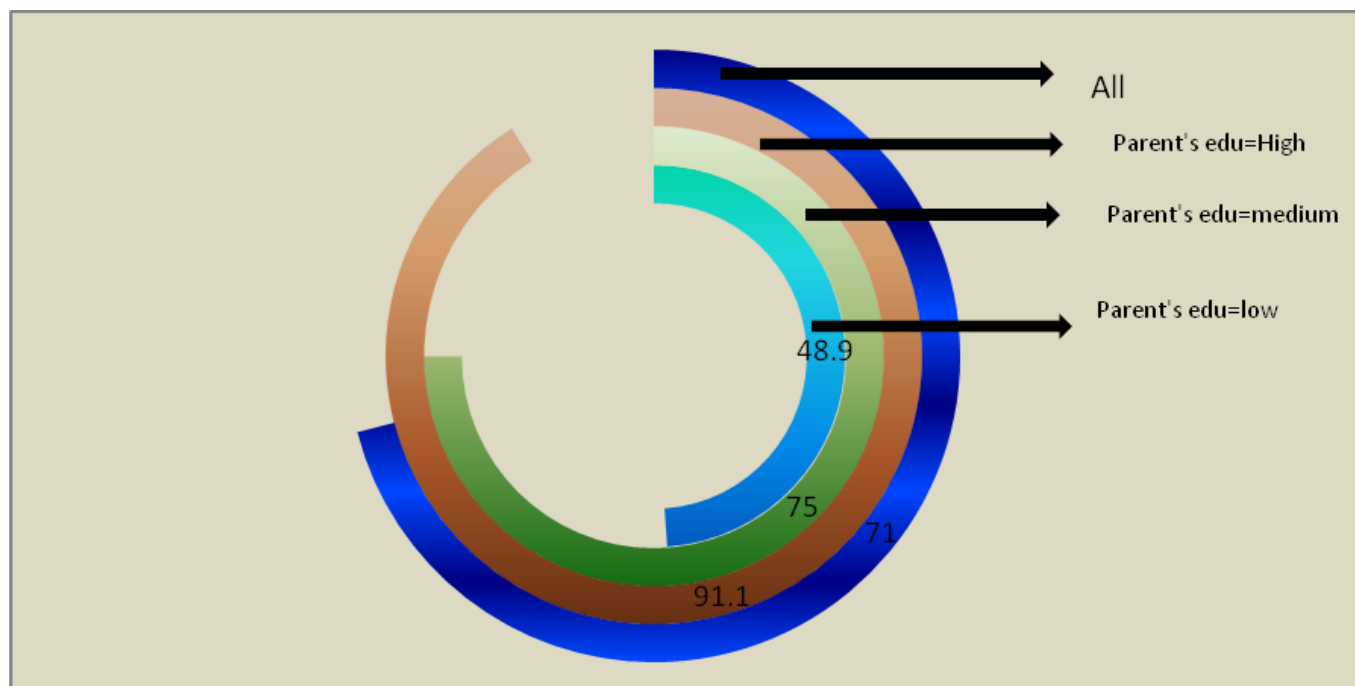
**Table 6 : Enrolled children who receive help from family members while studying at home (by grade and school type) 2020**

**in per cent**

Std	Government	Private	Government & Private
Std I-II	75.6	87.5	79.5
Std III-V	63.3	81.3	68.0
Std VI-VIII	68.7	77.8	70.4
Std IX & above	66.6	58.5	64.9
All	68.1	78.4	70.6

- Taking all children across different grades, 70 per cent of all children receive help from family members.
- For both types of schools, younger children receive help from families far more than older children do. Overall, 79.5 per cent children in STD I-II receive help from family members as compared to 64.9 per cent children in STD IX and above.
- For each grade level, private school children get more help than government school children. For example, for children in STD III-V, 63.3 per cent government school children receive help as compared to 81.3 per cent of children enrolled in private schools.

**Graph 3 : Per cent of enrolled children who receive family support for learning (by state and parents' education). 2020.**



- Clearly, the more educated the parents, the more help their children receive. Although school closures had relatively little impact on children's tuition, these data reveal significant family support for children's education even among children whose parents have only studied up to Std V or less (the 'low' category of education).

**Did children receive any learning material or activities during the reference week?**

Overall, approximately 28 per cent of enrolled children received some kind of learning material or activities

from their teachers during the reference week. A slightly larger proportion of students in VI-VIII received material as compared to lower classes. For example, close to 33 per cent of students from VI-VIII received material as compared to 23.6 per cent of children in STD I-II. Strangely, a higher percentage of government school children received learning material/activities as compared to private school children in the same grades. The all-India average shows private school children received higher learning material/activities as compared to government school children (Private- 40.6 per cent Government- 33.5 per cent)

**Table 7: per cent Enrolled children who received learning materials/activities in the reference week by grade and school type. 2020**

Std	Government	Private	Government & Private
Std I-II	25.2	20.2	23.6
Std III-V	29.2	21.3	27.1
Std VI-VIII	31.5	37.7	32.6
Std IX & above	26.5	21.3	25.3
All	28.6	24.6	27.6



**Through what medium did children receive learning material or activities?**

As noted above, only 28 per cent of children received material or activities during the reference week. But those who did receive material received it in a variety of ways. Regardless of school type, WhatsApp was by far the most common medium used for sharing learning

material and activities, followed by phone calls and visits. A higher proportion of students enrolled in private schools received materials through WhatsApp than their counterparts in government schools. Accessing material/opportunities via phone calls or visits was more common among children enrolled in government schools.

**Table 8 : Of enrolled children who received learning material/activities in the reference week, per cent of children who received these through different mediums. By school type and medium, 2020**

School type	WhatsApp	Phone call	Personal Visit	Other
Government	78.4	4	17.6	4.1
Private	93.6	3.1	3.7	0.9
Government & Private	81.7	3.8	14.6	3.4

**If households did not access learning material or activities during the reference week, what did they say was the reason?**

School type	School not sending	No internet	No Smartphone	Connectivity issues	Other
Government	38.8	10.9	54.2	5.6	8.2
Private	58.8	8.8	45.2	3.3	5.7
Government & Private	43.8	10.3	52	5	7.5

Families cited different reasons for their children not receiving learning material or activities during the reference week. children enrolled in acrossgovernment and private schools, most parents said that the school had not sent material (43.8 per cent). Overall, almost half of sampled children's parents mentioned not having a Smartphone as a reason (52 per cent), with more parents of children enrolled in government school highlighting this reason (54.2 per cent) than those whose children are enrolled in private schools (45.2 per cent).

received learning material and activities from schools in the week prior to the survey in September 2020, this section analyses whether children actually engaged with different kinds of material and activities during that week. Households were asked about a variety of material and activities received from any source, including traditional material like textbooks and worksheets (in print or virtual format), lessons that were broadcast on television or radio; and online activities such as pre-recorded videos or live classes.

**Children’s engagement with learning materials and activities**

While the previous section looked at whether households

**Table 9 : per cent enrolled children who engaged in learning activities during the reference week by school type and type of material. 2020**

School type	Traditional		Broadcast		Online	
	Textbook	Worksheet	TV	Radio	Videos/ recorded classes	Live online classes
Government	53.3	23.1	8.2	0.5	18	4.4
Private	56.5	29.9	13.8	0.6	27.6	19.4
Government & Private	54.1	24.7	9.6	0.5	20.3	8.0

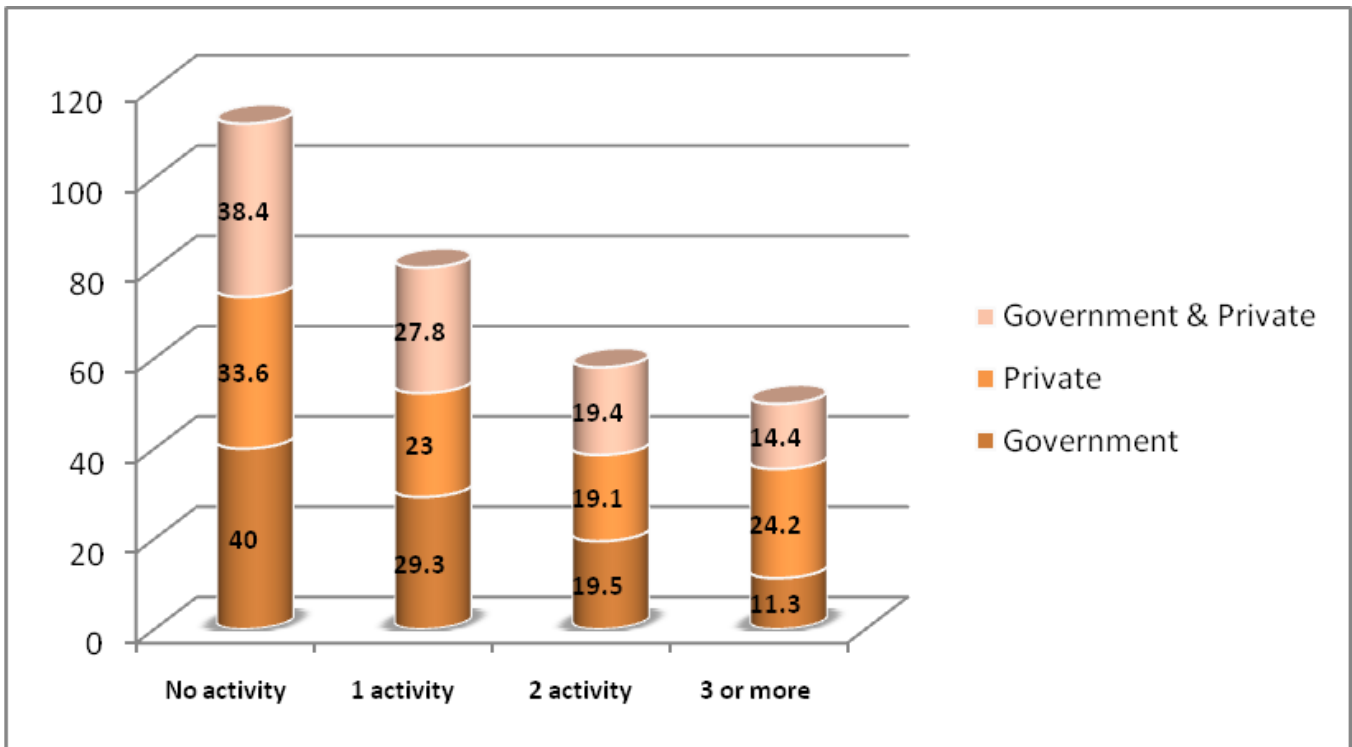
Even though only 28 per cent of all children received material from their schools during the reference week, households reported that most children did do some learning activity during that week. While the proportion of children doing different types of activities is quite similar for government and private schools, there is one significant difference. Children enrolled in private schools were much more likely to be connected to online classes and recorded video lessons. For example,

- While close to 55 per cent of all children in both types of schools reported using textbooks during the reference week, 27.6 per cent of private school children reported using recorded video lessons as opposed to 18 per cent of government school children.

- Further, 19.4 per cent children in private schools accessed live online classes during the reference week as compared to 4.4 per cent of government school children.

Based on responses from households the following graph shows that 40 per cent students in government schools and 34 per cent children in private schools did not do any of these activities during the reference week. Close to 15 per cent of all children did three activities or more. In this category, there is a higher proportion of private school students (24.2 per cent) as compared to government school students (11.3 per cent).

**Graph 4 : Per cent enrolled children by the number of learning activities done during the reference week by school type and number of activities, 2020**



**How much contact was there between school and home during the reference week? And since schools closed?**

Even when schools are closed, contact between the home and school is important. Teachers and parents/families need to discuss how the child is doing both academically and in terms of physical and emotional well-being. ASER 2020 explored this issue in two ways:

whether parents and teachers had been in touch (phone or visit) during the reference week; and if not, whether there had been in contact since the lockdown began in March 2020.

**Table 10: Per cent enrolled children in contact with schools by school type and type of contact**

School type	Contact to discuss learning materials/activities and child's progress/ wellbeing			Contact for administrative purposes
	Teacher visited or called parent/child in the reference week	Parent/child visited or called teacher in the reference week	Of those who had no contact in the reference week, teacher or parent/ child called or visited each other at least once since the lockdown	Teacher or parent/ child contacted each other at least once since the lockdown
Government	28.6	22.9	10.4	35.4
Private	25.3	27.8	12	18
Government and Private	27.8	24.1	10.8	31.5

The data indicates that overall, about one-fourth of all children's teachers contacted parents/families during the reference week. Students enrolled in government schools were approached more compared those in private

schools. Families with children in private schools contacted teachers by themselves relatively more than families with children in government schools.

# Chapter 12

## Health and Nutrition





## Introduction

Jharkhand, one of the Empowered Action Group (EAG) states, continues to strive to reduce poverty and under-nutrition levels to enable the achievement of goals 2 and 3 under the Sustainable Development Goals (SDGs). This chapter attempts to highlight the trends and patterns of health and nutritional status of the state based on secondary information and information provided by the Department of Health, Health Education and Family Welfare, Government of Jharkhand.

## Demographic indicators

The projected population of the state stands at 3.7 crores in 2020, with the male and female population of 1.9 crores and 1.8 crores respectively. The demographic indicators of the state vis-à-vis India has improved over the years. Notably, the Infant Mortality Rate (IMR) per 1000 live birth has fallen from 34 to 31 during 2016-20 and is expected to reduce to 24 in the state by 2031-35. Similarly, the Under-5 mortality rate (U5MR) per 1000 live births has reduced from 49 to 45 and is expected to fall to 35 by 2031-35. However, at the national level the expected U5MR of 43 is still higher than the SDG goal of 25 which the country is expecting to achieve by 2030.

**Table 12.1: Demographic Indicators**

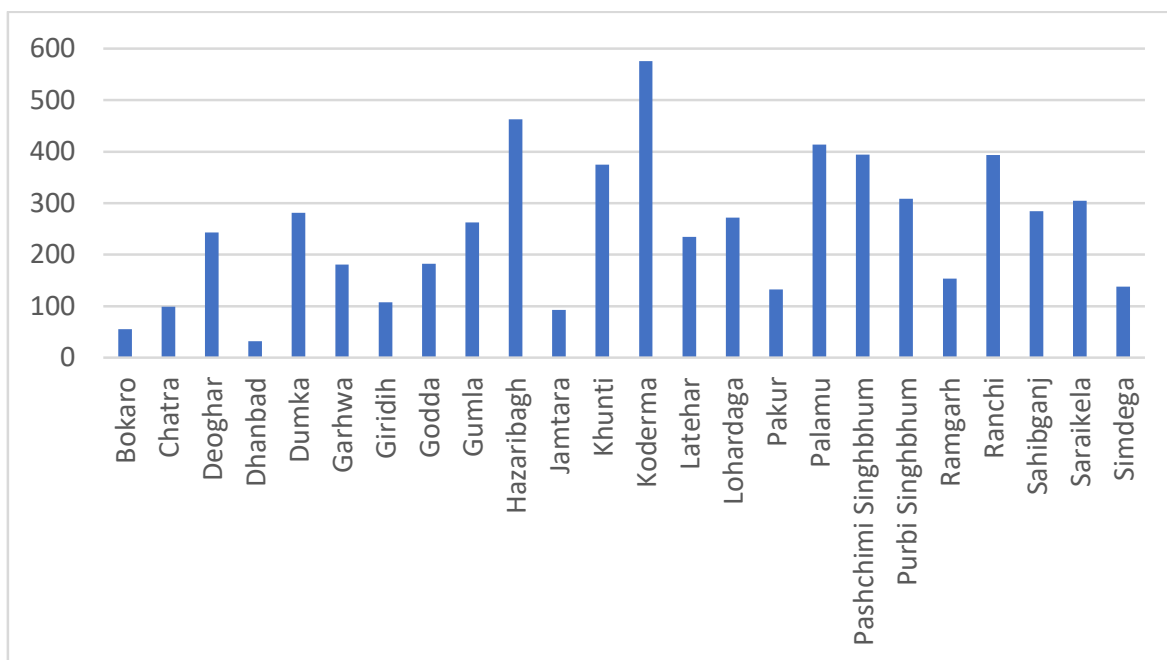
Indicators	Jharkhand					India				
	2011-15	2016-20	2021-25	2026-30	2031-35	2011-15	2016-20	2021-25	2026-30	2031-35
Population growth rate	16.4	14.4	12.5	10.7	8.8	12.7	10.7	8.9	7.2	5.7
Crude Birth Rate (CBR)	22.1	20.5	18.8	17.3	15.6	19.6	17.9	16.1	14.4	13
Crude Death Rate (CDR)	5.8	6.1	6.3	6.5	6.8	6.9	7.2	7.2	7.2	7.3
Infant Mortality Rate (IMR)	34	31	28	26	24	42.9	38.5	35.3	32.3	29.7
Under-5 mortality rate (q5)	49	45	42	38	35	56.7	50.9	46.7	42.8	39.4
Total Fertility Rate (TFR)	2.78	2.46	2.17	1.98	1.87	2.34	2.13	1.93	1.8	1.72
Life expectancy of males	68.4	69.4	70.4	71.2	72	66.87	68.37	69.37	70.37	71.17
Life expectancy of females	69.06	70.56	71.76	72.96	73.96	69.96	71.46	72.66	73.66	74.66

Source: Report of the Technical Group on Population Projections, RGI, 2019

## Morbidity indicators

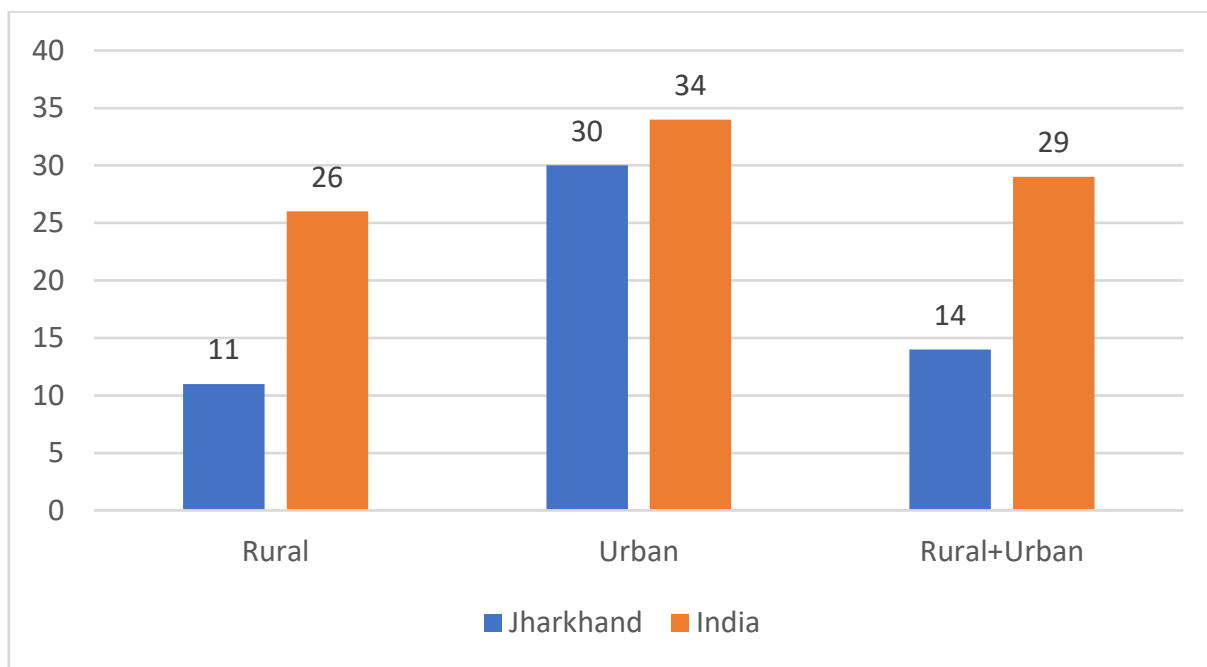
Health seeking behaviour of individuals depends on various factors which varies drastically across regions and sub-regions. Availability, affordability and accessibility often hinder access to health care in the State. The tables below depict the trends in health seeking for in-patient care (IP) and out-patient care (OP) in the state and India. Figure 1 shows the total number of in-patients (per 10000 population) visiting government hospitals across the districts, with Koderma reporting the highest number of hospitalization-cases followed by Hazaribagh. Dhanbad has the lowest number of in-patients per 10000 population visiting government hospitals. According to the recent National Sample Survey (NSS) estimates, the number of persons per 1000 as in patients during the last 365 days was 14 in the state against the national average of 29 (Figure 2). The figures exclude hospitalization for childbirth.

**Figure 12.1: Number of in-patients Visiting Govt. Hospitals (2019-20) (Per 10000 population)**



Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

**Figure 12.2: Number per 1000 of persons treated as in-patients during the last 365 days**

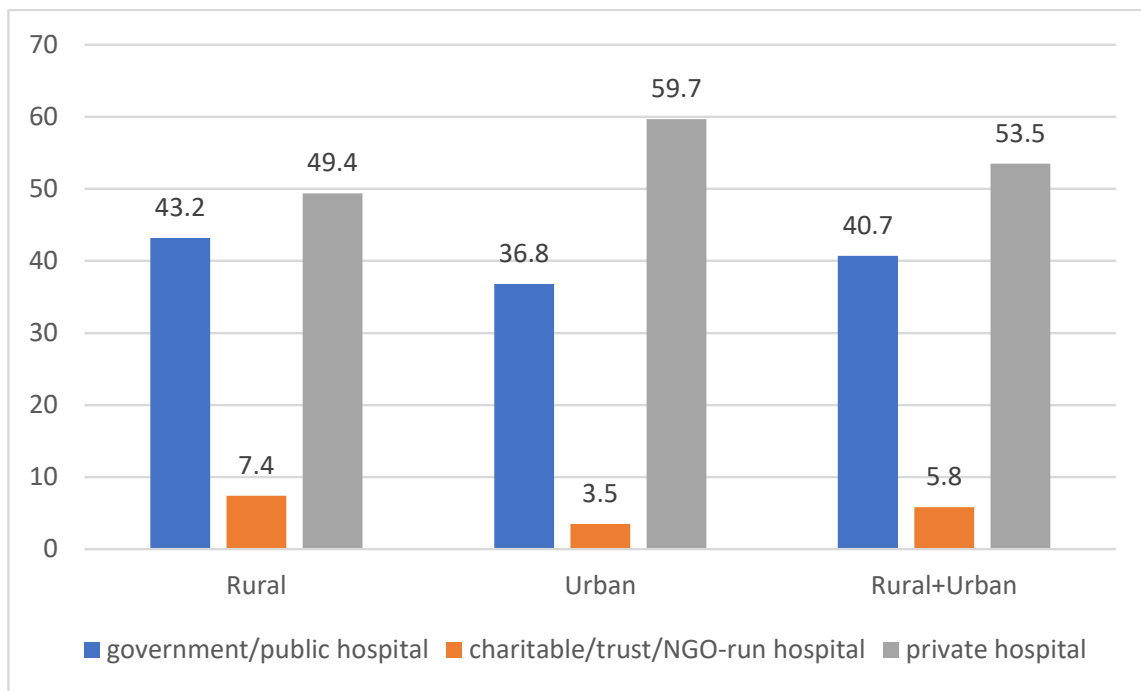


\*excluding hospitalization for childbirth

Source: NSS Report no. 586: Health in India, 2019

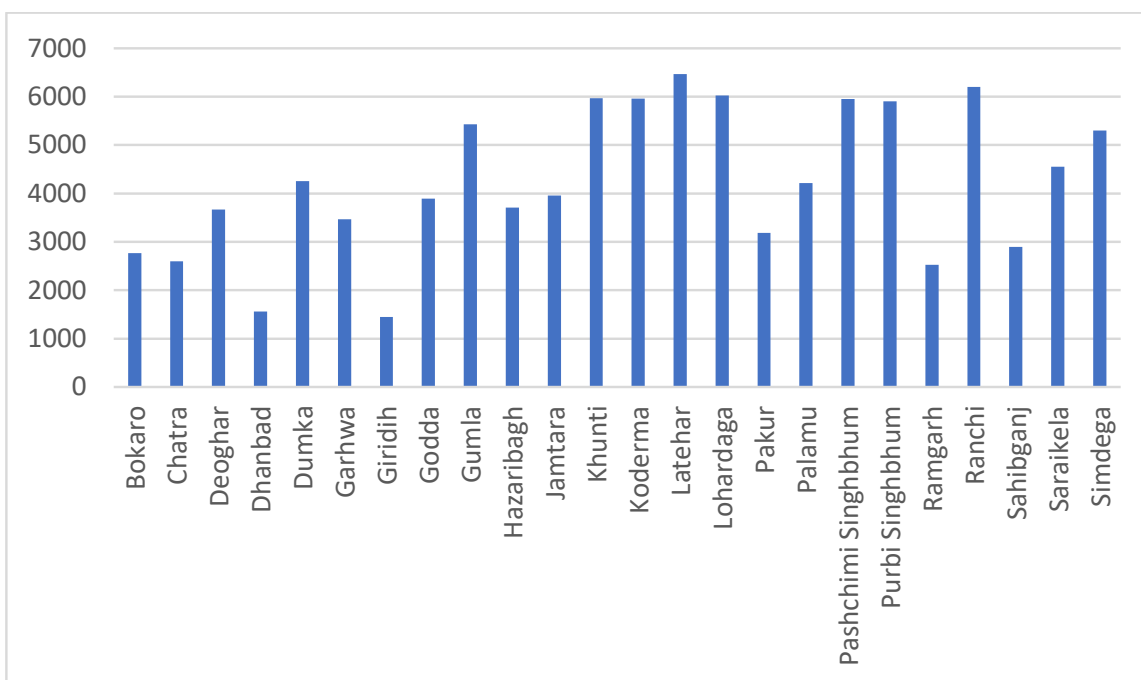
Further disaggregation shows the proportion which sought in-patient care across the types of hospitals. Overall, a higher proportion of patients sought treatment in private hospitals compared to public hospitals (Figure 3). However, the number of patients seeking treatment in government hospitals was slightly higher in the rural areas compared to the urban areas. A small proportion of patients also visited charitable trusts/NGO run hospitals in the rural areas.

**Figure 12.3: Percentage break-up of hospitalisation (excluding childbirth) cases by type of hospital**



Source: NSS Report no. 586: Health in India, 2019

**Figure 12.4: Number of Out-patients Visiting Govt. Hospitals (Per 10000 population)**

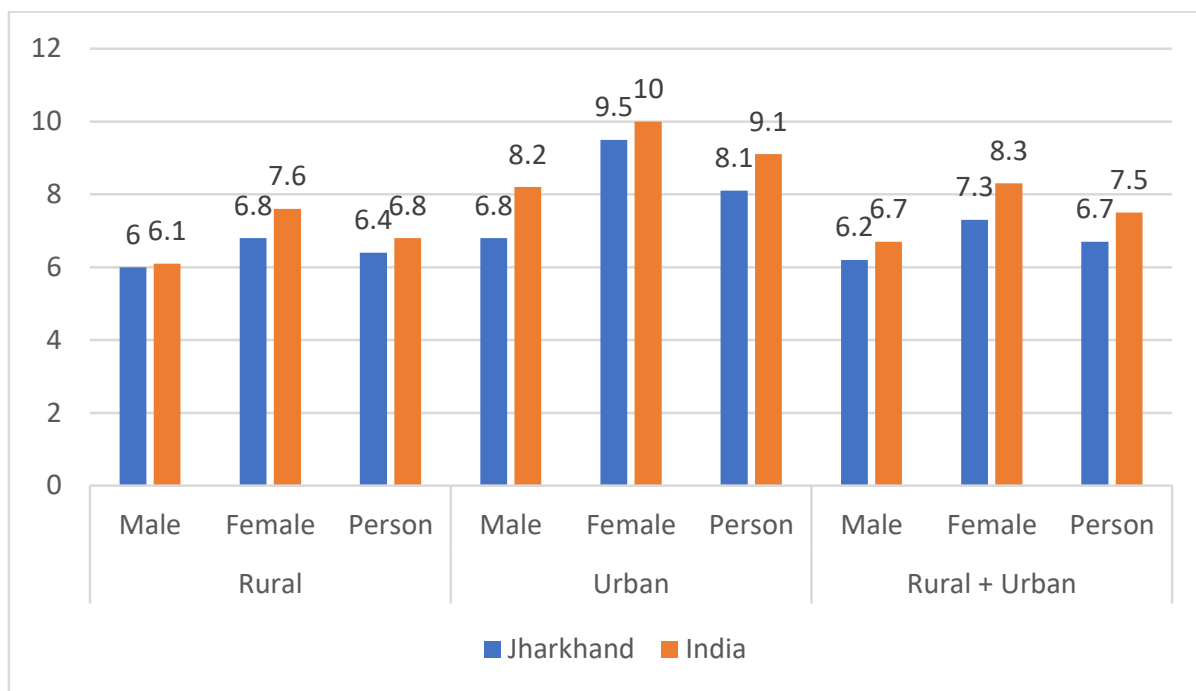


Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

The number of out-patient visits per 10000 population in the state was seen to be the highest in the district of Latehar followed by Ranchi (Figure 4), while the lowest was in Giridih. In the NSS report, OP care was depicted as the proportion of persons that responded as ailing (PPRA) over a 15 day period. PPRA in the state was 6.7 per cent against the national average of 7.5 per cent. Further, 6.2 per cent of males and 7.3 per cent of females were reported as ailing in the state as compared to the national average of 6.7 per cent and 8.3 per cent for males and females respectively (Figure 5).

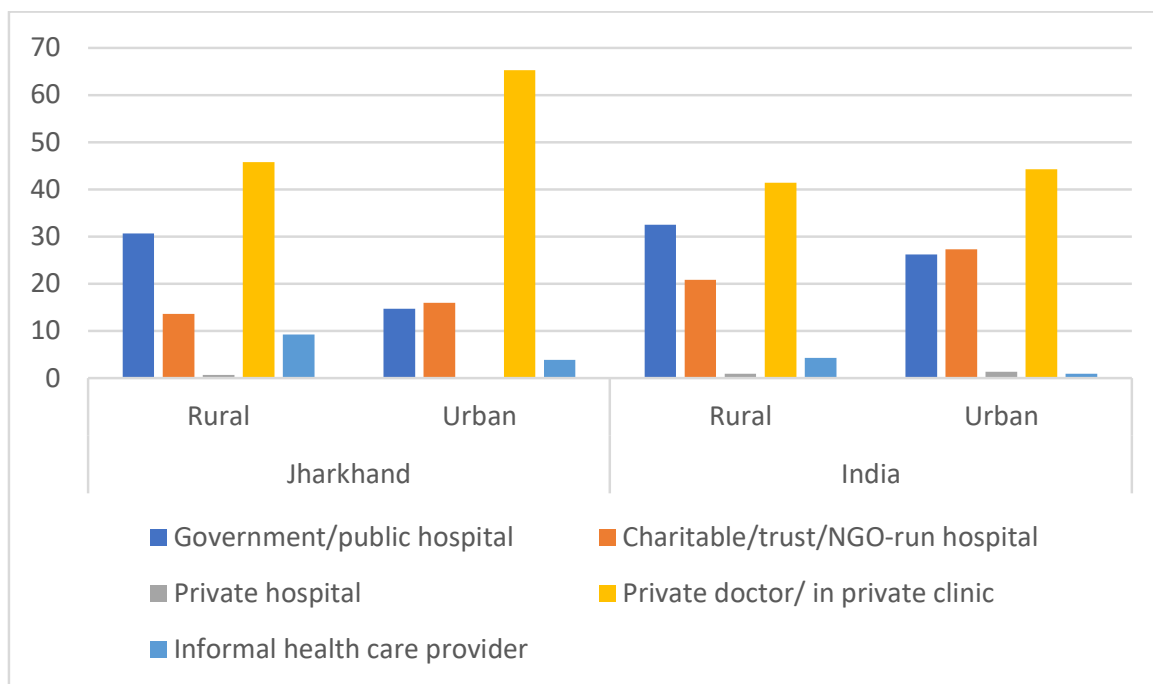


**Figure 12.5: Percentage of Persons that Responded as Ailing (PPRA) in a 15-day period**



Source: NSS Report no. 586: Health in India, 2019

**Figure 12.6: Percentage distribution of spells of ailment with treatment taken on medical advice over healthcare service provider during the last 15 days**



Source: NSS Report no. 586: Health in India, 2019

Across the type of hospitals where treatment was sought for spells of ailment, it was the private doctors/private clinics which had the highest proportion of patients visiting in the rural and the urban areas, both in Jharkhand and in India. A substantial proportion of ailments was also treated by informal health providers in the rural areas of Jharkhand.

## Disease Burden

Deaths due to communicable and non-communicable diseases continue to be a major public health-issue in the country. The state too reports significant numbers of deaths due to communicable and non-communicable diseases. The most common vector-borne diseases which are widespread in the state are dengue, malaria and chikungunya.

**Table 12.2: District-wise malaria cases reported (January to September 2020) and Prevalence rate per lakh population**

District	Malaria cases	Prevalence rate per 1 Lakh Population
Bokaro	215	8
Chatra	885	74
Deoghar	13	1
Dhanbad	28	1
Dumka	103	6
Garhwa	2814	182
Giridih	2638	91
Godda	572	38
Gumla	808	69
Hazaribagh	1412	67
Jamtara	12	1
Khunti	1470	224
Koderma	342	51
Latehar	4738	574
Lohardaga	273	49
Pakur	299	30
Palamu	1737	80
Pashchimi Singhbhum	13318	769
Purbi Singhbhum	2464	82
Ramgarh	365	29
Ranchi	347	10
Sahibganj	611	45
Saraikela	1075	87
Simdega	594	82
Jharkhand	37133	94

*Source: Health, Health Education and Family Welfare Department, Government of Jharkhand*

The number of malaria cases across the districts in Jharkhand for the period-January to September 2020 was reported to be 9277, with Pashchimi Singhbhum reporting the highest number of cases followed by Garhwa and Purbi Singhbhum. The prevalence rate per 100000 population was the highest in Pashchimi Singhbhum (769 per 100000 population) followed by Latehar (574 per 100000 population). Contrarily, the prevalence rate of malaria in the districts of Deoghar, Jamtara and Dhanbad were negligible, i.e. 1 per 100000 population.

## Coronavirus-19

A new addition in the list of infectious diseases is the novel Corona virus disease (COVID-19) which spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. The first case of COVID-19 case was reported in the district of Ranchi on 31st March 2020.

**Table 12.3: District-wise status of COVID-19 (as on December 14, 2020)**

Districts	Total no. of Case (Share in total case %)	Active Cases	Patients Recovered	Deaths (Share in total death %)
Bokaro	6260 (6)	70	6131	59 (6)
Chatra	1377 (1)	23	1343	11 (1)
Deoghar	3537 (3)	25	3489	23 (2)
Dhanbad	7199 (6)	46	7055	98 (10)
Dumka	1353 (1)	22	1321	10 (1)
Garhwa	2728 (2)	29	2688	11 (1)
Giridih	3397 (3)	6	3377	14 (1)
Godda	2054 (2)	11	2033	10 (1)
Gumla	2226 (2)	20	2203	3 (0)
Hazaribagh	4267 (4)	61	4172	34 (3)
Jamtara	1217 (1)	9	1204	4 (0)
Khunti	2066 (2)	15	2046	5 (1)
Koderma	3375 (3)	23	3324	28 (3)
Latehar	1858 (2)	27	1825	6 (1)
Lohardaga	1738 (2)	35	1693	10 (1)
Pakur	900 (1)	4	894	2(0)
Palamu	3358 (3)	34	3305	19 (2)
Pashchimi Singhbhum	4708 (4)	23	4647	38 (4)
Purbi Singhbhum	17401 (16)	175	16871	355 (36)
Ramgarh	4300 (4)	29	4244	27 (3)
Ranchi	28944 (26)	783	27955	206 (21)
Sahibganj	1612 (1)	27	1576	9 (1)
Saraikela-Kharsawan	3640 (3)	64	3564	12 (1)
Simdega	1995 (2)	10	1980	5 (1)
Jharkhand	111510	1571	108940	999

*Source: Jharkhand Government Portal*

Since then the total number of cases has increased to 111510, with 999 reported deaths. The district of Ranchi has reported the highest percentage i.e. 26 per cent in the total number of cases followed by Purbi Singhbhum which reported 16 per cent. Purbi Singhbhum reported the highest percentage in total number of deaths, that is, 36 per cent, while Ranchi was the second highest at 21 per cent. The total number of active cases as on December 14th, 2020 was 1571.

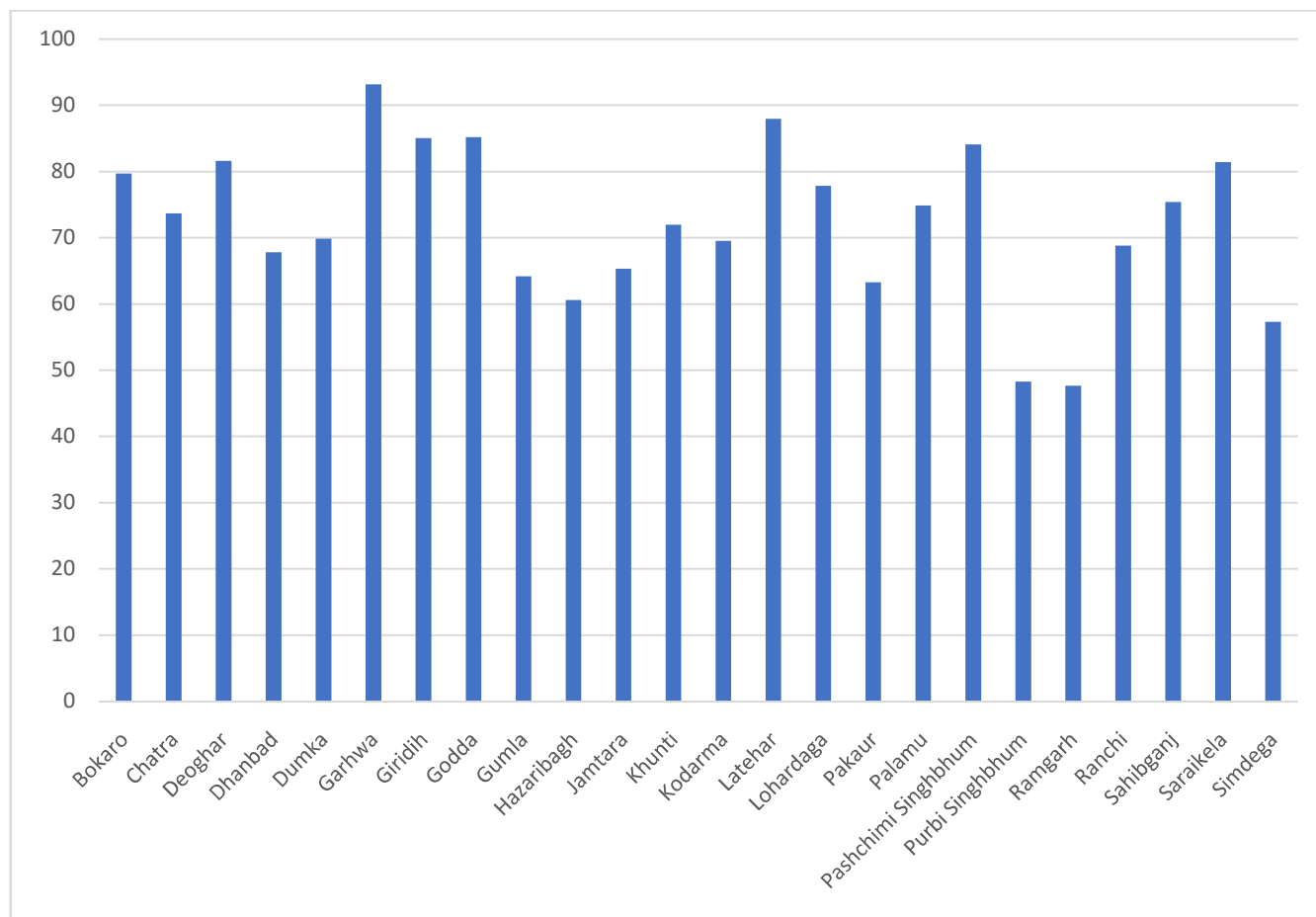
## Maternal and Child Health

### Maternal Health

The most important priority of the state is to improve the maternal and child-health status. As mentioned above, Jharkhand continues to contribute significantly in maternal and child-mortality. Encouraging institutional deliveries is vital for reducing maternal and child-mortality. The launch of Janani Suraksha Yojana in 2005 by the central government under the National Health Mission was an initiative to improve this indicator. The scheme which envisioned reduction of maternal and child mortality by promoting institutional delivery, provided financial incentive to the mother and ASHA workers for delivering children in a health institution. The scheme has a special focus on

Low Performing States i.e. the states that have low institutional delivery rates, and the cash entitlement varies across the Low Performing States and High Performing States for the pregnant women and ASHA workers. Figure 7 shows the district-wise coverage of institutional deliveries under Janani Suraksha Yojana. All the districts have performed well in promoting institutional deliveries in the state except for Purbi Singhbhum and Ramgarh which have reported below 50 per cent of coverage.

**Figure 12.7: District-wise percentage coverage of institutional deliveries under Janani Suraksha Yojana 2020-21 (up to September 2020)**



Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

On disaggregating institutional delivery across hospital-types (Table 12.4), we find that public hospitals are preferred in the rural areas over private hospitals; while in the urban areas, there is a slight difference in the proportion of those who opted for public hospitals as compared to those who opted for private hospitals.

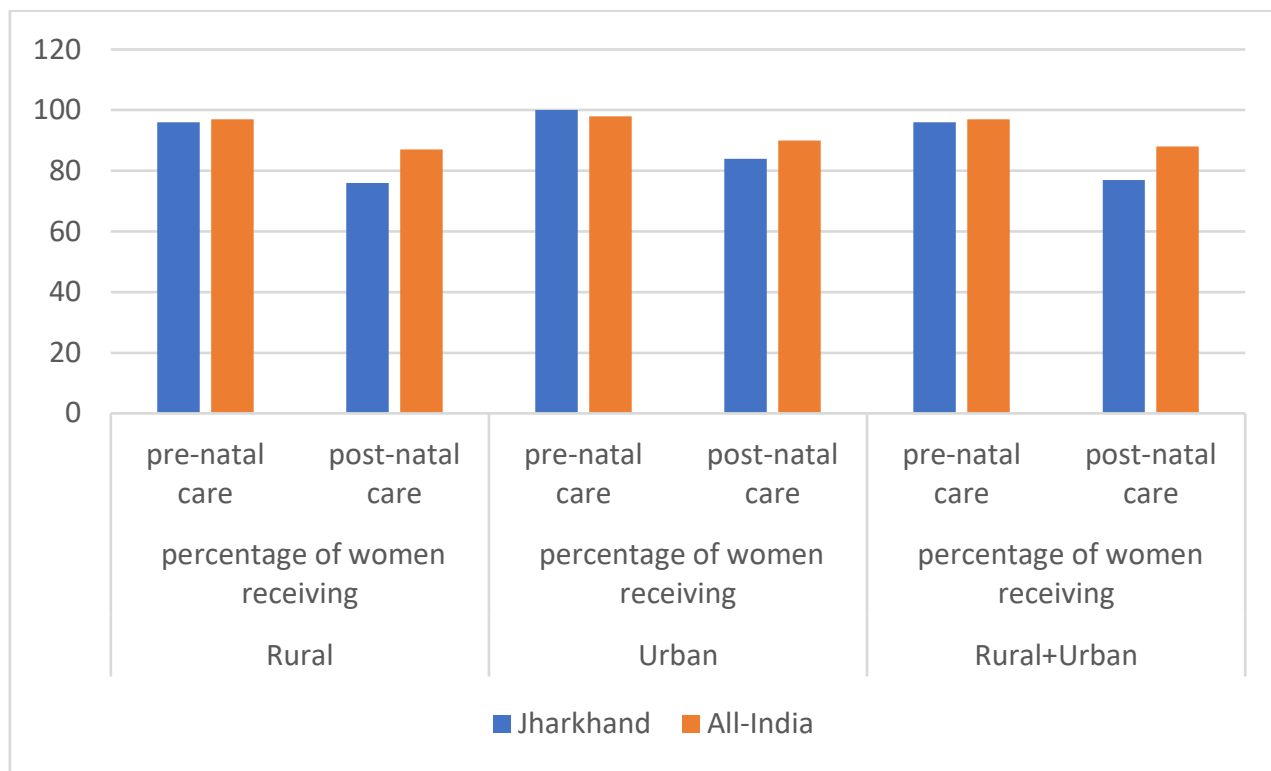
**Table 12.4: Percentage distribution of institutional childbirths by the type of hospital**

State/India	Rural		Urban	
	Public hospital	Private hospital	Public hospital	Private hospital
Jharkhand	65.1	11.9	48.4	44.1
India	69.2	21.3	48.3	47.8

Source: NSS Report no. 586: Health in India, 2019

Another maternal indicator which has significant bearing on the health of the mother and child is pre and post-natal care. Evidently a higher proportion of women received pre-natal care in the state, however, the figure for post-natal care indicates that relatively less importance is given to post-natal care.

**Figure 12.8: Percentage of pregnant women (aged 15-49 pregnant any time during the last 365 days) receiving pre-natal and post-natal care**



Source: NSS Report no. 586: Health in India, 2019

**Child Health**

One of the key targets of the SDG is reducing child-mortality. The proposed target is to reduce neonatal mortality-rate (NMR) to at least as low as 12 deaths per 1,000 live births and U5MR to at least as low as 25 deaths per 1,000 live births by 2030. The U5MR during the period 2016-20 was reported to have been 45 per 1000 live births which was marginally lower than the national average (see Table 12.1). The problem of malnutrition is one of the greatest challenges from which the state suffers, as it is one of the most critical factors influencing the survival and development of infants. Thus, investing for the reduction of child-malnutrition is of paramount importance for the progress of human and economic development of the state.

The Comprehensive National Nutrition Survey (CNNS) conducted in the state during March 2017 to July 2017, covering children and adolescents in the 0-19 years’ age-group, provided estimates of children-under-nutrition. The three anthropometric measures of under-nutrition i.e. stunting or height-for-age, wasting or weight-for-height and underweight or weight-for-age, indicate the status of under-nourishment in the state. Based on the sample data collected by CNNS, 36 per cent of the children under 5 years were reported to be stunted, while 29 per cent were wasted and 43 per cent were underweight. The indicators further reveal that a higher proportion of female children were under-nourished as compared to male children. Also, comparatively children in rural areas were more under-nourished than their urban counterparts.

**Table 12.5: Key Anthropometric Indicators of children under 5 years (%)**

Indicators	Males	Females	Urban	Rural	Total
Stunted	35.4	37.3	23.6	38.3	36.2
Wasted	29.1	29.1	22.1	30.2	29.1
Underweight	39.6	47.4	30	45	42.9

Source: Comprehensive National Nutrition Survey, Jharkhand Factsheet, 2017

**Table 12.6: Anaemia levels among children up to 19 years (%)**

Indicators	Children aged 1-4 years	Children aged 5-9 years	Children aged 10-19 years
Prevalence of anaemia	43.8 (38.5-49.2)	34.4 (27.2-42.4)	34.0 (29.1-39.2)
Prevalence of anaemia-Males	42.9 (36.8-49.2)	31.8 (26.2-38.1)	16.3 (10.4-24.8)
Prevalence of anaemia-Females	45.3 (37.7-53.1)	37.1 (25.0-51.1)	51.7 (43.7-59.7)

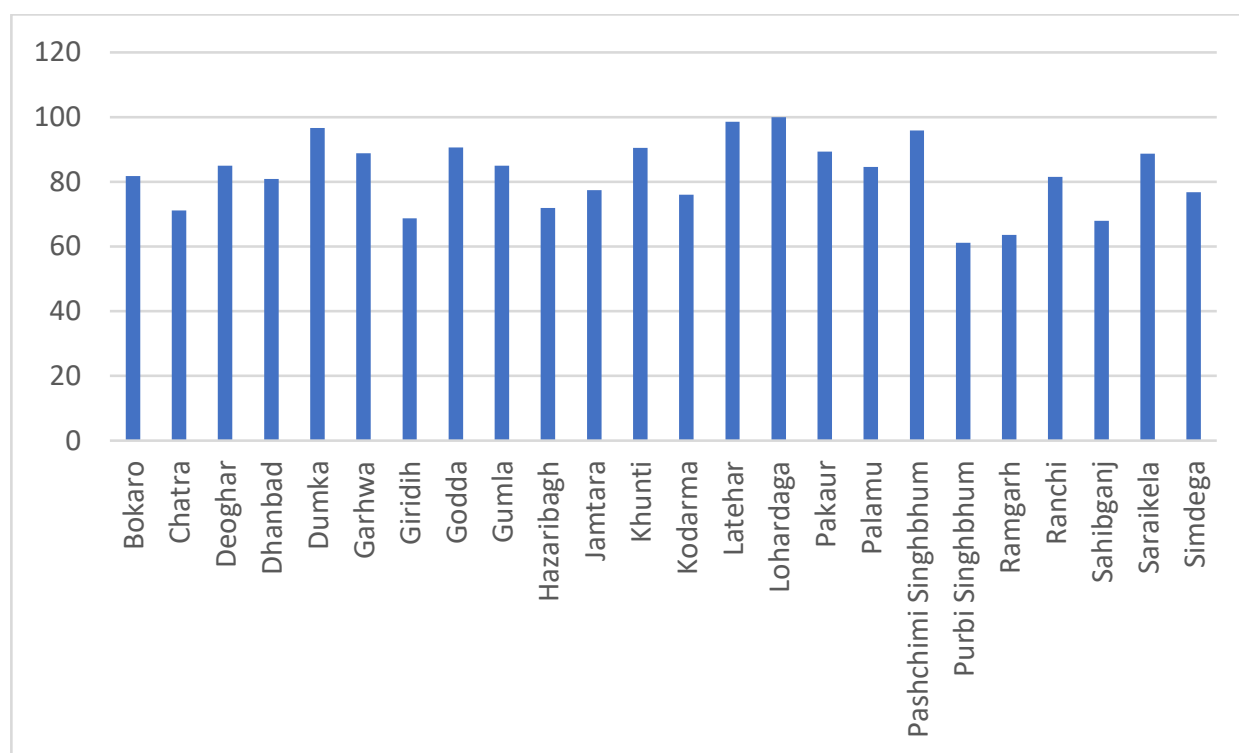
*\*Confidence intervals in brackets*

*Source: Comprehensive National Nutrition Survey, Jharkhand Factsheet, 2017*

A widespread prevalence of anaemia is another public health-challenge in the state. The effects of anaemia or iron deficiency are commonly found among children and pregnant mothers. Around 44 per cent of children in the age-group 1-4 years were found anaemic. Evidently, a higher proportion of female children in this age group were anaemic i.e. 45 per cent. A significant proportion of adolescent children i.e. in the age group of 10-19 were also found to be anaemic. Notably 51 per cent of female adolescent girls were anaemic who would later become anaemic mothers.

Immunization is one of the cost-effective measures to prevent children from fatalities arising due to deadly diseases and viruses. Despite the country having one of the biggest immunization programmes, many children continue to die due to vaccine-preventable diseases such as diphtheria, measles, neonatal tetanus etc. Jharkhand is one of the states which does not have 100 per cent immunization-coverage. The recent estimates indicate that the proportion of children in the age group 9-11 months who are fully immunized is 81 per cent. However, the coverage of immunization varies across the districts of the state. The figure below shows the district-wise coverage of immunization for children in the age group of 9-11 months. Districts like Chatra, Giridih, Hazribagh, Jamtara, Kodarma, Purbi Singhbhum, Ramgarh and Sahibganj have coverage below the state-average.

**Figure 12.9: District-wise percentage of children fully immunized (9-11 months) (up to September 2020)**



*Source: Health, Health Education and Family Welfare Department, Government of Jharkhand*

### Poshan Abhiyan/State Nutrition Mission

POSHAN Abhiyaan, or National Nutrition Mission, is a flagship programme launched by the Government of India. It aims to improve the nutritional outcome for children, pregnant women and lactating mothers. The Jharkhand State Nutrition Mission (JSNM) is the state government-entity which was launched during the first phase in 2017. The severe acute malnutrition (SAM) is a common phenomenon in the state. Malnutrition Treatment Centres (MTCs) have been established to provide care to children with SAM. The total number of activities performed under the Poshyan Abhiyan until September 2020 was 1,51,320 and the total number of participants was 1,41,83,369.

In 96 functional MTCs the total number of SAM children treated in the FY 2020-21 (April to September) was 1795. Under the scheme, 81 per cent routine-immunization to children in the age group of 0 to 1 year was covered during 2020-21 (April to September). Out of the target for the immunization of 425088 children, 342539 were immunized.

On the National De-worming Day, children in the age group of 1 to 19 years were administered Albendazole tablets to de-worm children biannually within the specified time. Of the total target of 71.41 lakhs, 63.75 lakh children were de-wormed till February 2020.

Under the Jharkhand Matri Shishu Swasthya evum Poshan Maah, children in the age group of 9 months to 5 years, Vitamin A supplements were administered through biannual rounds. Until December 2019, a target of 3336330 was achieved out of 3763447.

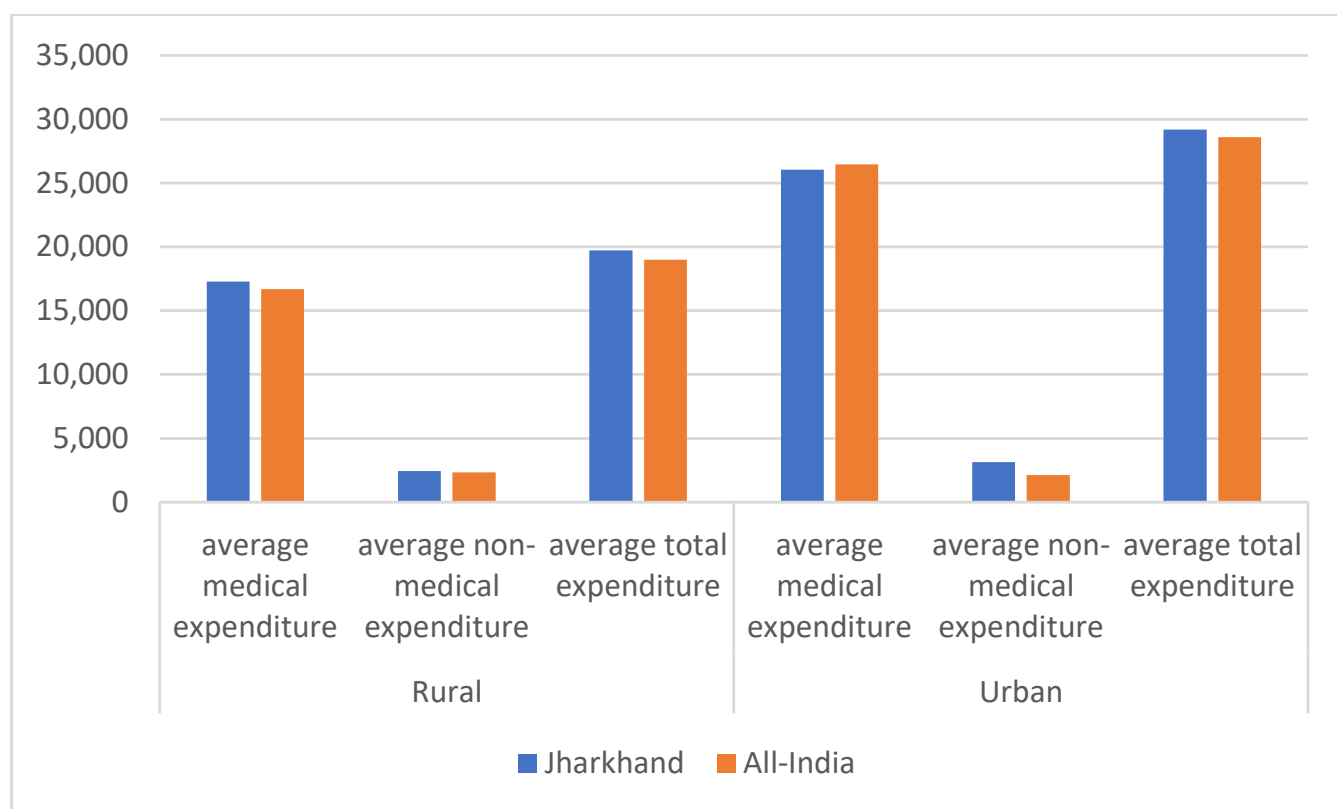
Under the Anemia Mukta Bharat (AMB), various IFA supplements are given to the children of different age-groups like IFA Syrup (6 months to 5 years), IFA Pink tablet (5 to 10 years), IFA Blue tablet (10-19 years) and IFA Red tablet (Pregnant, lactating and WRA age-group women). As of 2020-21 (April to September) distribution of IFA Syrup achieved a target of 282470 out of 3630582, while IFA Pink achieved a target of 969042 out of 3176787.

### Health Expenditure

Health-expenditure covers both public and private expenditure although, there is a burgeoning unregulated private sector in health care due to the poor quality of service provided in the public sector. As a result high healthcare-cost is incurred by households, mostly covered through out-of-expenditure (OOPE). The OOPE in India accounted for 58.7 per cent of the total health-expenditure in 2016-17 as per the latest estimates of National Health Accounts, 2019. Variations in OOPE across states are further gross, with the impact of OOPE higher in the rural areas in poor states like Jharkhand. The estimates further reveal that the total health-expenditure as percentage of GSDP in the state for the period 2016-17 was 3.5 per cent. Moreover, the government spending on health and OOPE on health as a share of the total health-expenditure was 31 per cent and 66 per cent respectively.

One of the Sustainable Development Goals (SDGs) is to achieve Universal Health Coverage (UHC), and financial risk-protection is a key dimension of UHC. Therefore, reducing OOPE payments and the incidence of catastrophe and impoverishments have been the prime objectives as envisioned in the National Health Policy 2017. Designing specific strategies is thus, pertinent to reducing the impoverished and catastrophic effect of OOPE on households.

**Figure 12.10: Average medical expenditure and non-medical expenditure (in Rs.) for IP care (excluding childbirth) during the last 365 days**

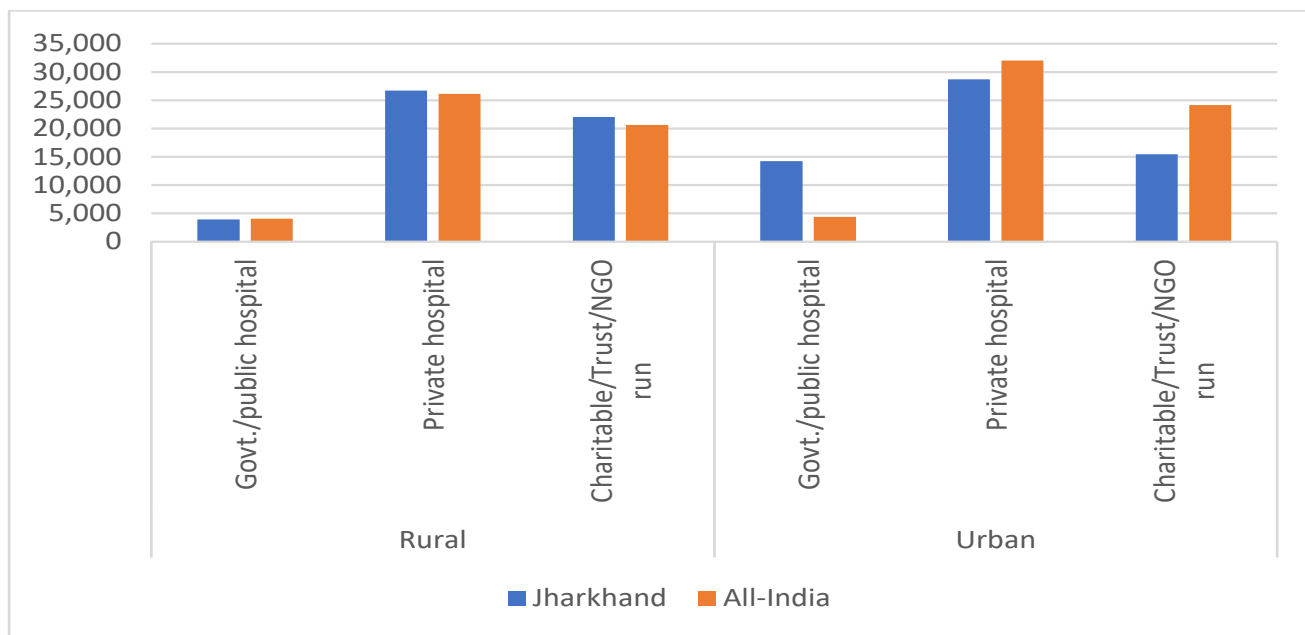


Source: NSS Report no. 586: Health in India, 2019

The average medical expenditure incurred for hospitalization in Jharkhand was significantly higher in the urban areas as compared to the rural areas (Figure 12.10). The average OOPE for IP care was undoubtedly higher in the private hospitals in both the rural and urban areas, followed by charitable/Trust/NGO run hospitals. OOPE for IP care in public hospitals was higher in the urban areas as compared to that in rural areas (Figure 12.11).

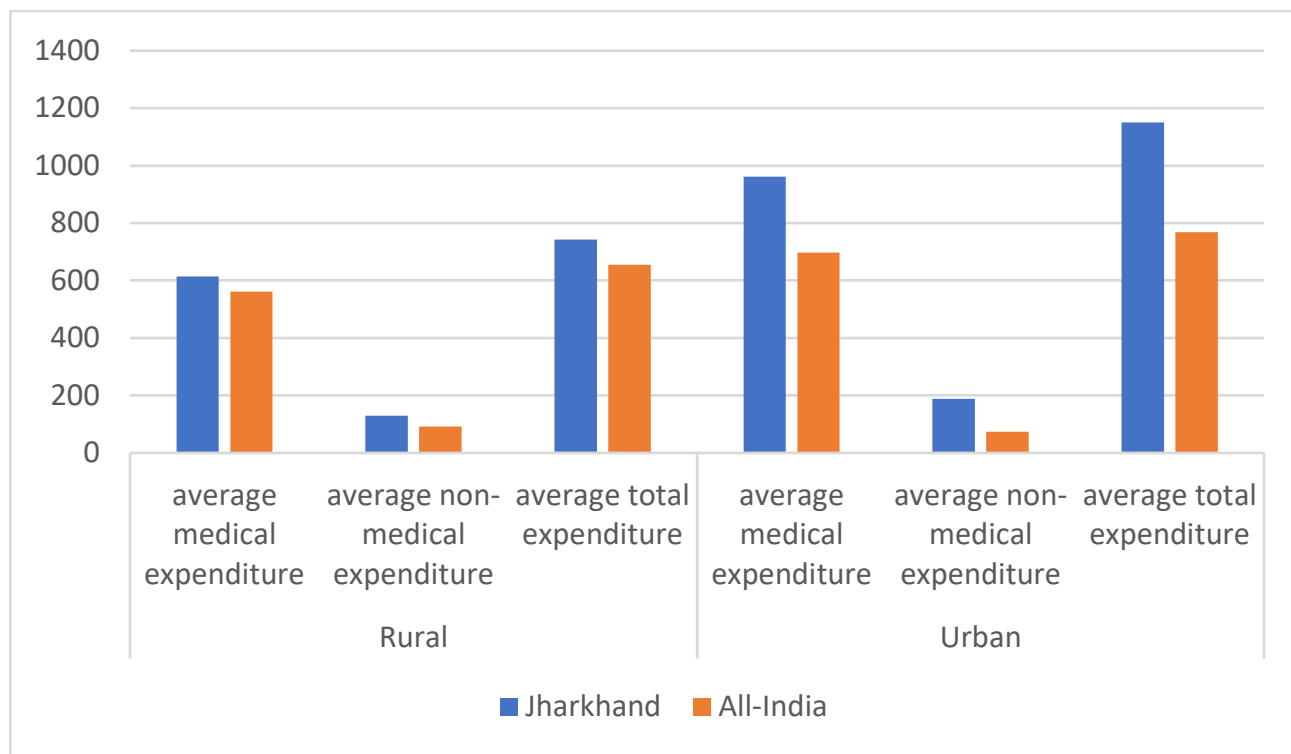


**Figure 12.11: Average out-of-pocket medical expenditure (OOPME) for IP care (excluding childbirth) during the last 365 days**



Source: NSS Report no. 586: Health in India, 2019

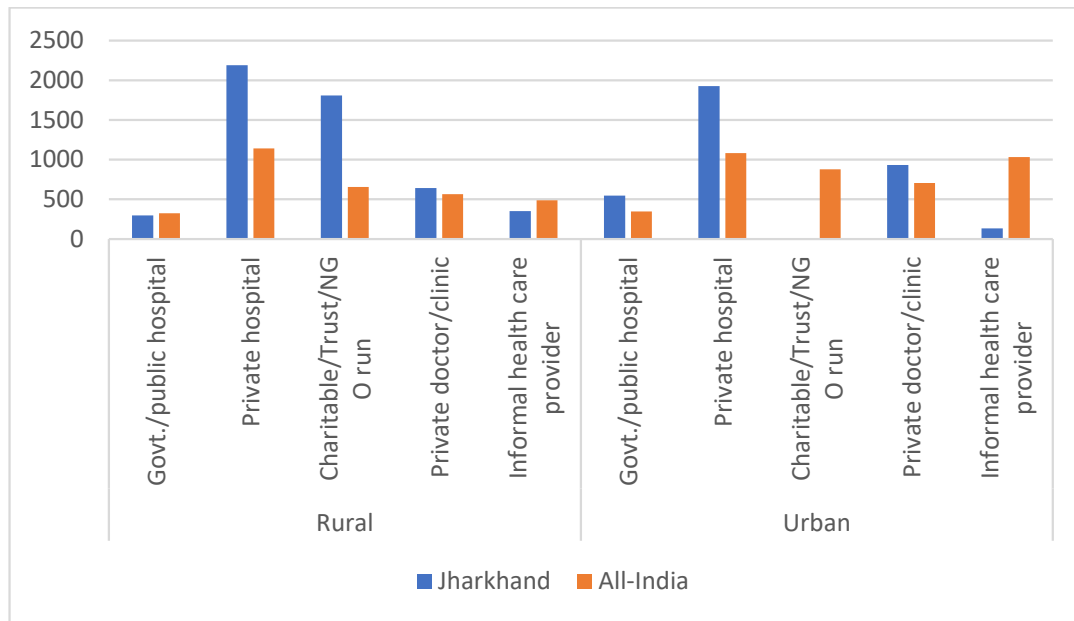
**Figure 12.12: Average medical expenditure and non-medical expenditure (in Rs.) for OP care (during the last 15 days)**



Source: NSS Report no. 586: Health in India, 2019

The average medical expenditure for OP care in the rural areas was lower in comparison to the urban areas, albeit it was higher than the national average in both the rural and the urban areas (Figure 12.12).

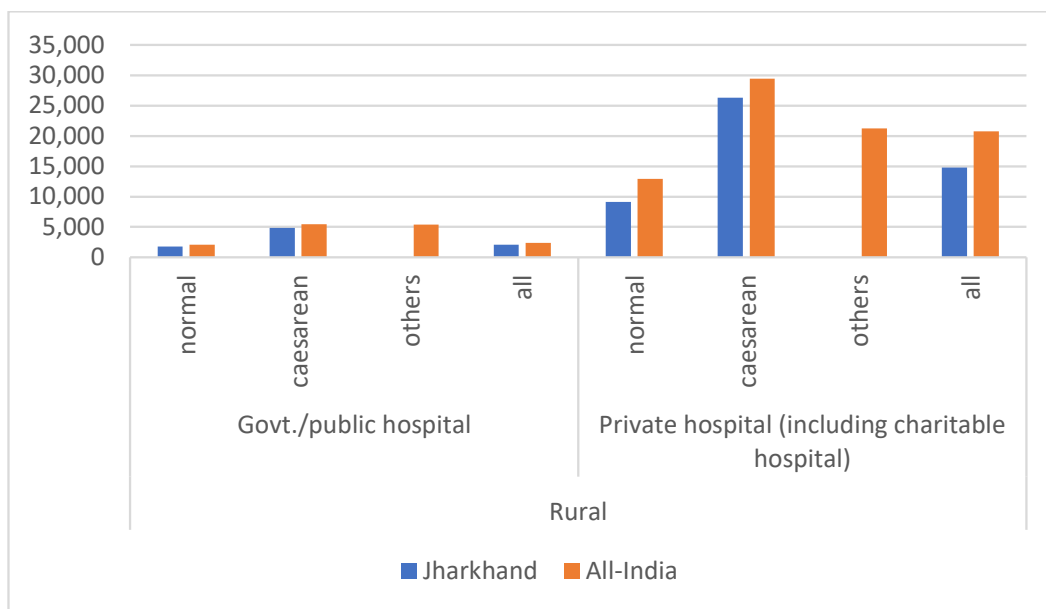
**Figure 12.13: Average out-of-pocket medical expenditure for the (non-hospitalised) for OP care(during the last 15 days)**



Source: NSS Report no. 586: Health in India, 2019

Undoubtedly the expenditure is higher in the private hospitals as compared to any other establishment both in the rural and the urban areas. Not surprisingly a substantial proportion of people also depended on informal OP care providers both in the rural and the urban areas. Patients sought treatment from these informal providers despite the high expenditure incurred in comparison to public hospitals in the urban areas (Figure 12.13).

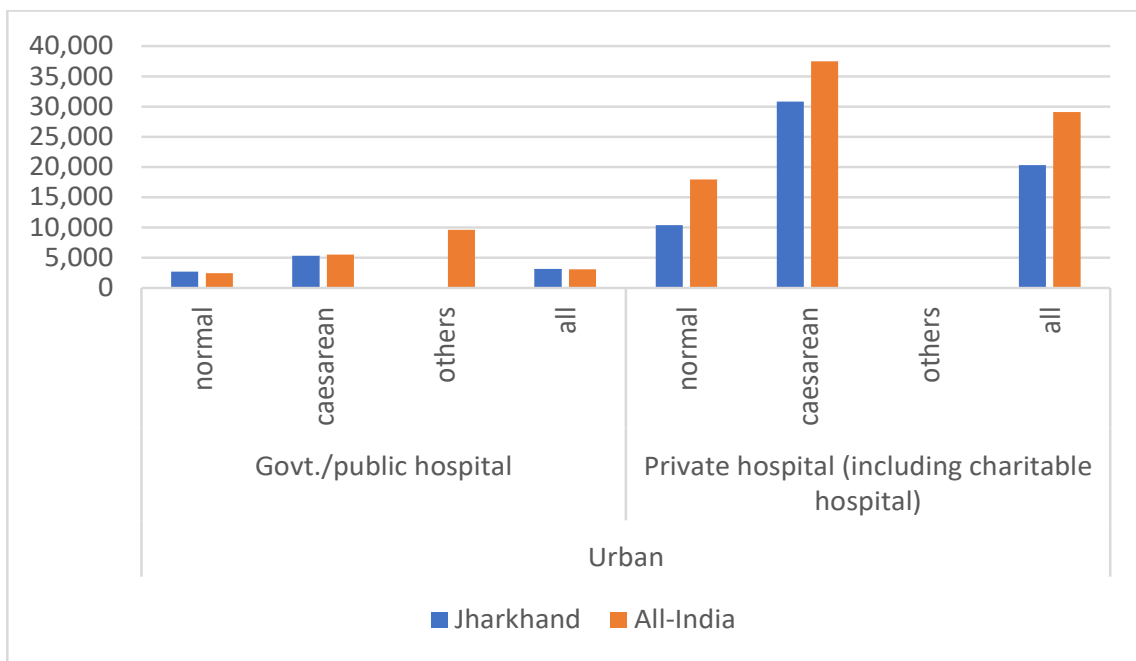
**Figure 12.14 a: Average expenditure per childbirth (excluding abortion cases) in the last 365 days in the rural areas**



Source: NSS Report no. 586: Health in India, 2019

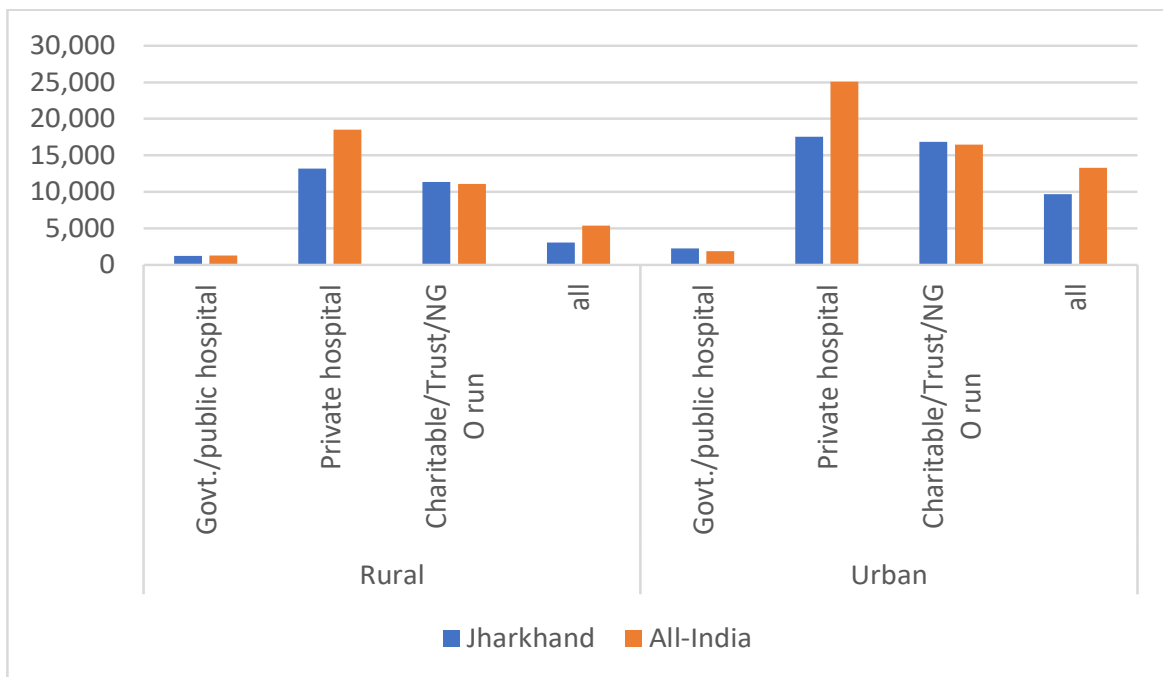
The average expenditure incurred per childbirth was evidently higher in the private hospitals for all kinds of deliveries, both in the rural and the urban areas (Figure 12.14 a & 12.14 b). However, the expenses incurred was greater for caesarean deliveries compared to normal deliveries in the urban and the rural areas.

**Figure 12.14 b: Average expenditure per childbirth (excluding abortion cases) over the last 365 days in the urban areas**



Source: NSS Report no. 586: Health in India, 2019

**Figure 12.15: Average out-of-pocket medical expenditure (OOPME) for institutional child births (last 365 days)**



Source: NSS Report no. 586: Health in India, 2019

Institutional deliveries also account for high OOPE in the state, particularly in the private sector. The OOPE for institutional deliveries was seen to be higher in the urban areas compared to rural areas both in Jharkhand and in India (Figure 12.15).

## Health Insurance

One of the reasons for high OOPE can be attributed to inadequate insurance-coverage for health-care-needs. Data from the NSS 2019 estimates reveals that only 2.2 per cent of the population in urban Jharkhand were covered under any health insurance. Out of these, 1.1 per cent were covered by the govt./ PSU as an employer, 0.5 per cent were covered by the employer supported health protection(other than govt /PSU) and 0.5 per cent arranged by households with insurance companies. There was no coverage of scheme in the rural areas for health-expenditure.

The recently launched health scheme- the Ayushman Bharat-Pradhanmantri Jan Aarogya Yojana (AB-PMJAY) which aims to benefiting 50 crore beneficiaries, intends to reduce the high OOPE and save families from catastrophic health-expenditure. The scheme would provide a health cover of Rs.5 lakhs for families living below the poverty line. The annual premium will be contributed by the centre and the state governments in 60:40 ratio.

**Table 12.7: Total Empanelled hospitals under AB-PMJAY**

District	Total Approved for Empanelment	Total Approved for Empanelment	Total Empanelled (Public and Private)
Bokaro	13	32	45
Chatra	7	6	13
Deoghar	9	26	35
Dhanbad	10	34	44
Dumka	10	6	16
Garhwa	10	36	46
Giridih	12	21	33
Godda	8	16	24
Gumla	11	5	16
Hazaribagh	10	23	33
Jamtara	5	6	11
Khunti	6	5	11
Koderma	6	13	19
Latehar	7	4	11
Lohardaga	5	15	20
Pakur	7	6	13
Palamu	10	38	48
Pashchimi Singhbhum	16	12	28
Purbi Singhbhum	12	27	39
Ramgarh	4	32	36
Ranchi	20	92	112
Sahebganj	7	3	10
Saraikela Kharsawan	8	20	28
Simdega	7	3	10
Jharkhand	220	481	701

*Source: Health, Health Education and Family Welfare Department, government of Jharkhand*

A list of hospitals, both public and private, is empanelled under the scheme. Altogether, there are 22,796 hospitals empanelled in the country. The table above provides district-wise empanelled hospitals in the state. In Jharkhand, 220 public and 481 private hospitals are empanelled.

**Table 12.8: Claim Submitted and Claim Paid- (2019-20)**

Patient District	No. of Claims Submitted	Amount of Claims Submitted	No. of Claims Paid	Amount of Claims Paid
Bokaro	19822	219114598	18348	184702078
Chatra	7146	79069499	6770	71587908
Deoghar	13040	155773650	12066	139695958
Dhanbad	26635	261343162	25204	235020084
Dumka	10096	108941788	9391	97006094
Garhwa	30935	259610274	23488	180224009
Giridih	21441	278715903	20146	246977021
Godda	19466	238577281	18687	214273885
Gumla	7916	72398816	7580	63043027
Hazaribagh	21651	224890015	20509	201583481
Jamtara	7710	76578511	7339	69288228
Khunti	3345	35293579	3049	29837847
Koderma	5217	62450943	4948	56994921
Latehar	6208	58274011	5844	51118588
Lohardaga	10107	89230361	9368	77731577
Pakur	5528	52084033	5330	48331365
Palamu	21984	237574598	19094	198818051
Pashchimi Singhbhum	19368	158692183	18618	143730176
Purbi Singhbhum	41503	284519670	36613	250464243
Ramgarh	10965	116468879	10137	102488870
Ranchi	48826	437777428	45813	395663417
Sahebganj	6368	64922189	6132	61383059
Saraikela Kharsawan	25692	192088331	22736	165405595
Simdega	6741	42631199	6471	37845335
Jharkhand	397710	3807020901	363681	3323214817

*Source: Health, Health Education and Family Welfare Department, Government of Jharkhand*

Altogether 3,97,710 claims have been submitted under the scheme, of which 3,63,681 have been paid. The highest number of claims were submitted in Ranchi (48826) followed by Purbi Singhbhum (41503).

### **Health Infrastructure and Manpower**

Strengthening the health system of the state is paramount to achieve improving results and for achieving various health goals. The two essential pillars of a health system are health-manpower and health-infrastructure. An inadequate number of either of the components obstructs the functioning of the health-system thereby making it inefficient.

### **Health Infrastructure**

The state has 4472 public health intuitions functioning across 24 districts. There are 23 district hospitals with 3493 beds and 13 sub-divisional hospitals with 630 beds.

**Table 12.9: District-wise health-infrastructure in Jharkhand**

District	DH	SDH	CHC		PHC		HSC	U-CHC	U-PHC	Medical College	RIN-PAS
	No.	No.	6 Beds	30 Beds	2 Beds	6 Beds	No.	No.	No.	No.	No.
Bokaro	1	3	3	5	1	15	115		4		
Chatra	1	0	3	3	9	2	93		1		
Deoghar	1	1	0	7	0	7	180		3		
Dhanbad	0	0	4	4	19	9	140	2	8	1	
Dumka	1	0	5	5	22	13	248		1		
Garhwa	1	1	4	3	7	5	117		1		
Giridih	1	0	8	4	8	7	179		2		
Godda	1	0	4	3	5	5	181		1		
Gumla	1	0	7	4	9	4	243		1		
Hazaribagh	1	1	7	3	8	6	140		3		
Jamtara	1	0	1	2	10	5	129		0		
Khunti	1	0	5	1	3	1	108		1		
Koderma	1	0	2	2	1	5	65		2		
Latehar	1	0	6	1	7	3	97		0		
Lohardaga	1	0	2	3	7	3	74		1		
Pakaur	1	1	0	6	0	9	121		1		
Palamu	1	1	6	2	16	5	171		2		
Pashchimi Singhbhum	1	1	0	10	13	5	343		2		
Purbi Singhbhum	1	1	9	6	8	7	243	2	9	1	
Ramgarh	1	0	3	1	4	1	54		3		
Ranchi	1	1	5	8	19	8	324	2	8	1	1
Sahebganj	1	1	1	5	5	5	136		2		
Saraikela	1	1	4	4	5	7	192		3		
Simdega	1	0	4	3	4	3	155		1		
Jharkhand	23	13	93	95	190	140	3848	6	60	3	1

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

Two categories of CHCs and PHCs function in the state. There are 6 bedded and 30 bedded CHCs and 2 bedded and 6 bedded PHCs. In total there are 188 CHCs, 330 PHCs and 3848 HSCs functioning in the state. The state also has three medical colleges each in Dhanbad, Purbi Singhbhum and Ranchi and a medical institute in Ranchi.

**Table 12.10: District-wise density of health-care facilities (Per 100000 population)**

District	Density (Per 100000 population)
Bokaro	6
Chatra	9
Deoghar	12
Dhanbad	5
Dumka	18
Garhwa	9
Giridih	7
Godda	13
Gumla	23
Hazaribagh	8
Jamtara	17
Khunti	18
Koderma	12
Latehar	14
Lohardaga	16
Pakaur	14
Palamu	9
Pashchimi Singhbhum	22
Purbi Singhbhum	10
Ramgarh	5
Ranchi	11
Sahebganj	11
Saraikela	18
Simdega	24
Jharkhand	11

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

The density of total health-care facilities in the state was only 11 per 100000 population. Simdega has the highest density of health-care facility followed by Gumla. The stark inequality across the distribution of health-care facilities across the districts is a matter of concern.

### Health Manpower

The table below shows the status of ANMs and staff nurses across various health-care facilities. The total number of ANMs currently working in these facilities is merely 9676 out of the 14474 positions approved or advertised. There is a shortage of 4798 ANMs across the state.

**Table 12.11: District-wise status of ANMs and staff nurses in healthcare facilities (as of 27 Oct 2020)**

District	ANMs				Staff Nurse			
	Approved/Advertised Positions	Working	Vacancies	Density (Per 10000 population)	Approved/Advertised Positions	Working	Vacancies	Density (Per 10000 population)
Bokaro	496	275	221	0.8	112	66	46	0.2
Chatra	516	315	201	1.7	105	51	54	0.5
Deoghar	614	338	276	1.6	65	21	44	0.3
Dhanbad	584	341	243	0.7	107	45	62	0.2
Dumka	785	647	138	0.8	105	57	48	0.3

District	ANMs				Staff Nurse			
	Approved/ Advertised Positions	Working	Vacancies	Density (Per 10000 population)	Approved/ Advertised Positions	Working	Vacancies	Density (Per 10000 population)
Garhwa	523	368	155	1.0	114	35	79	0.5
Giridih	549	312	237	0.8	99	38	61	0.2
Godda	789	614	175	1.2	97	29	68	0.4
Gumla	684	398	286	2.5	114	74	40	0.3
Hazaribagh	641	512	129	0.6	105	66	39	0.2
Jamtara	554	362	192	2.2	88	33	55	0.6
Khunti	499	289	210	3.2	80	44	36	0.5
Koderma	447	245	202	3.0	97	54	43	0.6
Latehar	457	351	106	1.3	95	52	43	0.5
Lohardaga	658	411	247	4.4	88	44	44	0.8
Pakur	541	321	220	2.2	94	33	61	0.6
Palamu	524	341	183	0.8	89	66	23	0.1
Pashchimi Singhbhum	531	416	115	0.7	112	81	31	0.2
Purbi Singhbhum	852	485	367	1.2	145	89	56	0.2
Ramgarh	412	254	158	1.3	77	22	55	0.4
Ranchi	898	741	157	0.4	187	89	98	0.3
Sahebganj	654	487	167	1.2	77	27	50	0.4
Saraikela	698	564	134	1.1	86	34	52	0.4
Simdega	568	289	279	3.9	69	23	46	0.6
Jharkhand	14474	9676	4798	1.2	2407	1173	1234	0.3

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

Likewise, the number of staff nurses employed across the healthcare facilities in the state is 1173 out of 2407 positions approved or advertised. The total ANM and nurse-density (per 10000 population) were 1.2 and 0.3 respectively. Moreover, there was huge disparity in the distribution of health-worker-density in the districts. These two cadres of workers are the most essential for the functioning of the healthcare facilities in the lower level facilities such as Health Sub Centres (HSC) and Primary Health Centres (PHCs). Most of the activities are carried out by the ANMs and staff nurses.

**Table 12.12: District-wise status of Medical Officers and Senior Medical Officers in health care facilities (as on October, 27, 2020)**

District	Medical Officers				Senior Medical Officers			
	Approved/ Advertised	Working	Vacancies	Density (Per 10000 population)	Approved/ Advertised	Working	Vacancies	Density (Per 10000 population)
Bokaro	123	96	27	0.1	17	9	8	0.0
Chatra	84	55	29	0.2	28	9	19	0.2
Deoghar	74	59	15	0.1	27	18	9	0.1
Dhanbad	145	132	13	0.0	47	29	18	0.1
Dumka	89	72	17	0.1	31	5	26	0.2
Garhwa	77	61	16	0.1	25	6	19	0.1
Giridih	67	43	24	0.1	29	9	20	0.1
Godda	78	54	24	0.2	34	8	26	0.2



District	Medical Officers				Senior Medical Officers			
	Approved/ Advertised	Working	Vacancies	Density (Per 10000 population)	Approved/ Advertised	Working	Vacancies	Density (Per 10000 population)
Gumla	86	75	11	0.1	36	12	24	0.2
Hazaribagh	88	74	14	0.1	45	29	16	0.1
Jamtara	127	92	35	0.4	46	14	32	0.4
Khunti	85	67	18	0.3	41	11	30	0.5
Koderma	79	61	18	0.3	54	15	39	0.6
Latehar	99	77	22	0.3	56	11	45	0.5
Lohardaga	86	74	12	0.2	58	6	52	0.9
Pakur	89	62	27	0.3	59	5	54	0.5
Palamu	72	57	15	0.1	56	14	42	0.2
Pashchimi Singhbhum	83	59	24	0.1	55	22	33	0.2
Purbi Singhbhum	87	52	35	0.1	88	54	34	0.1
Ramgarh	65	47	18	0.1	58	13	45	0.4
Ranchi	197	184	13	0.0	135	49	86	0.2
Sahebganj	77	41	36	0.3	63	14	49	0.4
Saraikela	86	74	12	0.1	54	18	36	0.3
Simdega	81	42	39	0.5	59	23	36	0.5
Jharkhand	2224	1710	514	0.1	1201	403	798	0.2

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

There are only 1710 medical officers in all with 403 senior medical officers in the state. The number of vacant positions indicates the shortage of manpower which health facilities face to meet the health-requirements of the population. Inequality in the geographical distribution of manpower further worsens the situation. Evidently, it is less than 1 MO or SMO per 10000 population.

**Table 12.13: District-wise total health-worker density (Per 10000 population)**

District	Total HR density (Per 10000 population)
Bokaro	1.1
Chatra	2.6
Deoghar	2.0
Dhanbad	1.0
Dumka	1.4
Garhwa	1.7
Giridih	1.2
Godda	1.9
Gumla	3.1
Hazaribagh	0.9
Jamtara	3.5
Khunti	4.5
Koderma	4.5
Latehar	2.6
Lohardaga	6.4
Pakur	3.7
Palamu	1.2
Pashchimi Singhbhum	1.2
Purbi Singhbhum	1.6

District	Total HR density (Per 10000 population)
Ramgarh	2.2
Ranchi	1.0
Sahebganj	2.2
Saraikela	1.9
Simdega	5.5
Jharkhand	1.9

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

The total human-resource density, which includes ANMs, staff nurses, medical officers and senior medical officers, is 1.9 per 10000 population in the state which is depressingly low. Lohardaga has the highest health-worker-density of 6.4 per 10000 population followed by Simdega (5.5 per 10000 population).

**Table 12.14: District-wise number of ASHAs (as of 27 Oct 2020)**

District	Total number of ASHAs
Bokaro	1420
Chatra	1609
Deoghar	2562
Dhanbad	2105
Dumka	2623
Garhwa	1218
Giridih	2456
Godda	1669
Gumla	1617
Hazaribagh	2519
Jamtara	1599
Khunti	840
Koderma	755
Latehar	1212
Lohardaga	491
Pakur	1135
Palamu	2176
Pashchimi Singhbhum	2019
Purbi Singhbhum	2188
Ramgarh	1226
Ranchi	2454
Sahebganj	1582
Saraikela	1725
Simdega	764
Jharkhand	39964

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

Accredited Social Health Activists (ASHAs) play a fundamental role in improving maternal and child-health-status of the state. These community health workers or ASHAs form the backbone of the health system in rural India. Reduction in child and maternal mortality, increase in pre and post-natal care, safe deliveries and increased coverage of immunization rates could be attributed to the regular efforts of ASHAs in the state. There are 39964 ASHAs currently working towards improving the maternal and child-health-status in rural areas of the state.

**Health Finance**

The total budget allocated for health in the FY 2020-21 was Rs 162757.6 lakh, of which Rs 37306.604 lakh was utilized (i.e. only 23 per cent of total allocation) upto September 2020. Only 41 per cent of the total budget was utilized in the last financial year i.e. 2019-20. Two components, IDSP and health care of the elderly reported overutilization of the budget while the remaining components had not even utilized 50 per cent of their sanctioned budget until September 2020. The human resource component utilized only 30 per cent of the budget, while for immunization only 19 per cent of the budget was utilized.

**Table 12.15: Budget and Expenditure details of the state**

Expenditure Status April to September 2020				
Rs in Lakhs				
Code	Heads	Budget	Expenditure	% of Expenditure
A	REPRODUCTIVE AND CHILD HEALTH	34871.7	7877.68942	22.59%
A.1	MATERNAL HEALTH	15043.99	4205.34791	27.95%
A.2	CHILD HEALTH	1033.6	208.27434	20.15%
A.3	FAMILY PLANNING	4162.48	962.72345	23.13%
A.4	ADOLESCENT HEALTH / RKSK (Rashtriya Kishore Swasthya Karyakram)	683.76	36.18028	5.29%
A.5	RBSK	714.96	94.52511	13.22%
A.6	TRIBAL RCH	0	0.04053	
A.7	PNDT Activities	26.75	0.21	0.79%
A.9	TRAINING	2735.93	102.45229	3.74%
A.10	PROGRAMME MANAGEMENT	10470.23	2267.93551	21.66%
B	Additionalities under NRHM (Mission Flexible Pool)	99535.68	25576.3319	25.70%
B1	ASHA	17913.5	5921.99235	33.06%
B2	Untied Funds/Annual Maintenance Grants /Corpus Grants to HMS/RKS	3867.6	714.720276	18.48%
B3	Rollout of B.Sc. ( Community Health)	1551.78	40.66844	2.62%
B4	Hospital Strengthening	4436	947.43807	21.36%
B5	New Constructions	6053.75	75.33681	1.24%
B.6	Implementation of Clinical Establishment act	5.37	0.78731	14.66%
B.7	District action Plan	0	0.01875	
B.8	Panchayati Raj Initiative	50.64	0.43675	0.86%
B.9	Mainstreaming of AYUSH	10.76	1.49225	13.87%
B.10	IEC-BCC NRHM	2336.1	170.00169	7.28%
B.11	National Mobile Medical Vans (smaller vehicles) and specialised Mobile Medical Units	2826.2	566.77801	20.05%
B.12	National Ambulance Service	5911.4	1951.31507	33.01%
B.13	PPP/NGO	202.08	100.06577	49.52%
B.14	Innovation	350	30.03731	8.58%
B.15	Planning, Implementation and Monitoring	3464.48	599.57988	17.31%
B.16	PROCUREMENT	17389.01	1675.59346	9.64%
B.17	Drug Ware Housing	202.24	11.99898	5.93%
B.18	New Initiatives/ Strategic Interventions (As per State health policy)	1422.42	6.045	0.42%
B.20	Research, Studies and Analysis	200	0	0.00%
B.21	SHSRC	0	0.01	
B.23	Other expenditures	45.6	2.67172	5.86%
B.25	National Programme for Prevention and control of deafness (NPPCD)	45.6	0	0.00%

Expenditure Status April to September 2020				
Rs in Lakhs				
Code	Heads	Budget	Expenditure	% of Expenditure
18	Any Other Innovations	146.45	49.81294	34.01%
B.26	NATIONAL ORAL HEALTH PROGRAMME (NOHP)	12	0	0.00%
B.27	National Programme for Palliative Care (New Initiatives under NCD)	0	1.25247	
B.28	Assistance to State for Capacity building (Burn and Injury)	0	0	
B.29	National Programme for Fluorosis(NPPCF)	45.5	97.1392	213.49%
B.30	Human Resource	31032.95	9324.01272	30.05%
B.31	COVID 19	0	3277.34853	
C	IMMUNISATION	3980.72	770.846268	19.36%
D	NIDDCP	79.47	10.1	12.71%
II	NUHM	3786.929	417.76086	11.03%
E	IDSP	36	38.06	105.72%
F	NVBDCP	1766.35	579.153556	32.79%
G	NLEP	434.59	90.619405	20.85%
H	RNTCP	5714.92	1129.53052	19.76%
K	Health care of the Elderly	13.23	13.65	103.17%
I	National Programme for Control of Blindness (NPCB)	1725	731.61	42.41%
J	National Mental Health Programme (NMHP)	15.67	0	0.00%
M	National Tobacco Control Programme	222.76	20.20526	9.07%
N	NVHCP	1659.38	0	0.00%
O	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)	393.24	51.0468	12.98%
	IM	8522		0.00%
	Grand Total	162757.6	37306.604	22.92%

Source: Health, Health Education and Family Welfare Department, Government of Jharkhand

## Conclusion

Improving health-indicators is of utmost significance for the state to enable the achievement of the health-goals of the nation. Undoubtedly the state has made significant improvements in various health indicators in comparison to the national average; however, there are certain areas where it continues to lag behind. There are a few districts where institutional deliveries are below 50 per cent. Institutional deliveries play a very significant role in reducing maternal and child-mortality. Similarly, many districts are yet to achieve a 100 per cent immunization among children in the age-group of 9-11 months. Another area of concern is the high out-of-pocket expenditure in the state. Around 66 per cent of the total health-expenditure is out-of-pocket. Inefficient public-health-facilities, which continue to suffer from poor infrastructure and inadequate manpower increase the dependency on the private sector, which is covered from household savings and by borrowing in the absence of health-coverage schemes. The recently launched health insurance scheme is one of the initiatives to reduce the high out-of-pocket expenditure of households. Further, low allocation and spending on health by the state could be attributed to such catastrophic out-of-pocket expenditure of the households. The state utilized merely 41 per cent of the total health budget during 2019-20. Improving the financial capacity of the state is not only essential for the smooth functioning of the health systems but also for tackling the sudden challenges which arise such as the recent COVID-19 pandemic.

Therefore, timely and effective utilization of the budget, improving leadership and implementation capacity are a few of the administrative challenges which the state requires to overcome for a rapid progress of the health-sector in the state.

## Annexure 12.1

### Out of Pocket Expenditure (OOP)

Disease, besides causing suffering and death, also results in economic losses caused by wage and job loss and additional expenditure on treatment and post-treatment care. Poor health and diseases not only lead to out-of-pocket expenditure for patients and their families (Uplekar et al. 2001) but also undermine the generation of income, and as a result jeopardize economic welfare in the future (Gertler & Gruber 2002). To protect the economic wellbeing of its citizens, the governments of all the countries spend a sizable part of their budget on the creation of medical infrastructure, provision of free or cheap medical facilities to the patients and provision of subsidized insurance coverage to the needy. In the 1990s, health economists put a lot of effort in assessing the impact of user fees on access to health care services especially in developing countries (Gilson 1997). The impact of out-of-payments/expenditure (OOPs) for health care<sup>1</sup> on the wellbeing of the people, however, has received very little attention. Of late, this subject has acquired the attention and interest of both academicians and policymakers. The World Health Organization (WHO)<sup>2</sup> has also shown a keen interest in assessing the significance OOPs. According to it, there is a very strong correlation between the levels of OOPs and the two indicators that are currently used to monitor how well a health system is performing in terms of financial protection: the system of catastrophic and impoverishing health expenditure. This issue has gained interest these days, especially in developing nations, because the technological advancement and penetration of the market in health care in most of these countries have resulted in higher health services fees and costs, causing catastrophic health expenditure. In the US, the incidence of catastrophic health expenditure was recognized as a significant issue many years back. Another reason for this recent focus on OOPs might be the new insights into the consequences of ‘shocks’ on the household economy, as the literature on famine and poverty by Sen and Drèze became more widely known

1. Out of pocket payments (OOPs) or Out of Pocket Expenditures are the direct payments made by individuals to health care providers at the time of service use, including the costs of medicines. This excludes any prepayment for health services, for example in the form of taxes or specific insurance premiums or contributions and reimbursements to the individual who made the payment.

2. [who.int/health\\_financing/topics/financial-protection/out-pocket-payments/en/](http://who.int/health_financing/topics/financial-protection/out-pocket-payments/en/)

(Sen 1981, 1990; Dreze & Sen 1989) and is being applied now to ‘shocks’ other than famine.

The OOP was defined as payments not covered by Medicare, private health insurance (PHI), or any other similar sources. Under the stress and anxiety of disease, some people have no choice but to pay the fees as requested by health providers even if the money is more than they can afford (Russell 1996). Households sometimes have to trade the future welfare of all their members to access health care for one of them, perceived as essential for his/her wellbeing and survival. Thus, future welfare is put at risk by incurring debts, selling off productive assets, or sacrificing investment in future productivity, for example by curtailing children's education (Whitehead et al. 2001). Such coping mechanisms can trigger a vicious circle of impoverishment and more indebtedness (Wilkes et al. 1998); although access to informal networks of social support may prevent this (Morduch 1999; Dercon 2002). There is a growing body of evidence that payments for health care thus can easily become catastrophic health expenditure (Kawabata et al. 2002; Pradhan & Prescott 2002; Ranson 2002), especially when the public health care system is weak or unattractive, and poor people have to make use of private services (Uplekar 2000; Meessen et al. 2003). Such mechanisms are quite universal, but their incidence may vary widely (Xu et al. 2003), as do the individual paths leading from illness to poverty. Collecting more evidence in various situations seems a prerequisite for defining policies to tackle the problem.

A higher burden of households’ OOP payment is often associated with impoverishment and catastrophe and thus here we have measured catastrophe in health spending and impoverishment in Jharkhand, and illustrated them empirically.

### Data

We have used unit level data of the 71st round of survey on social consumption relating to health, conducted by the National Sample Survey Office (NSSO).<sup>3</sup>

### Methodology

#### 1. Catastrophic Health Care Cost

The ethical position of this methodology here is that nobody should spend in excess of a given proportion (let's suppose  $z_{cat}$ ) of their income on medical services. A figure for such a limit level  $z_{cat}$  is definitely self-assertive, and it would plainly rely upon whether income

3. Sampling and non-sampling errors can persist.

is characterized in terms simply of pre-payment,  $x$ , or as far as some proportion of "capacity to pay"  $y=x-D(x)$ , where  $D(x)$  is "derivations" that are permitted in deciding a family's capacity to pay (for example spending on food and other "necessities"). If the 'capacity to-pay approach' is adopted, unmistakably, one necessity is to consider the different issues concerning how  $D(x)$  is to be characterized. In the event that  $D(x)$  is to cover just food consumptions, would it be advisable for it to cover genuine costs or would it be advisable for it to be a flat rate allowance? In the event of the last mentioned, what ought to be finished with people whose pre-payment incomes fall short of allowances? And thus, in our analysis we settled on using  $x$ , and we have decided on various  $z_{cat}$  and have agreed for  $T/x$  above which expenses are to be considered catastrophic. We would so obtain the fraction  $H_{cat}$  of the sample whose expenditures as a proportion of their income exceed the threshold  $z_{cat}$ . This is the catastrophic payment headcount. Thus, let  $O_i$  be the catastrophic 'overshoot', equal to  $T_i/x_i - z_{cat}$  (or  $T_i/y_i - z_{cat}$ ) if  $T_i/x_i > z_{cat}$  and zero otherwise, and let  $E_i = 1$  if  $O_i > 0$ . Then the catastrophic payment headcount is equal to:

$$H_{cat} = 1/N \sum_{i=1}^N E_i = \mu E \sum_{i=1}^N E_i = \mu E$$

Where  $N$  is the sample size and  $E$  is the mean of  $E_i$ .

We measured  $O_i$  by the ratio  $T/x$  (i.e., out-of-pocket payments as a fraction of prepayment income), and set thresholds (i.e.,  $z_{cat}$ ) at 15%, 25%, 50% and 75%.

**Results**

**Table 1: Percentage of households incurring catastrophic payments with respect to total OOP spending using total household expenditure, in Rural Jharkhand, Urban Jharkhand and Jharkhand**

Percentage of households incurring catastrophic payments with respect to total OOP spending using total household expenditure, in Rural Jharkhand, Urban Jharkhand and Jharkhand						
Financial health equity measurements	Rural Jharkhand		Urban Jharkhand		Rural + Urban	
	Incidence	CI (p-value)	Incidence	CI (p-value)	Incidence	CI (p-value)
Total OOP Payments > 15%	50.44	-0.12(0.00)	44.68	-0.13(0.00)	47.84	-0.13(0.00)

**2. Impoverishing Health care cost**

The core idea behind this methodology is that no one should be pushed into poverty because of their health expenses. Let  $z_{pov}^{pre} z_{pov}^{pre}$  be the pre-payment poverty line (which may be different from the post-payment poverty line for reasons discussed below) and  $x_i$  be individual  $i$ 's pre-payment income. Then define  $P_i^{pre} P_i^{pre} = 1$

$$\text{if } x_i = z_{pov}^{pre} z_{pov}^{pre}$$

Then the pre-payment poverty headcount is equal to:

$$H_{pov}^{pre} H_{pov}^{pre} = 1/N \sum_{i=1}^N P_i(Pre) = \mu p(pre)$$

$$\sum_{i=1}^N P_i(Pre) = \mu p(pre)$$

Where,  $N$  is the sample size.

Similarly, the post-payment poverty headcount is equal to:

$$H_{pov}^{post} H_{pov}^{post} = 1/N \sum_{i=1}^N P_i(post) = \mu p(post)$$

$$\sum_{i=1}^N P_i(post) = \mu p(post)$$

The measures of poverty impact of out-of-pocket payments are then simply defined as the difference between the relevant pre-payment and post-payment measures, i.e.

$$PI^H = H_{pov}^{post} H_{pov}^{post} - H_{pov}^{pre} H_{pov}^{pre}$$

Percentage of households incurring catastrophic payments with respect to total OOP spending using total household expenditure, in Rural Jharkhand, Urban Jharkhand and Jharkhand						
Financial health equity measurements	Rural Jharkhand		Urban Jharkhand		Rural + Urban	
	Incidence	CI (p-value)	Incidence	CI (p-value)	Incidence	CI (p-value)
Total OOP Payments> 25%	43.09	-0.16(0.00)	35.90	-0.18(0.00)	39.84	-0.18(0.00)
Total OOP Payments> 50%	36.73	-0.18(0.00)	29.12	-0.21(0.00)	33.29	-0.21(0.00)
Total OOP Payments> 75%	34.76	-0.19(0.00)	26.20	-0.22(0.00)	30.89	-0.22(0.00)

**Table 2: Percentage of households incurring catastrophic payments with respect to medicine OOP spending using total household expenditure, in Rural Jharkhand, Urban Jharkhand and Jharkhand**

Percentage of households incurring catastrophic payments with respect to medicine OOP spending using total household expenditure, in Rural Jharkhand, Urban Jharkhand and Jharkhand						
Financial health equity Measurements	Rural Jharkhand		Urban Jharkhand		Rural + Urban	
	Incidence	CI (p-value)	Incidence	CI (p-value)	Incidence	CI (p-value)
Total OOP Payments> 15%	44.63%	-0.13(0.00)	39.89	-0.13(0.00)	42.49	-0.14(0.00)
Total OOP Payments> 25%	42.67%	-0.14(0.00)	36.57	-0.13(0.00)	39.96	-0.15(0.00)
Total OOP Payments> 50%	41.23%	-0.14(0.00)	35.37	-0.14(0.00)	38.58	-0.15(0.00)
Total OOP Payments> 75%	41.12%	-0.14(0.00)	34.97	-0.13(0.00)	38.34	-0.15(0.00)

**Table 3: Impoverishment indicators due to households' total Out of Pocket expenditure**

Impoverishment indicators due to households' total OOP						
Consumption Expenditure quintile	Rural Jharkhand		Urban Jharkhand		Rural + Urban	
	Incidence	CI (p-value)	Incidence	CI (p-value)	Incidence	CI (p-value)
Poorest 20%	34.94	-0.04(0.49)	33.22	-0.04(0.55)	46.02	-0.12(0.00)

Impoverishment indicators due to households' total OOP						
Consumption Expenditure quintile	Rural Jharkhand		Urban Jharkhand		Rural + Urban	
	2 <sup>nd</sup> Poorest 20%	39.02	-0.10(0.06)	24.64	-0.14(0.10)	40.34
Middle	32.96	-0.04(0.55)	15.42	-0.12(0.30)	29.15	-0.02(0.66)
2 <sup>nd</sup> Richest 20%	25.69	-0.04(0.56)	19.40	-0.03(0.72)	22.73	0.02(0.75)
Richest 20%	28.08	0.15(0.02)	26.84	0.02(0.74)	22.91	0.02(0.76)
All Households	32.13	-0.06(0.04)	23.98	-0.07(0.05)	32.41	-0.17(0.00)

A higher burden of households' OOP payment is often associated with impoverishment and catastrophe. In table 1, we present a set of catastrophic cut-offs measured as a share of OOP payments to total household consumption expenditure and non-food expenditure. Estimates for both total medicine OOP payments by households are presented in Table 2. Over 47% of households in Jharkhand incurred OOP payments at the 15% threshold of total household expenditure in 2014. When comparing Rural and Urban there are more OOP Payments in rural area at all cut-offs- 15%, 25%, 50% and 75%. All the results are significant at 95% Confidence interval. Expenditure on medicine also leads to Catastrophic Out of Pocket expenditure and over 42% of households in Jharkhand incurred medicine OOP payments at the 15% threshold and 38% i.e., more than 1/3rd at the 75% threshold. Rural Jharkhand incurs more catastrophic payment with respect to medicine as compared to Urban Jharkhand.

Also, the rural households' catastrophic health expenditure headcount ratio is greater than those of urban households. In our study, the poverty line of Rural India and Urban India was taken for the year 2013-14. After out-of-pocket payments, 32.41% of non-poor households became poor. As expected, impoverishment from medical expenses was more common in the poorest quintile. Rural households had higher rates of poverty and of impoverishment than urban households (Table 3).

The rate of impoverishment in Rural Jharkhand is higher than in urban areas.

The catastrophic health expenditure headcount ratio varied from 28.08% to 34.94% and from 26.84% to 33.22% for rural and urban households, respectively.

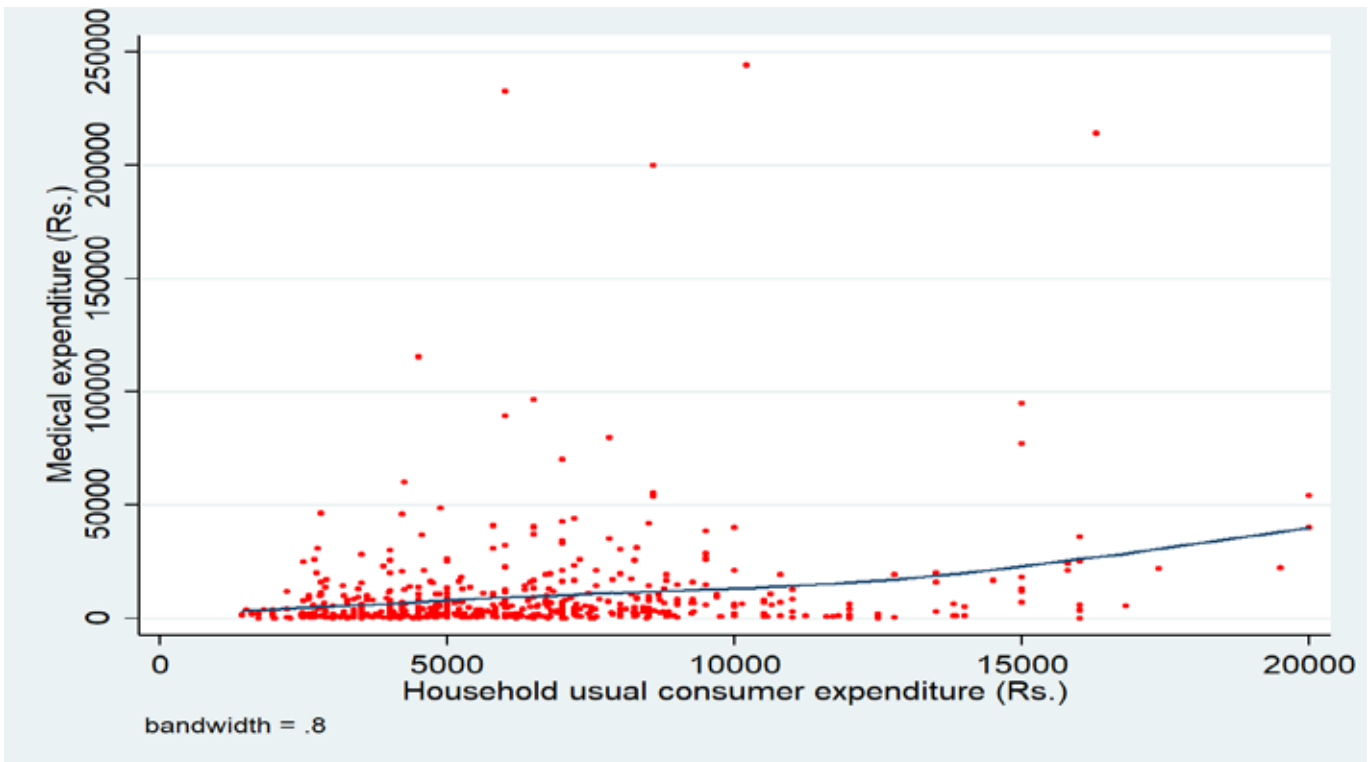
### A bivariate analysis

We ran locally weighted polynomial regression to see the relationship between households' total consumption expenditure and medical expenditure and found that households with higher consumption expenditure generally spend relatively more on medical expenditure. But households with low consumer expenditure also tend to spend on medical services, especially in Rural Jharkhand. Clearly, we can think that the burden of disease in rural areas might be leading to more out-of-pocket expenditure or might be pushing them below the poverty line.

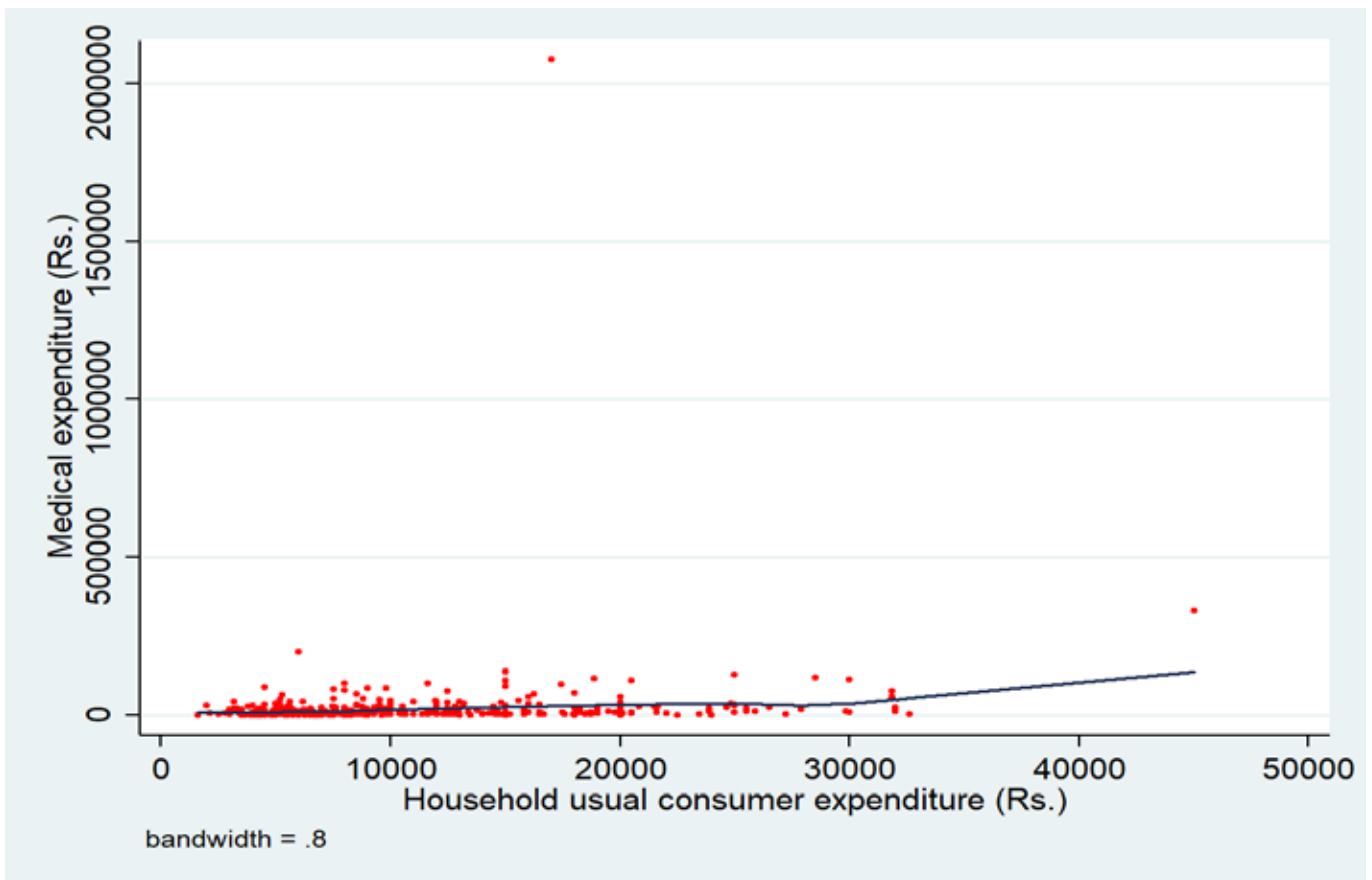
Fig 1 describes the relationship between households' total consumption expenditure and Medical expenditure in Rural Jharkhand and Fig 2 describes the relationship between households' total consumption expenditure and medical expenditure in Urban Jharkhand. Medical expenses are higher for rural households despite their consumption expenditure being low. It clearly explains that the burden of disease is greater in Rural Jharkhand compared to Urban Jharkhand.



**Fig1: Relationship between households' total consumption expenditure and Medical expenditure in Rural Jharkhand**



**Fig 2: Relationship between households' total consumption expenditure and Medical expenditure in Urban Jharkhand**





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# Chapter 13

## Drinking Water and Sanitation





## Drinking water

With the rising population and expanding economic activities, there has been an increase in the demand for water across various sectors such as agriculture, industry, domestic and infrastructural development. However the source of water remains scarce and limited. Thus, limited availability and competing demands make the management of drinking water a complex and critical issue. The glaring demand-supply gap is further compounded by other challenges such as disposal of human excreta, solid and liquid waste into the water bodies, presence of chemical and bacteriological containments, depletion of groundwater, poor annual recharge and poor operation and maintenance of water supply systems, etc.

## Rural Drinking Water in Jharkhand

Rural drinking water supply is a state subject where the state government aims to provide every rural citizen with adequate amount of safe water for drinking, cooking and other purposes of domesticity. Water is to be provided on a sustainable basis which is readily available and conveniently accessible at all times and in all situations. Access to safe drinking water has been a persisting problem for Jharkhand, especially in the rural areas where lack of usable water has resulted in decades old sanitation and health problems. Sharp geographic, socio-cultural and economic inequalities persist even today. However, since the induction of Swachh Bharat Mission in 2014, there has been a huge improvement in the provision of drinking water supply.

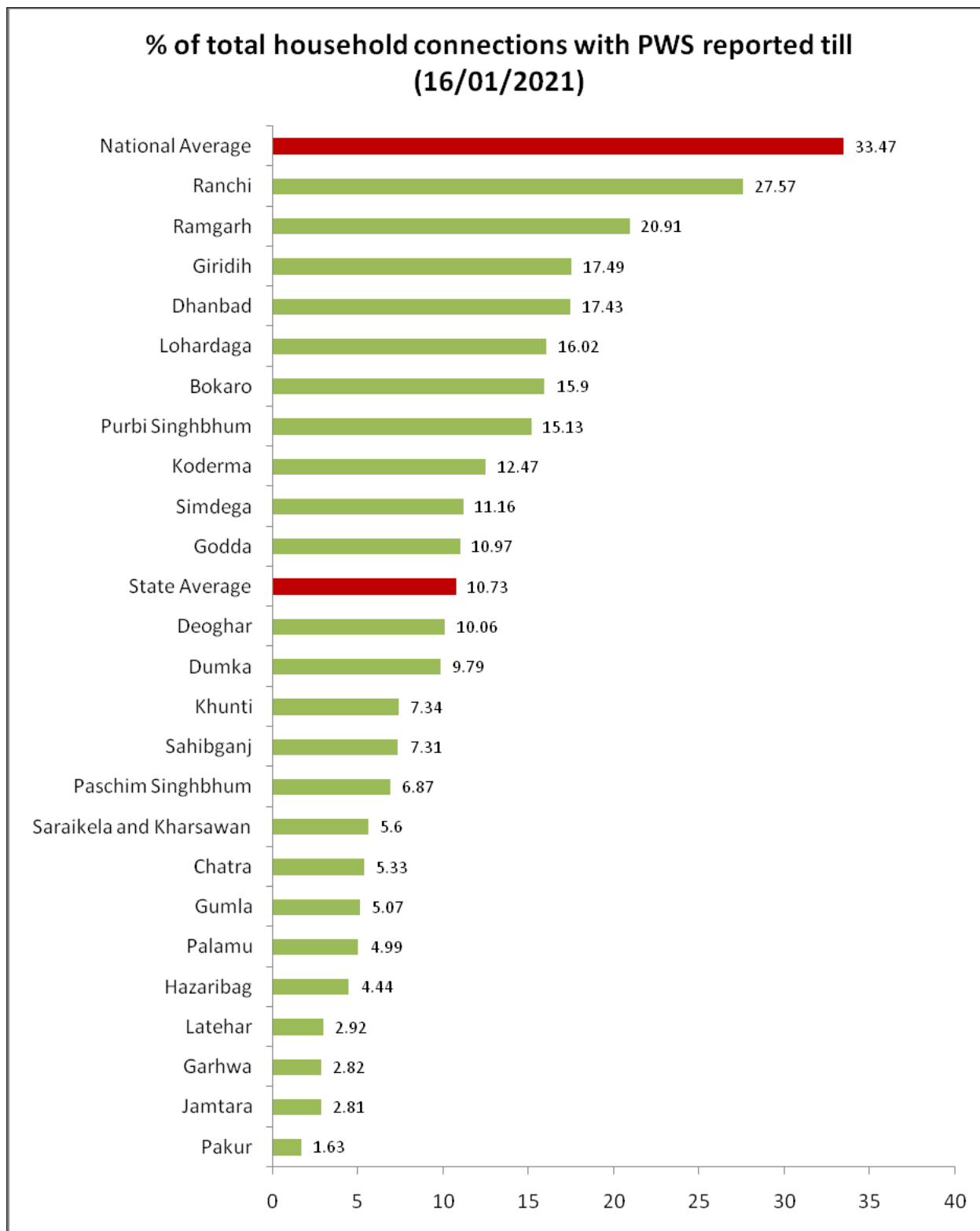
Under the Nation Rural Drinking Water Programme, i.e. *Har Ghar Jal* it is aimed to provide access and use

of safe and adequate drinking water within the premises of the household by 2024 which also coincides with the United Nation's Sustainable Development Goals for universal and equitable access to safe and affordable drinking water. The government of Jharkhand is striving in line with the UN's Sustainable Development Goals for providing safe and adequate drinking water to each rural household through coordinated efforts of the Central Governments. Against this backdrop, the Jharkhand government aims to provide safe Piped Water Supply (PWS) including Multi village schemes (MVS) i.e. from safe sources situated far away especially in the water contaminated areas.

## Rural Pipe Water Supply (PWS) & Full Household Tap Connections FHTC)

The focus on pipe water supply reduces the pressure on ground water extraction and also ensures potability of water. With PWS, people spend less time and effort in physically collecting the water, which facilitates their productivity in other ways. The table shows that out of 5408690 reported villages only 580506 rural households have the access to pipe water supply which is merely 10.73 per cent household. This means that the rest 89.27 percent of the households are dependent on other sources for drinking water and cooking. The graph below shows the district wise percentage of total household connected with PWS till date. It is evident from the figure that none of the districts crosses the national average of PWS connection. Ranchi accounts for 27.57 % of the total household having PWS connection.

**Figure 13.1: Percentage of Household connections with Piped Water Supply**



Source: Jal Jeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

which is the highest among all the districts followed by Ramgarh, Giridih and Dhanbad. Pakur, Jamtara and Latehar are among the worst performing districts in

terms of the household with PWS connection. More than 50 per cent of the districts have not crossed even double digits. The state average stands at 10.73 per cent

**Table 13.1: Number of Rural Household connections with Pipe Water Supply**

District	Total Rural Household as on (01/04/2020)	Household Connections with PWS as on (01/04/2020)	Total Household Connections reported till (16/01/2021)	Percentage of Total Household Connections with PWS reported till (16/01/2021)
Pakur	226019	2885	3678	1.63
Jamtara	153800	2456	4318	2.81
Garhwa	235109	4861	6621	2.82
Latehar	143489	3613	4185	2.92
Hazaribag	319035	11398	14170	4.44
Palamu	336051	14356	16762	4.99
Gumla	176619	5893	8946	5.07
Chatra	184974	7756	9863	5.33
Saraikela and Kharsawan	185656	8436	10397	5.6
Paschim Singhbhum	284096	11814	19504	6.87
Sahibganj	251069	13687	18342	7.31
Khunti	99577	6696	7305	7.34
Dumka	257273	18305	25193	9.79
Deochar	222217	13009	22357	10.06
State Average	--	--	--	10.73
Godda	243882	24850	26757	10.97
Simdega	119968	11880	13387	11.16
Koderma	118510	11115	14777	12.47
Purbi Singhbhum	300636	36823	45473	15.13
Bokaro	294700	24010	46850	15.9
Lohardaga	79200	11277	12688	16.02
Dhanbad	254127	20425	44290	17.43
Giridih	403793	54781	70622	17.49
Ramgarh	135917	20913	28417	20.91
Ranchi	382973	101929	105604	27.57
National Average	--	--	--	33.47
	5408690	443168	580506	10.73

Source: JalJeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

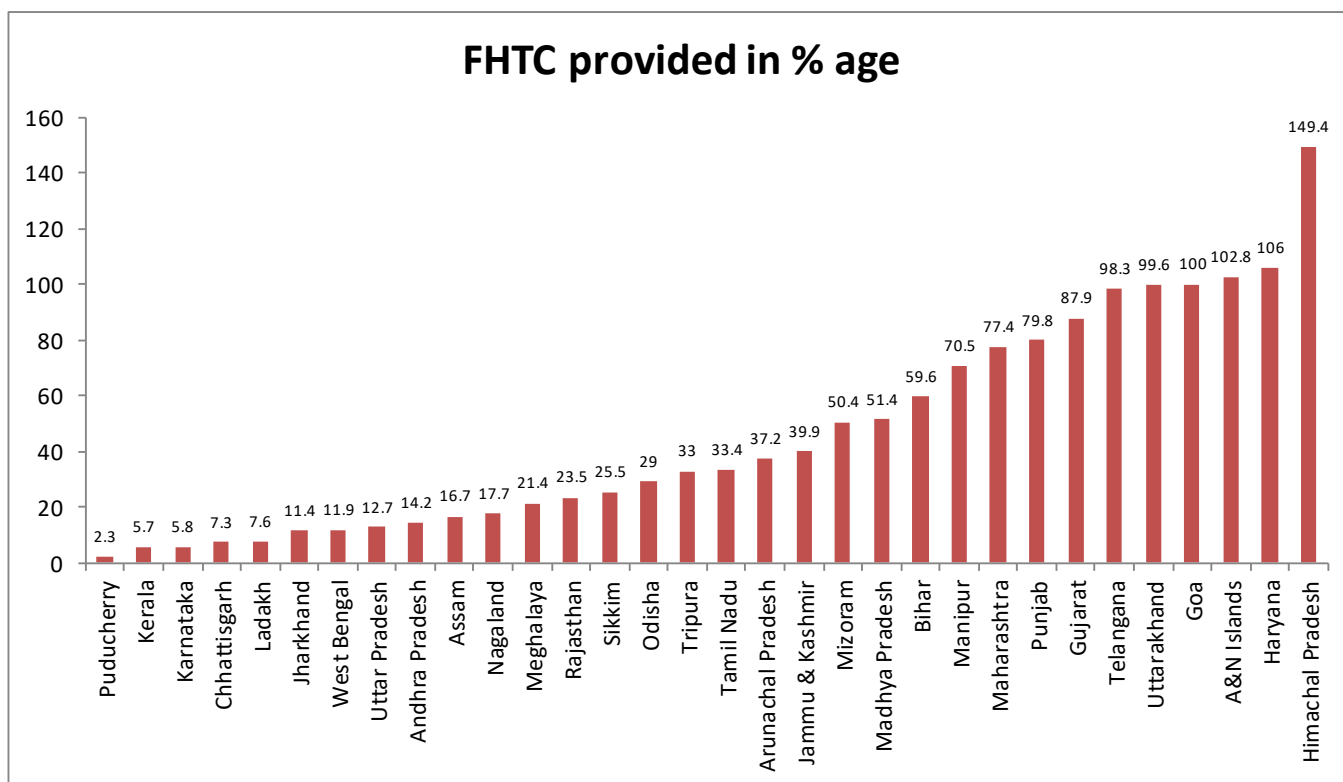
Jal Jeevan Mission (JJM) has been launched in partnership with the states, to enable every household in the villages to have Functional Household Tap Connection (FHTC) by 2024. It is envisaged that with FHTC, each household will have potable water supply in adequate quantity of prescribed quality on regular and long-term basis.

The graph below illustrates the state wise physical progress in terms of FHTC planned and achieved in the current financial year. The targeted households for

FHTC in Jharkhand was 1287000 whereas FHTC could be provided to only 146415 households. Out of this only 175 households have got 100 per cent FHTC. Jharkhand has accounted for 11.4% FHTC and it ranks among the bottom 10 states in terms of achieving the targeted FHTC. There are states that have done exceptional progress, under it. In the states of Himachal Pradesh, Haryana, Goa and Uttrakhand, the achieved FHTC number was even higher than the set targets.



Figure 13.2: Statewise FHTC Percentage



Source: Jal Jeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

The table depicts the district wise status of villages with FHTC, villages with PWS and those without PWS. From the table it can be seen that there are variations across the districts in terms of the number of villages with PWS and those without PWS. Some districts have more number of villages with PWS than villages without PWS and vice versa. For example, Bokaro has a total 708 villages out of which 453 villages have PWS and 255 have none

Palamu has 1793 villages in total of which those without PWS (1184) is higher than with PWS(609). Also, 11 per cent of the villages in Giridih with PWS have reached the level of 100 per cent FHTC which is the highest among all the districts followed by Ranchi, Dhanbad, Ramgarh and Bokaro. Districts like Garhwa, Pakur and Lohardaga have even reported nil FHTC.

Table 13.2: District Wise Full Household Tap Connection with PWS and Without PWS Villages

District Name	Total No. of Villages	Villages without PWS			Villages with PWS				
		No. of Village	No. of Households (without Household tap connections)	No. of Households (with private connections)	No. of Village	Total No. of Households	No. of Households with Household tap Connection	Number of Villages having 100% FHTC	Number of Villages having < 100% FHTC
Bokaro	708	255	54722	0	453	239978	46850	13	440
Chatra	1332	778	74320	0	554	110654	9863	6	548
Deoghar	2303	1454	96060	0	849	126157	22357	23	826
Dhanbad	1157	208	30251	0	949	223876	44290	49	900
Dumka	2635	1207	102450	0	1428	154823	25193	31	1397
Garhwa	846	431	72951	0	415	162158	6621	0	415

District Name	Total No. of Villages	Villages without PWS			Villages with PWS				
		No. of Village	No. of Households (without Household tap connections)	No. of Households (with private connections)	No. of Village	Total No. of Households	No. of Households with Household tap Connection	Number of Villages having 100% FHTC	Number of Villages having < 100% FHTC
Giridih	2636	1543	166816	0	1093	236977	70622	131	962
Godda	1581	550	55382	0	1031	188500	26757	3	1028
Gumla	944	166	18559	0	778	158060	8946	1	777
Hazaribagh	1204	537	91567	0	667	227468	14170	0	667
Jamtara	1071	716	78805	0	355	74995	4318	2	353
Khuti	760	453	40743	0	307	58834	7305	1	306
Koderma	581	235	24899	0	346	93611	14777	4	342
Latehar	758	231	30322	0	527	113167	4185	1	526
Lohardaga	353	94	9771	0	259	69429	12688	0	259
Pakur	1133	512	99029	0	621	126990	3678	0	621
Palamu	1793	1184	140035	0	609	196016	16762	5	604
Paschim Singhbhum	1661	692	78771	0	969	205325	19504	7	962
Purbi Singhbhum	1686	452	37067	0	1234	263569	45473	16	1218
Ramgarh	327	67	19556	0	260	116361	28417	9	251
Ranchi	1334	468	95802	0	866	287171	105604	47	819
Sahibganj	1322	727	96374	0	595	154695	18342	8	587
Saraikeela And Kharsawan	1119	753	91095	0	366	94561	10397	0	366
Simdega	450	110	13402	0	340	106566	13387	3	337

Source: JalJeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

The table below shows the coverage status of water quality affected habitation in the last financial year. The number of such habitations in the last financial year is 344 out of which 38 have been made malaise free. Out of the total 120953 habitations 692 are partially covered and 1,19,917 are fully covered.

**Table 13.3: Coverage Status of Habitations**

District	Total Number of Habitations		No. of Water Quality Affected Habitaions		No. Of Partially Covered Habitations		No. Of Fully Covered Habitations	
	As on	Ach	As on	Ach	As on	Ach	As on	Ach
	01-04-2020		01-04-2020		01-04-2020		01-04-2020	
Total	1,20,953	2,341	344	38	692	0	1,19,917	2,298

**Source: JalJeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)**

**Fund Allocation and Expenditure under NRDWP to Jharkhand**

The table below shows the central and state allocation of funds along with the expenditure statement, unspent amount and opening balance. There has been a greater increment from central allocation fund this year than that during the last year. Last year the amount allocated from the central fund was 267 crores but this year 572.24 crores have been allocated to the state government.

Despite a huge increase in allocation this year by the Central Govt, the actual release of fund is merely 143.06 crores. For the last two years, the unspent amount of

funds is a matter of huge concern. Funds need to be utilised efficiently for achieving the targets set.

**Table 13.4: All NRDWP funds except Calamities: Allocation, Release and Expenditure Statement**

Date	Opening Balance (Central) (01/04/2020)	Central Allocation	Central Release upto 16/01/2021	Expenditure				Bank Interest	Other deposits / Recoveries	Unspent Amount
				Total	Central	%age against the Central Fund	State			
	4	5	6	(7+8)	7	(7/(4+6+9))*100	8	9	10	(4+6-7+9+10)
Till January 2021	268.39	572.24	143.06	278.22	202.81	49.29	75.41	0	0	208.65
2019-20	75.79	267.69	291.19	234.28	114.58	29.92	119.7	15.99	0	268.39
2018-19	126.15	207.97	85.12	237.66	136.73	64.34	100.9	1.24	0	75.79
2017-2018	79.46	172.68	209.09	378.02	171.47	57.61	206.5	9.07	0	126.15

Source: JalJeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

**Water Quality Monitoring & Surveillance in Jharkhand**

The water quality monitoring and surveillance in the rural areas of Jharkhand comprises of two levels of inspection

- water quality testing in State/District/Sub-Division/Mobile water quality testing Laboratory
- Use of Field Test Kits (FTKs) in Gram Panchayat(s)

to find out the extent of contamination and refer the positively tested samples to the nearby Water Quality Testing Laboratory for confirmation.

Contaminated water and poor sanitation are linked to the transmission of diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid, and polio. Absent, inadequate or inappropriately managed water and sanitation services expose individuals to preventable health risks.

**Table 13.5: Year Wise Contaminated Sources and Types**

Date	No. of Sources	No. of Public Taps	No. of Sources found Contaminated (above IS - 10500 Permissible limit)					No. of Habitats Affected	
			Arsenic (As)	Fluoride (Fl)	Nitrate (NO3)	Salinity (TDS)	Iron (Fe)		Bacteriological
2009-10	5,22,638	11,104	1	133	0	0	358	1	392
2010-11	5,22,638	11,104	101	30	33	0	307	193	183
2011-12	5,22,638	11,104	50	14	18	0	207	387	70
2012-13	5,22,638	14,005	6,819	734	2,240	2	36,918	25,339	1,517
2013-14	5,22,638	16,038	3	891	121	23	2,832	15	1,036
2014-15	5,22,638	16,038	1,675	1,189	121	19	18,963	189	8,496
2015-16	5,22,638	28,530	18	663	47	6	15,575	224	7,478
2016-17	5,22,638	28,530	18	159	33	6	17,765	1	8,971

Date	No. of Sources	No. of Public Taps	No. of Sources found Contaminated (above IS - 10500 Permissible limit)						No. of Habitats Affected
			Arsenic (As)	Fluoride (F1)	Nitrate (NO3)	Salinity (TDS)	Iron (Fe)	Bacteriological	
2017-18	5,22,638	31,355	4	267	19	25	4,820	2	3,020
2018-19	5,22,639	39,454	0	11	21	8	3776	16	2461
2019-20	5,22,639	39,613	0	4	66	2	2571	1	1778
Till January 2021	5,22,639	39,612	0	0	0	0	0	0	0

Source: JalJeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

The table above shows the year-wise reported contaminated sources due to physio chemical pollutants such as arsenic, fluoride, nitrate, salinity and iron. According to the Bureau of Indian Standards (BIS), if the water sources cross the BIS limits of more than 0.01mg/l for Arsenic, 1.5mg/l for Fluoride, 1mg/l for Iron and 45 mg/l for Nitrate, then it is said to be

contaminated. Consumption of such water will have serious repercussions on health. From the table given below, it is evident that in the last couple of years the contamination levels have gone down as the earlier contaminated sources were treated and now most of these sources of water are safe for the purpose of procuring drinking water.

**Table 13.6: District Wise Testing Reports of Contaminated Sources and Types**

District	Schemes/ Delivery Points and Other Sources as on (16/01/2021)	Nos. Of Sources Tested	Nos. of Sources with Contaminants Above Permissible Limit	
			Chemical	Bacteriological
Total	522639	307427	67555	26110
Bokaro	23173	11247	901	0
Chatra	14792	11366	758	0
Deoghar	22277	14436	1609	0
Dhanbad	26714	10745	1208	0
Dumka	29018	11756	3057	0
Garhwa	18992	14484	634	222
Giridih	34232	11376	597	2
Godda	22294	14831	110	0
Gumla	25871	11168	210	0
Hazaribagh	21728	12407	291	0
Jamtara	15058	10512	911	0
Khunti	10366	9856	189	1
Koderma	11608	7503	83	1
Latehar	10788	8760	37	0

District	Schemes/ Delivery Points and Other Sources as on (16/01/2021)	Nos. Of Sources Tested	Nos. of Sources with Contaminants Above Permissible Limit	
			Chemical	Bacteriological
Lohardaga	8139	5593	1771	0
Pakur	17656	11307	1684	0
Palamu	19891	13939	795	2
Paschim Singhbhum	19936	10681	2478	0
Purbi Singhbhum	39553	25340	14965	16
Ramgarh	9960	10121	1166	0
Ranchi	41084	11978	4067	146
Sahibganj	46872	40039	25111	25714
Saraikela and Kharsawan	18912	10556	2113	5
Simdega	13725	7426	2810	1
Total	522639	307427	67555	26110

Source: Jal Jeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

The table above shows that in Jharkhand, out of all the tested sources, 22 per cent are chemically contaminated and 8.5 per cent are bacteriologically contaminated. Sahibganj seems to have reported the largest number of contaminated sources. Both the chemical and the bacteriological content here are far more high than the other districts of Jharkhand. Around 60 per cent of the tested sources in East Singhbhum are chemically contaminated. Similarly, 34 per cent of the tested sources in Ranchi are chemically contaminated. Many districts

have even reported nil incidences of bacteriological contaminants.

The table below illustrates a detailed report of the sources tested and the type of contamination found across all the districts of Jharkhand. Chatra district has the highest number Nitrate contaminants followed by Palamu, Deoghar and Jamtara. Sahibganj reported the highest number of iron, fluoride, arsenic and other bacteriological contaminants.

**Table 13.7: District Wise Detailed Testing Reports of Contaminated Sources Types**

District	Total Nos. of Sources Tested	Tested Sources Not Found Contaminated	Nos. of Sources with Single Chemical Contaminants						Nos. of Sources with Bacteriological Contaminants	Nos. of Sources with Multiple Contaminants	Nos. of Sources with Other Contaminants
			Iron	Fluoride	Salinity	Nitrate	Arsenic	Other	Faecal Coliform		
Total	175323	170788	4657	872	0	484	7	579	519	754	37
Bokaro	4653	4648	7	0	0	0	0	3	0	0	0
Chatra	11316	10804	667	94	0	239	0	79	2	6	2
Deoghar	3256	3211	13	2	0	16	0	4	11	4	0

District	Total Nos. of Sources Tested	Tested Sources Not Found Contaminated	Nos. of Sources with Single Chemical Contaminants						Nos. of Sources with Bacteriological Contaminants	Nos. of Sources with Multiple Contaminants	Nos. of Sources with Other Contaminants
			Iron	Fluoride	Salinity	Nitrate	Arsenic	Other	Faecal Coliform		
Dhanbad	3721	3685	25	2	0	6	1	0	1	6	0
Dumka	11410	11250	106	37	0	12	0	8	30	30	0
Garhwa	11409	11262	5	73	0	0	0	2	111	47	3
Giridih	2534	2533	0	1	0	3	0	0	0	0	0
Godda	4235	4235	0	0	0	0	0	0	0	0	0
Gumla	3058	3007	21	6	0	3	0	2	0	19	2
Hazaribagh	8978	8957	52	0	0	0	0	0	0	0	0
Jamtara	9744	9630	92	1	0	12	0	9	0	21	0
Khunti	1769	1769	0	0	0	0	0	0	0	0	0
Koderma	8526	8463	49	23	0	0	0	19	1	61	0
Latehar	4386	4386	1	0	0	0	0	0	0	0	0
Lohardaga	4971	4843	142	1	0	1	0	0	14	24	0
Pakur	7162	7081	38	9	0	1	0	12	34	0	0
Palamu	8038	7842	138	131	0	18	0	17	62	7	0
Paschim Singhbhum	10873	10618	363	0	0	0	0	5	4	3	10
Purbi Singhbhum	1208	1207	1	0	0	0	0	0	0	0	0
Ramgarh	9922	9801	386	1	0	4	0	0	0	9	0
Ranchi	14438	14414	94	0	0	0	0	0	0	0	0
Sahibganj	14247	12034	1659	488	0	169	6	410	210	452	20
Saraikela and Kharsawan	13684	13353	794	3	0	0	0	9	39	25	0
Simdega	1785	1755	4	0	0	0	0	0	0	40	0
Total	175323	170788	4657	872	0	484	7	579	519	754	37

Source: Jal Jeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

In order to provide immediate relief in the arsenic, fluoride, iron and other heavy metal affected habitations, CWPP can be installed to provide 8-10 lpcd as a short term measure for drinking and cooking purposes. However, as a permanent measure surface water supply based systems will have to be installed to provide FHTC with the service level of 55 lpcd. National Accreditation

Board for Testing and Calibration Laboratories (NABL) takes care of the laboratory based testing. The table below shows the existing type of community water purification plants placed along with the population in the habitations where these plants have been settled. Electric Defluoridation and Nano Technology plants are predominant in Jharkhand currently.

**Table 13.8: Community Water Purification Plants**

District	Community Water Purification Plants							
	Reverse Osmosis (RO)	Adsorption	Solar Electrolytic Defluoridation	Ion Exchange	Nano Technology	Electric Defluoridation Plant	No of Habitations	Population in these Habitations
Total	0	79	12	1	217	238	345	168756

Source: Jal Jeevan Mission, Department of Drinking Water and Sanitation, [https://ejalshakti.gov.in/IMISReports/NRDWP\\_MIS\\_NationalRuralDrinkingWaterProgramme.html](https://ejalshakti.gov.in/IMISReports/NRDWP_MIS_NationalRuralDrinkingWaterProgramme.html)

**SANITATION**

The Term 'sanitation' has a comprehensive meaning that encompasses efficient management of human waste (which includes collection, handling and reprocessing), solid waste (including biodegradable and non-biodegradable materials), waste water, sewage discharges, industrial wastes and hazardous wastes such as chemical, plastics and other dangerous substances. Lack of sanitation has both economic and social consequences. It has serious repercussions for the development of the country. It poses grave health challenges such as the prevalence of communicable and non-communicable diseases, high maternal and infant mortality rate and under-nutrition in children thus exacerbating socio-economic differences and the process of inclusive growth and development.

**Swachh Bharat Mission – Grameen**

Mahatma Gandhi in his early days realised that the prevalent sub-standard state of sanitation is largely related to inadequate toilets in rural India. This needs an urgent attention. He went on to say that ‘Cleanliness is Godliness’. He meant that when there is both inner and outer cleanliness, it leads to Godliness. Inspired by this vision of the Father of the Nation, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October, 2014 which is also the birthday of Mahatma Gandhi. The program has been initiated to accelerate the efforts for achieving universal sanitation coverage.

Swachh Bharat Mission- Gramin (SBM-G) aims to bring about changes in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation. The main components and activities for the implementation of SBM-G are as follows:

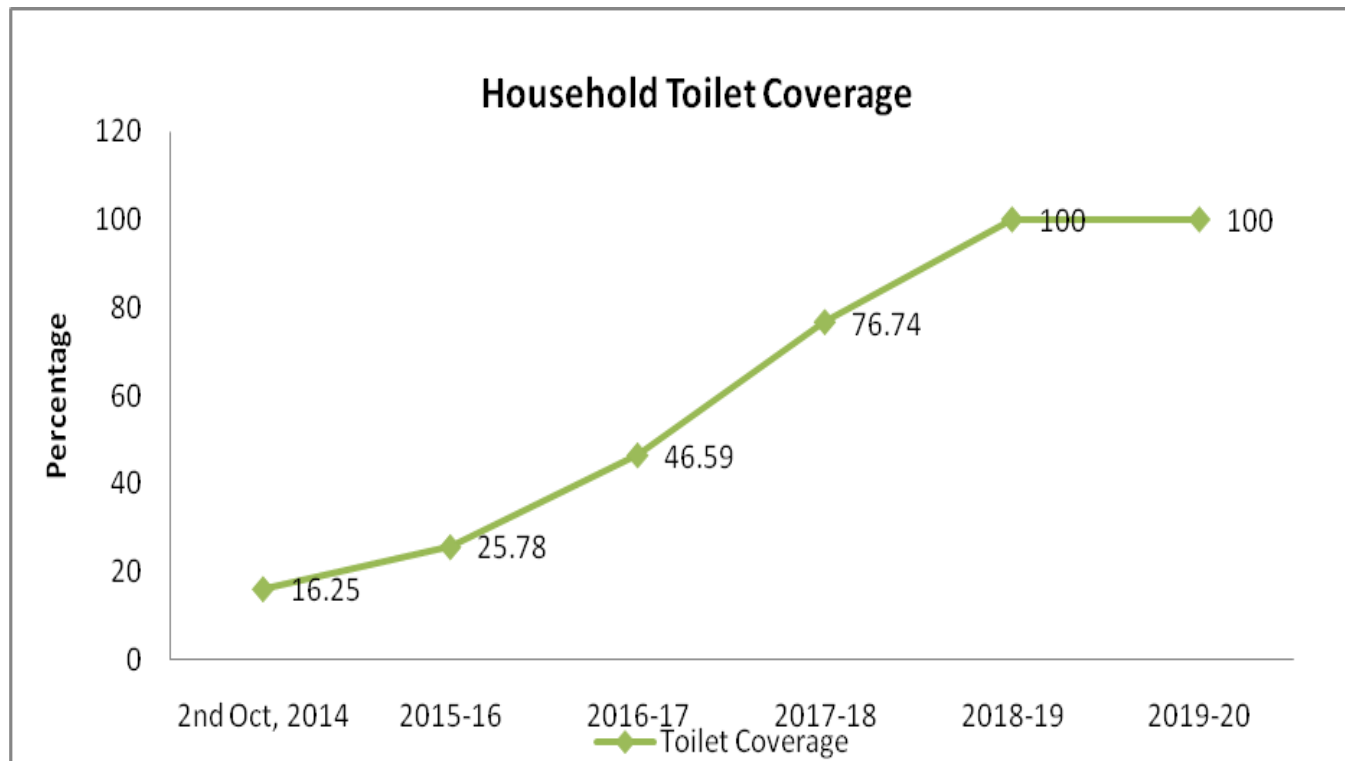
- Construction of Individual Household Latrines (IHHL)
- Solid and Liquid Waste Management
- Information, Education and Communication (IEC) activities
- Capacity building of the stakeholders
- Micro-financing of the construction of toilets
- Community Sanitary Complex

Jharkhand has become an Open Defecation Free state in 2018-19. This tremendous achievement was due to the aggressive and bold policies led and implemented by the state and Central Government under the umbrella of Swachh Bharat Mission (SBM). Open defecation perpetuates a vicious cycle of disease and poverty. WHO says that in the countries where open defecation is most widespread, the highest number of deaths of children aged under 5 years are reported. High levels of malnutrition, stunted growth, pneumonia poverty and huge income disparities are also witnessed.

One of the main components of Swachh Bharat Mission Gramin is the construction of Individual Household Latrines (IHHL). The rural household toilet coverage graph shows that before the launch of SBM-G only

16.25 per cent of the households had access to toilets but within a span of five years the state has achieved cent per cent household toilet coverage which itself is an extraordinary story of success.

**Figure 13.3: Household Toilet Coverage**



Source: Swachh Bharat Mission Grameen, Department of Drinking Water and Sanitation

The table below shows the financial year wise progress in the ODF attainment of the villages on an early basis. The table shows that only 68 villages were declared ODF in the year 2015-16 while presently all the villages in Jharkhand have been declared ODF which is milestone.

Also out of 29564 ODF declared villages 99.3 per cent have been verified at the first level which again speaks volumes for the work done by the government of Jharkhand.

**Table 13.9: Financial Year Wise ODF Declared and Verified Villages**

Financial Year	Declared ODF	Verified ODF (1st Level)
2015-2016	68	0
2016-2017	3316	596
2017-2018	10489	4502
2018-2019	15691	18150
2019-2020	0	6085
Total	29564	29333

Source: Swachh Bharat Mission Grameen, Department of Drinking Water and Sanitation



Below are the key strategies adopted by the government of Jharkhand to end open defecation and to provide adequate and equitable sanitation and hygiene to all.

- Planning and Execution of district and state roadmaps for achieving ODF phase-wise using mass scale mobilization of resources
- Multi-stakeholders engagement such as village organisations, SHG's and women mason 'Rani Mistri' to expedite the construction of IHHL
- Community led sanitation drive through the training of 'Swachha-grahis' using incentive based deliverables.
- Monitoring and supportive supervision at the block/ gram panchayat level
- Social and behavioural change in communication approaches using the participation of faith leaders, Jal Sahiya and VO members of the SHG.
- Mobilization of Funds through DMFT, MLA and CSR was channelized to support mass scale construction of IHHL.

Individual Household Laterine (IHHL) is one of the key interventions under the SBM. The construction of these are mostly demand driven and they are the outcome of people centred programmes. A nominal subsidy in the form of incentive is given to the rural household for construction of toilets. The key objectives are as follows:

- Bring about an overall improvement in the general quality of life in the rural areas
- Accelerate sanitation coverage in the rural areas
- Eliminate open defecation to minimize the risk of contamination of drinking water sources and food

The figure below illustrates the progress made in the IHHL coverage district wise from the 2014-15 financial year when SBM was launched to the current year. It can be observed from the table that none of the districts in 2014-15 had IHHL coverage above 60 per cent. Even IHHL coverage can be seen in single digit for some of the districts in 2014-15. Dhanbad and Giridih are two such districts. Huge progress has been made by the government of Jharkhand in providing the rural population access to household toilets in a short span of time. Only a few districts left where the IHHL coverage is below 80. Dhanbad is one such district.

**Table 13.10: Key Accomplishment till Date**

Achievements	Data
Toilet Built since 2nd Oct 2014	35,86,356
Percentage Increase in HHs with Toilet	83.75%
Toilet Built in 2019-20	4,87,399
No. of ODF Districts	24
No. of ODF Gram Panchayats	4396
No. of ODF Villages	29,564

*Source: Swachh Bharat Mission Grameen, Department of Drinking Water and Sanitation*

There has been an increase of 83.75 per cent in the number of households with toilets since October 2014 till date. All the 24 districts, 29564 villages and 4396 gram panchayats have been declared as ODF. The number of toilets built till date is 35,86,356 which itself is a benchmark.

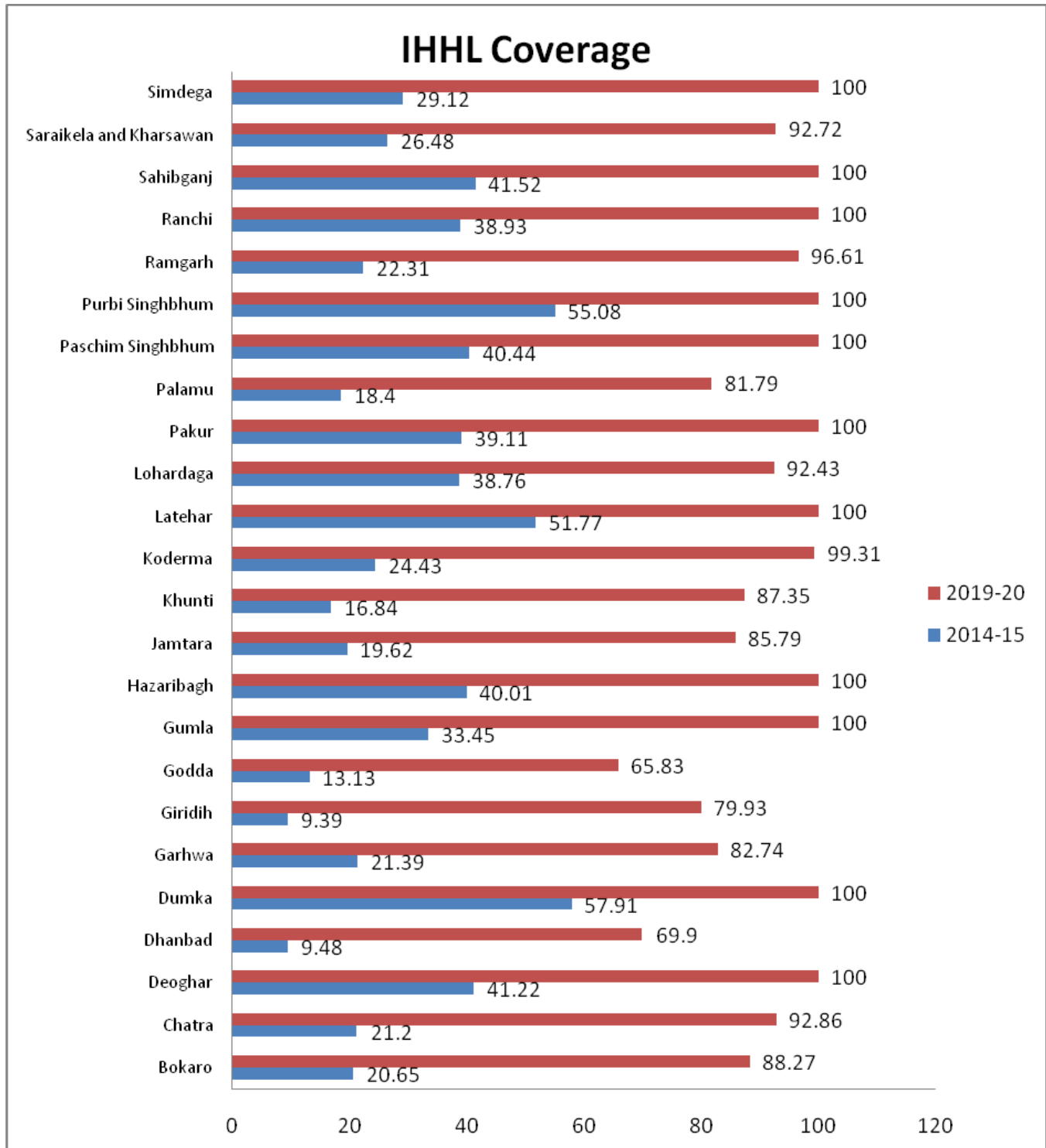
After the huge success of SBM-G Phase I, the union government has approved Phase II of the SBM (G) till 2024-25. It will focus on Open Defecation Free Plus (ODF Plus) and will also include ODF sustainability and Solid and Liquid Waste Management (SLWM). The programme will also work towards ensuring that no one is left behind and everyone has access to a toilet. An ODF Plus village is defined as a village which sustains its Open Defecation Free (ODF) status, ensures the management of solid and liquid waste and is visibly clean. Given the broad objectives of the SBM-G Phase II it would be useful to analyse the above objectives using the pre-existing situation.

The table below provides the insights pertaining to the sanitation status existing in Jharkhand at the state and the national level. This provides a snapshot of where we are at present. To maintain the ODF Plus status it is important to ensure that toilets are functional, and are maintaining proper hygiene along with the safe disposal of human excreta. The table shows that Jharkhand has close to 94-95 per cent functional toilets in households and anganwadis which is slightly lower than that of the national average. Both at the national and the state levels schools have

more than 99 per cent toilets which are functional. There is a scope for improvement in maintaining the sanitary condition at the household level and in schools. The state has been successfully able to manage the safe disposal mechanism on every front. Even with these impressive

figures, it is vital that social and behavioural change and communication approaches keep pace with the service delivery to ensure that beneficiaries receiving toilets continue to use them regularly.

**Figure 13.4: IHHL Coverage**



Source: Swachh Bharat Mission Grameen, Department of Drinking Water and Sanitation

**Table 13.11: Sanitation Status**

Sanitation Status	India	Jharkhand
Functionality of toilets		
Percentage of households having functional toilet	96.4	94.9
Percentage of Anganwadis having functional toilets	97.8	94.6
Percentage of Schools having functional toilets	99.3	99.3
Sanitary condition of toilets		
Percentage of households where toilets are found in hygienic condition	96.3	93.8
Percentage of Anganwadis where toilets are found in hygienic condition	98.6	100.0
Percentage of Schools where toilets are found in hygienic condition	99.1	97.9
Disposal mechanism of human excreta from toilets		
Percentage of household toilets with safe disposal mechanism	99.9	100.0
Percentage of Anganwadis toilets with safe disposal mechanism	99.0	100.0
Percentage of school toilets with safe disposal mechanism	99.5	100.0
Solid & liquid waste management (SLWM)		
Percentage of households where solid waste is not visible	97.5	98.9

Sanitation Status	India	Jharkhand
Percentage of households where liquid waste / stagnant water is not visible	97.4	98.9
Percentage of villages with minimal level of littering	84.6	85.6
Percentage of villages with minimal level of water logging	85.2	86.9

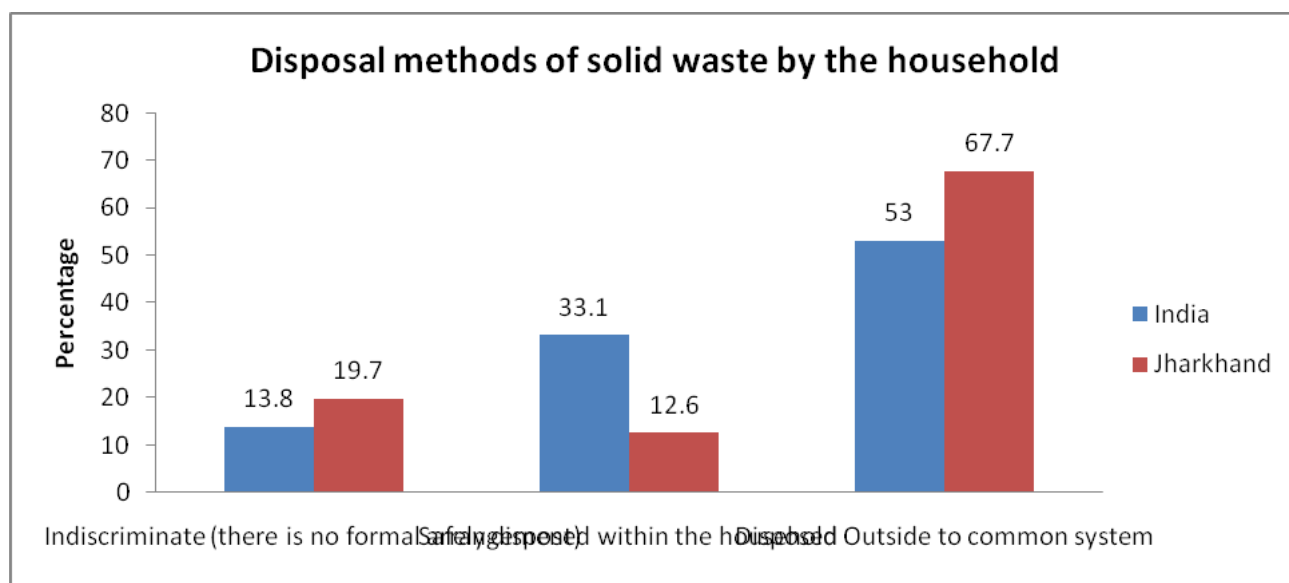
Source: National Annual Rural Sanitation Survey (NARSS), Round-3, 2019-20

The solid and liquid waste management is another very important component of SBM-G. The presence of litter and stagnant waste water around the household premises is an indicator of poor solid and liquid waste management practices. SLWM includes the management of solid wastes like bio-degradable wastes from cattle, agricultural activities and community compost pits and the management of liquid wastes such as grey water generated from kitchen, through bathing and individual and community soak pits. The table above shows that Jharkhand is well and above the national average in managing the solid and liquid waste.

The graph below illustrates that around 19.7 per cent of the households have an unsafe or an indiscriminate disposal methods of solid waste in rural Jharkhand. This number is also below the national average of 13.8 per cent.

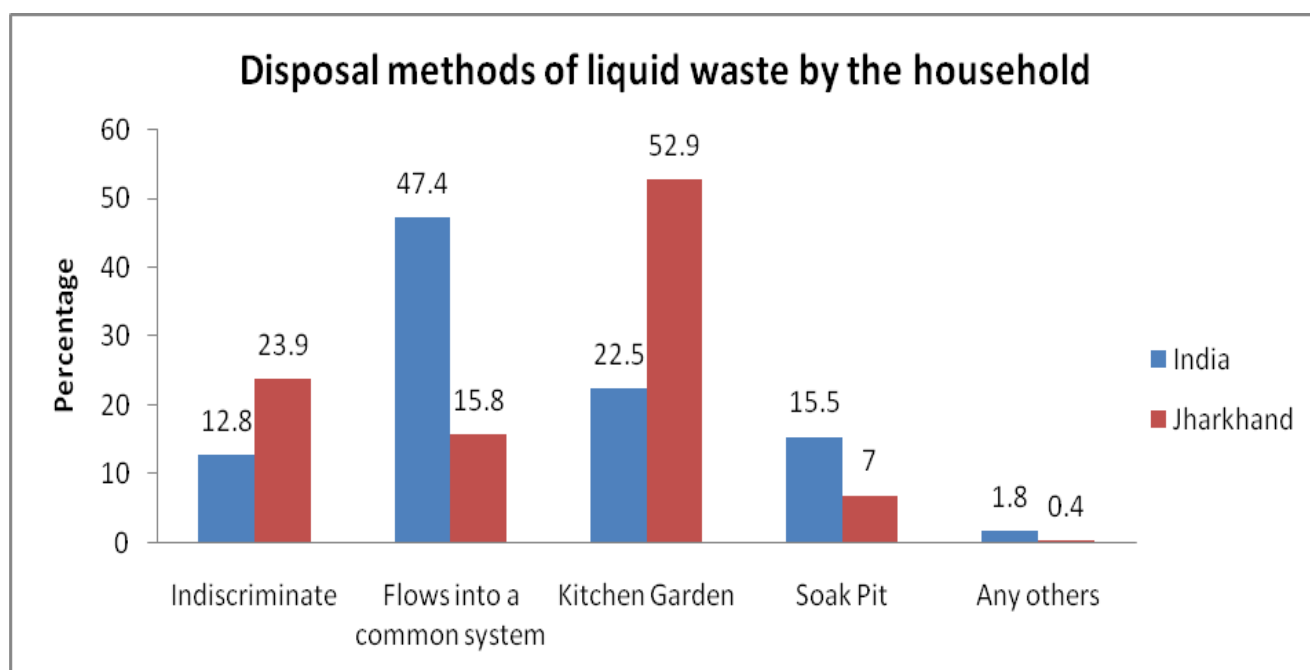
Diarrhoea and malaria remain the major fatal diseases in India. Nevertheless are largely preventable too. Over the years there have been a decrease in the prevalence of these water borne diseases due to aggressive policies like SBM-G. The main contributing factor of such diseases is the inefficient disposal methods of liquid waste adopted by a large number of households. Around 23.9 per cent of the household reported that they use unsafe disposal methods of liquid waste which is very high compared to the national average of 12.8 per cent. Focus should on the usage of soak pits and other safe disposal methods.

**Figure 13.5: Disposal Methods Of Solid Waste By The Households**



Source: National Annual Rural Sanitation Survey (NARSS), Round-3, 2019-20

**Figure 13.6: Disposal Methods Of Liquid Waste By The Households**



Source: National Annual Rural Sanitation Survey (NARSS), Round-3, 2019-20

**Table 13.12: Sanitation Status At Public Place**

Sanitation Status At Public Places	India (%)	Jharkhand (%)
<b>Villages where visible faeces are not found in public places</b>		
Visible faeces Found	1.5	0
Faeces not found	98.5	100
<b>Open defecation instances on open ground</b>		

Sanitation Status At Public Places	India (%)	Jharkhand (%)
Visible faeces Found	2.4	1.3
Faeces not found	97.6	98.7
<b>Open defecation instances in roads alongside the villages</b>		
Visible faeces Found	2.4	0
Faeces not found	97.6	100
<b>Public places show minimal level of littering</b>		
Minimal	84.6	85.6
Substantial	15.4	14.4
<b>Public places show minimal level of water logging</b>		
Minimal	85.2	86.9
Substantial	14.8	13.1

Source: National Annual Rural Sanitation Survey (NARSS), Round-3, 2019-20

Visual cleanliness is one of the major objectives that falls under the umbrella SBM-G Phase II. According to the latest guidelines, a village will be classified as visually clean if 80 per cent of households and the public places are observed to have minimal litter and minimal stagnant water, and that there is no accumulation of plastic waste

in the form of a dump in the village. The above table shows that there are zero instances of open defecation reported in roads alongside villages and in public places. However there have been reports related to littering and water logging. These numbers are minimal and well below the national average.

**Table 13.13: Sanitation Status of Public Toilets**

Sanitation Status of Public Toilets	India (%)	Jharkhand (%)
<b>Distribution of public toilet by village</b>		
Yes	16.6	4.6
No	83.4	95.4
<b>Distribution of villages with public toilet having separate sections for men and women</b>		
Yes, there are separate sections	58	71.4
No, there are no separate sections	42	28.6
<b>Distribution of public toilets by user fee charges</b>		
Yes	9	28.6
No	91	71.4

Source: National Annual Rural Sanitation Survey (NARSS), Round-3, 2019-20

Separate public toilets promote dignity and boost safety, particularly among women and girls. 71.4 per cent of the public toilets in Jharkhand have reported separate sections for men and women which is 13.4 per cent more than that of the national average. Also, 91 per cent of the public toilets at the national level are available

free of cost while Jharkhand has reported 71.4 per cent of such usable toilets. This brings a scope of building community sanitation centres in places where the number of households is more than 100 and public toilets are available free of cost. This would be an important step for attaining the objectives of SBM-G, Phase II.

### Box 13.1: IEC Focus Activities On COVID-19 Protection Measures

District Project Management Unit of Ramgarh in Jharkhand provided support through IEC activities that are focusing on awareness and protection against COVID-19. Naina Aajivika Vikas Samuh SHG of Jario village in Jamira Gram Panchayat of Dulmi Block has painted on more than 50 individual household latrines with valuable text messages and wall paintings, that promote hygiene, depicting ways in which the community can protect itself from the pandemic.

The straight forward colourful messages serve as a constant reminder to the community to protect itself from the pandemic. It also calls them to look for symptoms and apprises them of the need to use masks, wash hands frequently with soap and water and social distancing.

### Box 13.2: RFID-based Garbage Collection System

Ranchi Municipal Corporation is planning to soon roll out Radio-Frequency Identification (RFID)-based garbage collection system in the capital for which it has roped in two specialised agencies on the occasion of one year of completion of the incumbent state government on December 29.

The partner company will install RFID tags across bins in two lakh households which will help them track the situation of daily waste collection on real time basis from the control centre, which is being set up at the RMC.

### Swachh Bharat Mission – Urban

Swachh Bharat Mission (Urban) was launched on 2nd Oct 2014 with the vision of ensuring hygiene, waste management and sanitation across the nation. The objectives of the mission are given below:

- Elimination of open defecation
- Eradication of Manual Scavenging
- Modern and Scientific Municipal Solid Waste Management
- To effect behavioural change regarding healthy sanitation practices
- To generate awareness about sanitation and its linkage with public health
- Capacity Augmentation for ULB's
- To create an enabling environment for private sector participation in Capex (capital expenditure) and Opex (operation and maintenance)

Jharkhand has been declared an ODF state in 2018-19. Now the focus is more on sustaining the on-ground performances of cities and improving the levels of cleanliness through solid waste management activities, making cities garbage free and creating behavioural changes through Information, Education

and communication (IEC) to ensure that sanitation as an issue is main streamed with the general public at large. Swachh Bharat Mission (Urban) every year conducts the survey intended to foster a spirit of healthy competition among towns and cities to improve their service delivery to citizens in order to create cleaner cities. Below are few key areas to access the performances of the state

- Solid Waste Management
- Garbage Free City and Open Defecation Free Score
- Service Level Progress

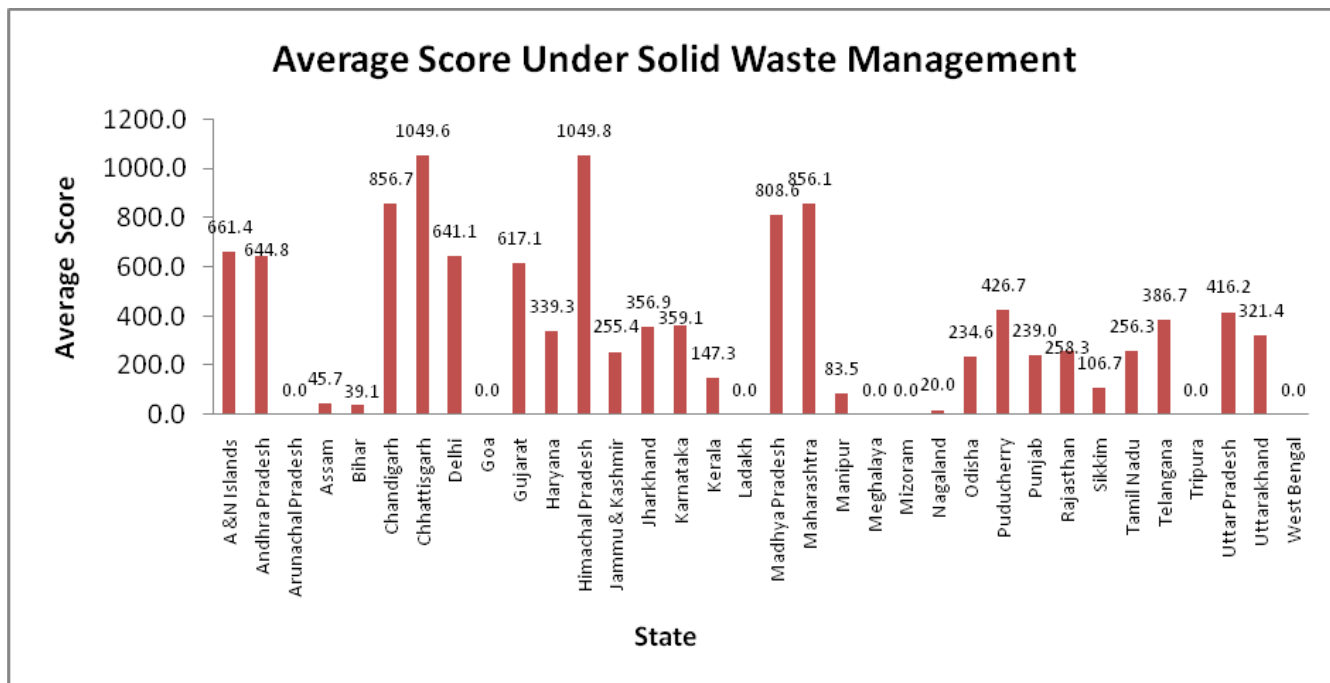
Solid waste management comprising of collection and segregation of solid waste, curtailing solid waste based air pollution, utilising the capacity of wet waste processing facilities, following 3R principles i.e reduce, reuse and recycle and finally engaging technology driven monitoring. The figure below shows the state wise average score obtained in SWM. The average score obtained by Jharkhand in SWM is 356.9. Himachal Pradesh and Chhattisgarh are among the top performing states in SWM with an average score around 1050.

A Garbage free state and an ODF score provide holistic information at the ward as well as at the city level. The ward level locations include residential areas, commercial and institutional areas, parks, gardens

and Bulk Garbage Generators (BGGs). The city level infrastructure covers railway stations, airports, transport hubs, industrial areas, water bodies and storm drains, all

dumpsites, processing plants and scientific landfills, and tourist areas including places of religious worship.

**Figure 13.7: State wise Average Score Under Solid Waste Management**

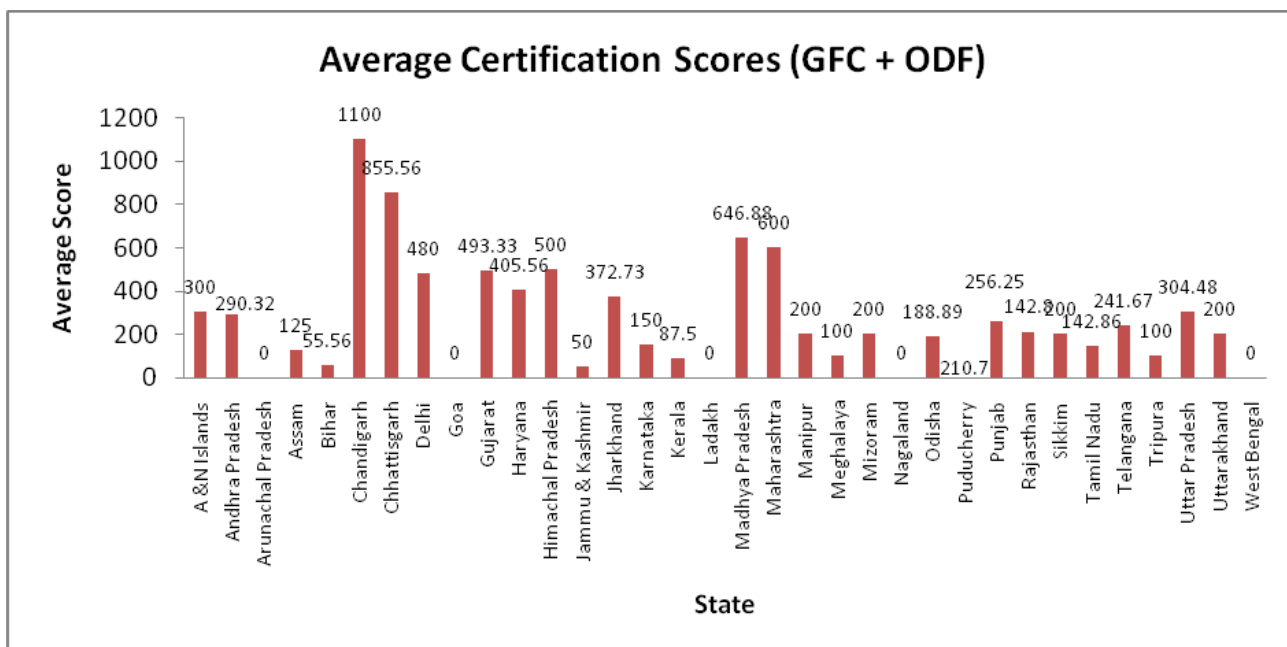


Source: Swachh Survekshan2020, Ministry of Housing and Urban Affairs, Government of India

The table below illustrates the state-wise average of Garbage Free and Open Defecation Free certification score obtained in the year 2020. Jharkhand has performed

reasonably well in this field with a score of 372.73. However, there is definitely a scope for improvement to attain higher score.

**Figure 13.8: State wise Average Certification Scores (GFC + ODF)**

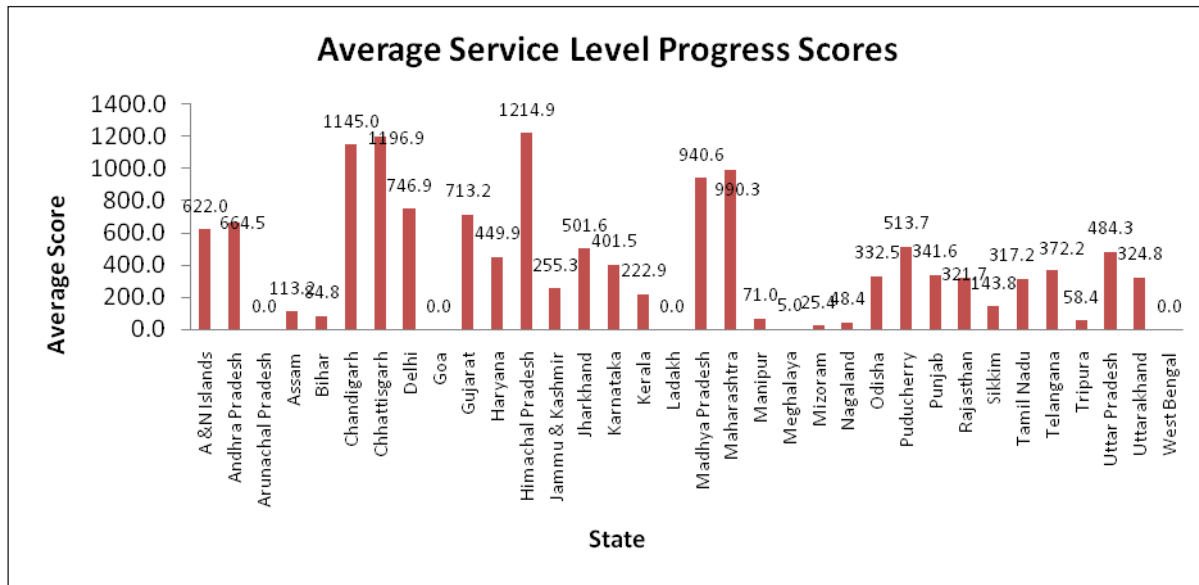


Source: Swachh Survekshan2020, Ministry of Housing and Urban Affairs, Government of India

Service Level Progress scores are calculated on the basis of scores collected on various indicators such as the collection and transportation of waste, processing and

disposal, sustainable sanitation, information, education, and communication, capacity building and innovation.

**Figure 13.9: State wise Average Service Level Progress**



Source: Swachh Survekshan 2020, Ministry of Housing and Urban Affairs, Government of India

The graph above shows the state wise performance in the service level progress. It can be seen that Jharkhand

has done well in the service level progress with the score of 501.06 which is at par with the national average.

**Box 13.3: Winner India’s Best Performing State (>100 ULB’s)**

Jharkhand bags the first rank as the best performing state under 100 ULB’s.

Details	Scores
Overall Score (6000)	2325.4
Performance in Support from State to Cities (1800)	1053.3
Performance in GFC Star Rating and ODF (1800)	900
Performance in Swachh Survekshan 2020 (2400)	372.1

Apart from this East Singhbhum Municipal Corporation Jamshedpur wins Best Medium City in ‘Citizen Feedback’ (3-10 lakh population) (3 -10 Lakh Population)

**Concluding Remarks**

Jharkhand has achieved milestones in rural sanitation, specially in building toilets, making all the villages and districts open defecation free within 5 years of the launch of Swachh Bharat Mission. However, to maintain the same momentum it is very important to have community involvement. A decentralized, demand-driven, community-managed implementation of the

programme will bring a 'sense of ownership' among the local community, create an environment of trust and bring in transparency leading to better implementation and long-term operation and management of sanitation programmes and also that of the water supply system.



**Annexure 13.1**

**Access of household to latrine:**

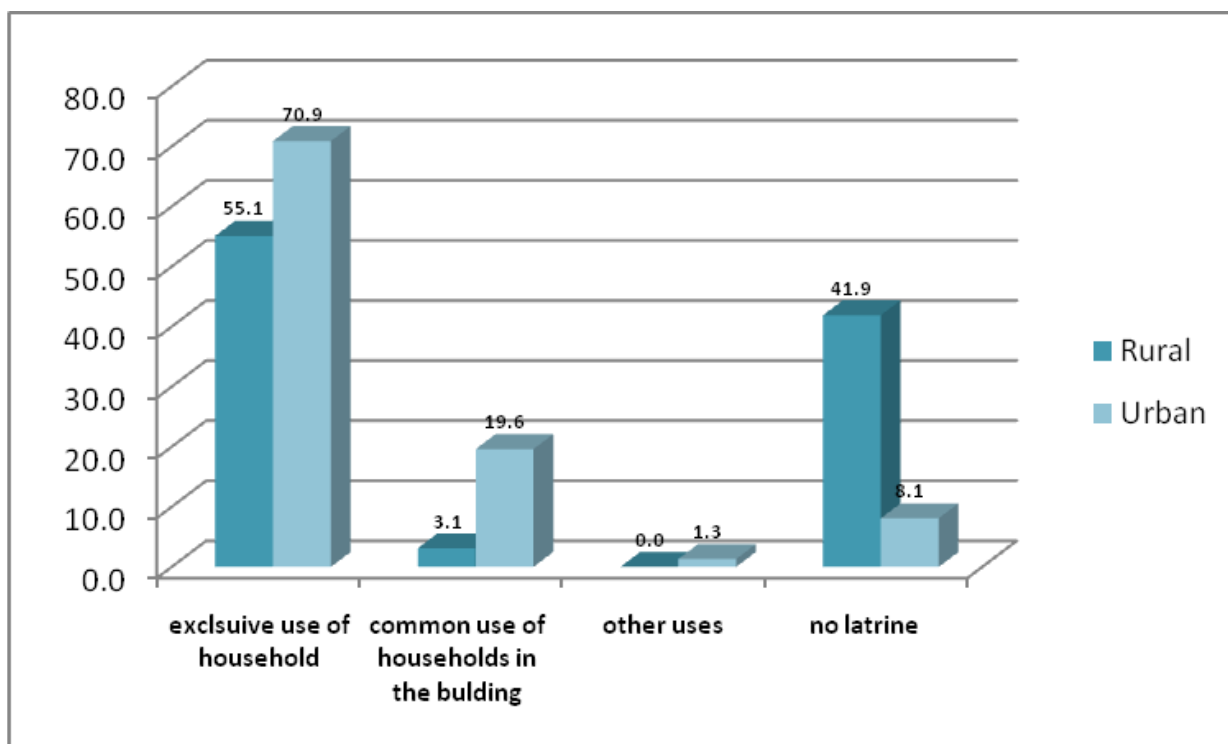
For the purpose of this survey, it was considered that the household in question had access to a latrine and if majority of the household members had the facility of using latrine irrespective of whether it was used by them or not. Information on access to a latrine was collected in terms of six categories viz. (i) exclusive use of household, (ii) common use of households in the building, (iii) public/community use without payment, (iv) public / community use with payment, (v) others and (vi) no latrine. A household was categorized as ‘having access to latrine’, if majority of the household members had the facility of using the latrine irrespective of the situation whether they used it or not. The percentage distribution of households, at the all- India level, by access to latrine is given below in Table 1.

In urban Jharkhand approximately 71% of households have access to latrine which are for exclusive use of households whereas in rural Jharkhand only 55%, i.e. only little more than half of all the households in rural Jharkhand have a latrine which are exclusively for them. Approximately 42% of households in rural Jharkhand have no latrine whereas in Urban Jharkhand this number is as low as 8%. Latrines which are there for common use

of households in the building is high in urban Jharkhand as many households live in one building and a single latrine is used by all households.

**Table 1: Percentage distribution of households by access to latrine**

Access to latrine	Rural	Urban	All
exclusive use of household	55.1	70.9	59.0
common use of households in the building	3.1	19.6	7.1
public / community use without payment	0.0	0.2	0.0
public / community use with payment	0.0	0.6	0.2
others	0.0	0.5	0.1
no latrine	41.9	8.1	33.6
all	100	100	100



*Use of latrine by households members:*

In this survey, for the households which had access to a latrine, information on use of the latrine by the household members was collected in terms of three categories viz. (i) regularly used, (ii) occasionally used and (iii) never used. If a household member generally used the latrine, it was considered that the member had used the latrine regularly. If a member did not use the latrine regularly but used it from time to time, it was considered that the member had used the latrine occasionally. If a member never used the latrine or rarely used it, it was considered that the member had never used the latrine. If a household member regularly used a latrine of any of the types (i) flush/pour-flush to piped sewer system, (ii) flush/pour-flush to septic tank, (iii) flush/pour-flush to twin leach pit, (iv) flush/pour-flush to single pit, (v) ventilated, improved pit latrine, (vi) pit latrine with slab and (vii) composting latrine, it was considered that the member had regularly used improved the latrine and if that improved latrine was for exclusive use of the household,

it was considered that the member had regularly used the improved latrine which was for the exclusive use of the household. The percentage of persons (among persons of the households having access to latrine) who regularly used the latrine, who regularly used the improved latrine and who regularly used the improved latrine which was for the exclusive use of the household are given below in Table 3.

In urban Jharkhand 96.4% of the people regularly use latrine whereas in rural Jharkhand only 85.1% do so. Females in rural area tend to use the latrine regularly compared to men. Similarly 95.4% of the people regularly use improved latrines in urban Jharkhand whereas in rural Jharkhand only 85.1% of the people regularly use improved latrine. Again though, the proportion of males and females using a latrine in urban Jharkhand is almost the same; in rural Jharkhand use of latrines by females is higher compared to males.

**Table 3: The percentage of persons (among persons of the households with access to latrines) regularly use latrine, regularly use improved latrine and regularly use improved latrine which was for the exclusive use of the household**

Description of item	Percentage of persons of the households having access to latrine		
	Rural	Urban	All
<b>1. Regularly used latrine</b>			
Male	83.4	96.2	87.2
Female	86.9	96.6	89.8
All	85.1	96.4	88.4
<b>2. Regularly used improved latrine</b>			
Male	83.4	95.1	86.8
Female	86.9	95.7	89.5
All	85.1	95.4	88.1
<b>3. Regularly used improved latrine which was for exclusive use of the household</b>			
Male	80.3	78.3	79.7
Female	83.4	80.0	82.4
All	81.8	79.1	81.0

*Reason for not using the latrine by the household members who never used a latrine among the households having access to latrine:*

From the households which had access to a latrine, information on reason for not using the latrine was collected for those household members who never used one. The reasons for not using the latrine were categorized as (i) the latrine has no super structure, (ii) the latrine is not clean/sufficient water is not available in the latrine, (iii) malfunctioning of the latrine, (iv) shortage of latrines, (v) the latrine is used for other purposes, (vi) lack of privacy/safety, (vii) personal preference, (viii) cannot afford charges for a paid latrine and (ix) others. The percentage of persons who never used the latrine among those households which had access to one and the percentage distribution of such persons by reason for not using a latrine are given below in table 4.

Approximately 10% of the people in rural Jharkhand never use a latrine though they have access to one, while in urban Jharkhand this figure stands at 3.4%. So, in Jharkhand 8% of the people never use a latrine despite having access to one. Most of the people cited lack of hygiene or unavailability of water as the reasons for not using a latrine. This reason is more prevalent in Urban Jharkhand i.e. 48% of people don't use latrines despite having a latrine because either it's unclean or water is not available. In Rural Jharkhand 28.5% of people gave this reason for not using latrine.

Almost half of the population who don't use latrine despite having access to one didn't give any reason and said there are other reasons.

**Table 4: Percentage of persons who never used a latrine among those households which had access to a latrine and the percentage distribution of such persons by reason for not using a latrine**

Description of item	Rural	Urban	Jharkhand
1. Percentage of persons who never used latrine	9.6	3.4	7.7
2. Percentage distribution of persons who never used latrine by reason for not using latrine			
no superstructure	14.4	0.0	12.6
not clean/ insufficient water	28.5	48.1	31.0
malfunctioning of the latrine	1.7	1.5	1.6
shortage of latrine	2.0	0.0	1.7

Description of item	Rural	Urban	Jharkhand
latrine is used for other purpose	0.0	0.0	0.0
lack of privacy/safety	0.0	0.5	0.1
personal preference	7.1	0.0	6.2
cannot afford charges of paid latrine	0.0	0.0	0.0
Others	46.4	50.0	46.9
All	100	100	100

### Drinking Water in Jharkhand

The source of water from which the household obtained most of its drinking water during the last 365 days was considered the principal source of drinking water of the household. The information on the principal source of drinking water of the household was collected in terms of the seventeen categories viz. (i) bottled water, (ii) piped water into dwelling, (iii) piped water to yard/plot, (iv) piped water from the neighbour, (v) public tap/standpipe, (vi) tube well, (vii) hand pump, (viii) protected well, (ix) unprotected well, (x) public tanker truck, (xi) private tanker truck, (xii) protected spring, (xiii) unprotected spring, (xiv) rainwater collection, (xv) tank/pond, (xvi) other surface water (river, dam, stream, canal, lake, etc.) and (xvii) others (cart with small tank or drum, etc.). In Jharkhand, for half of the population, the principal source of drinking water is the hand pump. In urban Jharkhand piped water into dwelling<sup>1</sup> and tube well are the the principal source of drinking water for 27.3% and 21.7% of households respectively. In rural Jharkhand, 64.3% of household's principal source of drinking water is hand pump and approximately 25% of households' principal source of drinking water is a protected or an unprotected well.

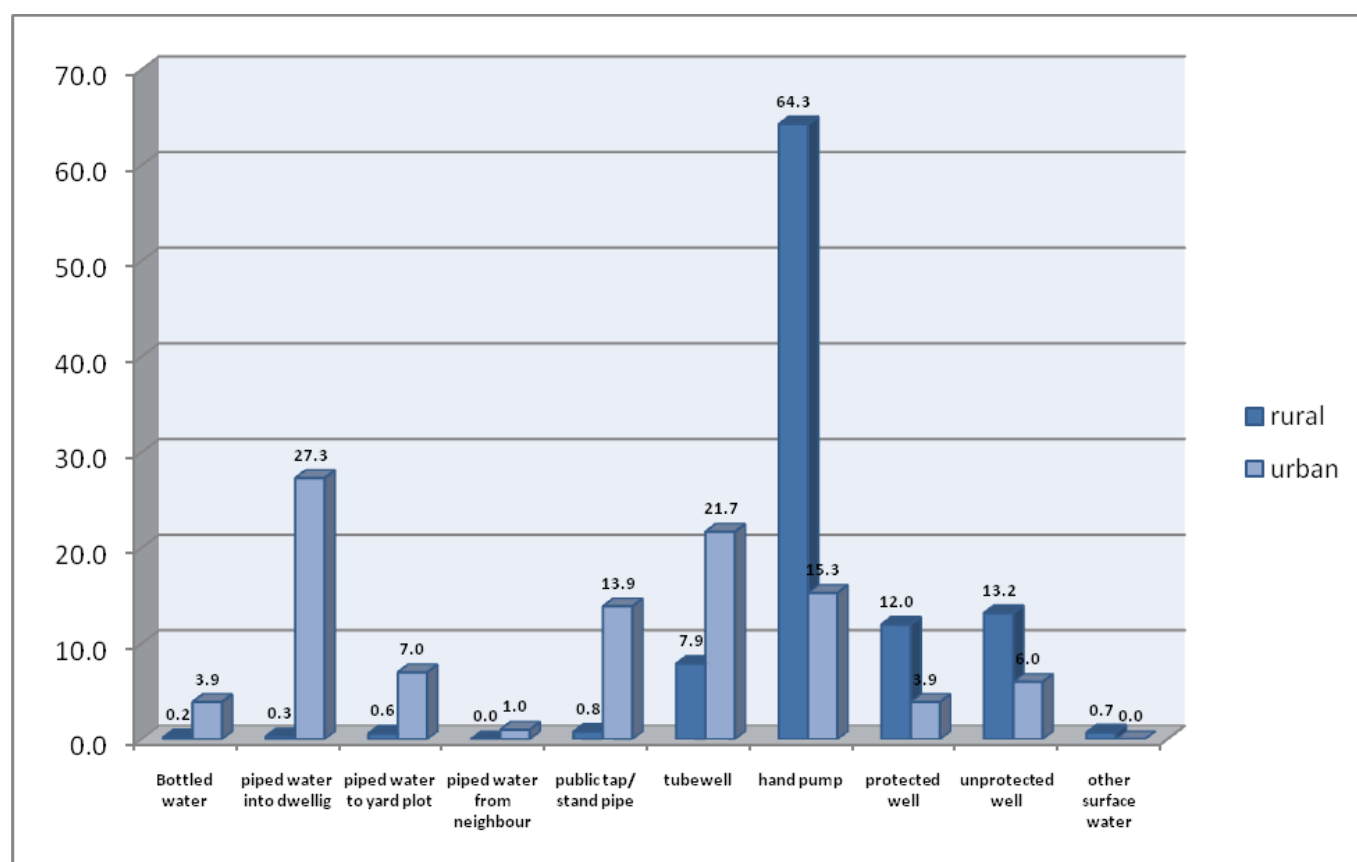
1. *If an arrangement was made by a corporation, the municipality, the Panchayat or other local authorities or any private or public housing estate or agency to supply water through pipe and if the sample household availed such facility for drinking, then such sources of drinking water were considered piped water. Piped water into dwelling was defined as a piped water connection to one or more taps to the dwelling unit (e.g., in the kitchen).*

**Table 5: Percentage distribution of households by principal source of drinking water of the household**

Principal source of drinking water	Percentage distribution of households		
	Rural Jharkhand	Urban Jharkhand	Jharkhand
Bottled water	0.2	3.9	1.1
pipd water into dwelling	0.3	27.3	6.9
pipd water to yard plot	0.6	7.0	2.1
pipd water from neighbor	0.0	1.0	0.3
public tap/stand pipe	0.8	13.9	4.0
Tube well	7.9	21.7	11.3
hand pump	64.3	15.3	52.3
protected well	12.0	3.9	10.0

unprotected well	13.2	6.0	11.4
public tanker truck	0.0	0.0	0.0
private tanker truck	0.0	0.0	0.0
protected spring	0.0	0.0	0.0
unprotected spring	0.0	0.0	0.0
rain water collection	0.0	0.0	0.0
Surface water: tank/pond	0.0	0.0	0.0
other surface water	0.7	0.0	0.5
others	0.0	0.0	0.0
all	100	100.0	100.0

*Note: Figure 0.0 indicates negligible percentage of households corresponding to particular principal source of drinking water.*



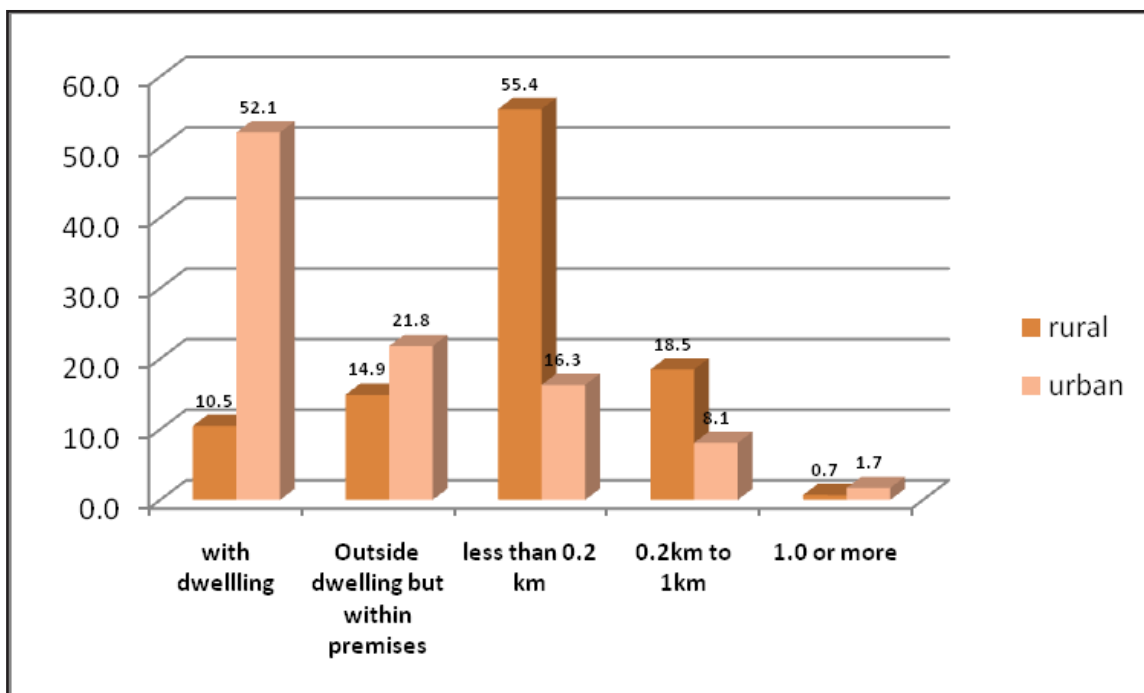
### Distance to Drinking Water in Jharkhand

In this survey, information on sufficiency of drinking water from the principal source, distance to the principal source of drinking water was collected. Approximately half of the households in urban Jharkhand have access to a principal source of drinking water within the dwelling unit<sup>2</sup>. They don't have to go anywhere to collect the water whereas in rural Jharkhand only 10.5% of households have the principal source of drinking water

within the dwelling unit. Among all the households for which the principal source of drinking water was outside the dwelling unit, only 15% of households in rural Jharkhand have access to a principal source of drinking water within the premises whereas in Urban Jharkhand this number stands at 22%. 46% of households in Jharkhand have access to a principal source of drinking water within less than 0.2km.

**Table 6: Percentage distribution of households by distance to the principal source of Drinking water**

Description of item		Rural	Urban	All
Percentage distribution of households by distance to the principal source of drinking water				
within dwelling		10.5	52.1	20.7
Outside dwelling but within premises		14.9	21.8	16.6
Outside premises at a distance of:	less than 0.2 km	55.4	16.3	45.7
	0.2 - 0.5 km	14.9	5.7	12.6
	0.5 - 1.0 km	3.6	2.4	3.3
	1.0 - 1.5 km	0.2	0.8	0.4
	1.5 km or more	0.5	0.9	0.6
All		100.0	100.0	100.0



<sup>2</sup> In this survey, the dwelling unit was defined as the accommodation availed of by a household for its residential purpose. It could be an entire structure or a part thereof or consisting of more than one structure. There might be cases of more than one household occupying a single structure such as those living in independent flats or sharing a single housing unit, in which case, the number of dwelling units was the same as the number of households sharing the structure.

## Access to Drinking Water in Jharkhand

In this survey, access to the principal source of drinking water was defined in terms of the prevailing situation of use of the source of drinking water and not the legal right to use. The information on access to the principal source of drinking water of the household was collected in terms of the eight categories viz. (i) exclusive use of household, (ii) common use of households in the building, (iii) neighbour's source, (iv) public source restricted to particular community, (v) public source unrestricted, (vi) private source restricted to particular community, (vii) private source unrestricted and (viii) others. The

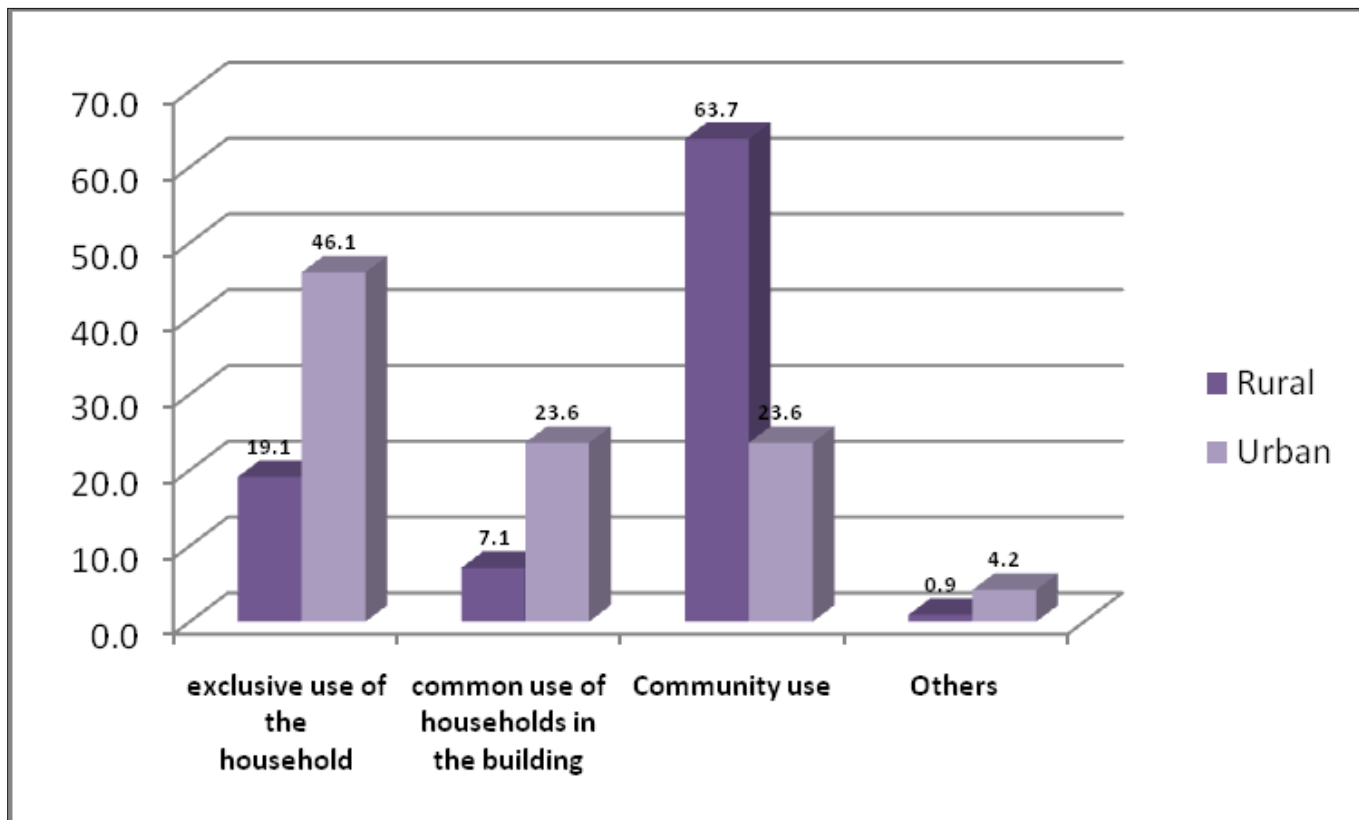
percentage distribution of households, at the all-India level, by access to the principal source of drinking water of the household as obtained from the survey is given below in Table 7. Urban Jharkhand has more households who have access to principal source of drinking water exclusive for them i.e. 46.1% in comparison to only 19% in Rural Jharkhand. Households having access to principal source of drinking water which is for community use is more prevalent in rural Jharkhand i.e. 63.7% as compared to 23.6% in urban Jharkhand.

**Table 7: Percentage of households by access to the principal source of drinking water of the household**

Access to principal source of drinking water		Percentage distribution of households		
		Rural	Urban	Jharkhand
exclusive use of the household		19.1	46.1	25.8
common use of households in the building		7.1	23.6	11.1
neighbour's source		6.9	2.5	5.8
Community use	public source restricted to particular community	1.6	0.9	1.4
	public source unrestricted	61.7	22.6	52.0
	private source restricted to particular community	0.4	0.1	0.4
	private source unrestricted	2.3	0.0	1.8
Other type of access		0.9	4.2	1.7
All		100	100	100

The percentage of households at the all-India level having improved principal source of drinking water located in the household premises (i.e., either within the dwelling or outside the dwelling but within the household premises) and water sufficiently available throughout the year is given below in Table 8. Information on time taken (in minutes) in a round trip for collection of drinking water from the principal source which was outside the household premises was also collected in this survey. The percentage of households at the all-India level having improved principal source of drinking water within 30 minutes for a round trip collection time as obtained

from the survey. In urban Jharkhand approximately 70% of the households have improved principal source of drinking water located in the household premises. Approximately 45% of households have exclusive access to improved principal source of drinking water located in the household premises in urban Jharkhand, while for rural Jharkhand it stands at 17%. In Jharkhand 22% and in rural Jharkhand and urban Jharkhand approx 16.4% and 38% of the households respectively have exclusive access to improved principal source of drinking water located in the household premises and water sufficiently available throughout the year.



**Table 8: Percentage of households having improved principal source of drinking water located in the household premises and water sufficiently available throughout the year**

Description of items	Percentage of households		
	Rural	Urban	Jharkhand
Households having improved principal source of drinking water located in the household premises	22.5	69.3	34.1
Households having improved principal source of drinking water located in the household premises and water sufficiently available throughout the year	21.5	60.6	31.1
Households having exclusive access to improved principal source of drinking water located in the household premises	17.0	44.1	23.7
Households having exclusive access to improved principal source of drinking water located in the household premises and water sufficiently available throughout the year	16.4	39.7	22.1
Households having improved principal source of drinking water within 30 minutes for a round trip collection	84.1	91.7	84.9

# Chapter 14

## Women, Child Development and Social Security







Women, children, the aged and the handicap constitute one of the most vulnerable groups in any society. The overall sex ratio in Jharkhand as per NFHS-4 stands at 1002 females per 1000 males but the sex ratio of the population under seven years of age is lower (920 females per 1,000 males). Considering the vulnerability of these groups a number of steps have been taken by the government of Jharkhand. While considering the status as far as education is concerned there is no gender disparity in school attendance in the 6-14 year age-group but the same does not hold in the age-group 15-17 years, where 65 per cent of girls compared to 69 per cent of boys attend school. In terms of literacy, only 59 per cent of women aged 15-49 are literate as against 80 per cent of men in the same age-group and only 16 per cent of women in the age-group of 15-49 in Jharkhand have completed 12 or more years of schooling. Nearly 71 per cent of women are anaemic and the prevalence of anaemia is particularly high among women of the rural areas, those who are lactating, women, illiterate women, and those belonging to scheduled tribes. A number of schemes currently running in the state meant for child welfare include state nutrition programme, ICDS, and the juvenile justice fund to name a few. *In addition to this, schemes meant for women include beti bachao beti padhao, mukhya mantri kanyadan yojana, mukhya mantri sukanya yojana, and Project Tejaswini.* A number of social security measures have also been taken by the government aimed towards the old, widowed and the handicapped.

### Introduction

The status of development of any civilized society can be gauged by the position held by its women. The fact that women constitute around 50 per cent of the state's population and 10.3 per cent of its total workforce makes it imperative that there be sufficient schemes for their upliftment. The government of Jharkhand along with the Central Government has in place a number of schemes meant for uplifting the status of women. Along with women children, constitute another vulnerable group who need special attention. Moreover, investment in child health, education and wellbeing garners return in the long run. The old and the *handicapped* form another group that need special care. The state has in place schemes for all these priority groups and is consistently striving towards the upliftment of this section of population. The state has taken many initiatives in this regard. The department of Women, Child Development and Social Security aims at formulation of gender

responsive budget in the state. In this regard, the department is regularly following up the objectives of gender responsive budgeting of the annual plan of all the departments of the state. The annual budget of 2020-21 of the department is strictly in the line of objectives of the gender responsive budgeting. The government of Jharkhand has introduced Child Budgeting in its annual Budget from financial year 2019-20. The department of Women, Child Development and Social Security is the nodal department for this purpose. The Department is closely working with other related department since the FY of 2020-21 to prepare Child Budget.

### Education

As per NFHS-4, the proportion of children in the age-group of 6-17 years attending school in Jharkhand stands at 84 per cent with the proportion being 87 per cent in the urban areas and 83 per cent in the rural areas. On the basis of age, school attendance is 91 per cent in the age-group 6-14 years, which drops to 67 per cent in the age-group 15-17 years. A positive observation in the state is that there is no gender disparity in school attendance in the 6-14 year age-group but the same does not hold true for the age-group 15-17 years, where 65 per cent of girls and 69 per cent of boys attend school. In terms of literacy only 59 per cent of women in the age-group 15-49 are literate as against 80 per cent of men in the same age-group. Only 16 per cent of women in the age-group 15-49 years are literate in Jharkhand have completed 12 or more years of schooling, compared to 25 per cent of men. As substantial as 38 per cent of women in the age-group 15-49 years have never been to school in contrast to 18 per cent of men belonging to the same age-group.

### Employment and earnings

As per the NFHS-4, 32 per cent of women in the age-group 15-49 years were found employed in the 12 months preceding the survey with 45 per cent of them engaged in non-agricultural occupations. As far as participation of women in decision making is concerned only 72 per cent of married women participate in decision-making related to their own health care needs, major household purchases and visits to their maternal families or relatives. However, only 3-8 per cent of women take these decisions on their own. Overall, most decisions are jointly made with their husbands in consonance. Thirteen per cent of women do not participate in making any of the three decisions. Moreover, participation in all the three decisions is directly related to is age. It increases with

age, rising sharply from 53 per cent among women aged less than 20 years to 75 per cent among women in the age-groups 30-49 years. Forty-five per cent of women have a bank or savings account that they themselves use.

### Status of Anaemia

Anaemia a condition that is marked by low levels of haemoglobin in the blood. It is a major issue in the state, both among children as well as women. Among children falling in the age group of 6 and 59 months, a substantial proportion (70 per cent) is anaemic.

Nearly 71 per cent of women are anaemic, including 31 per cent with mild anaemia, 38.6 per cent with moderate anaemia, and 1.1 per cent with severe anaemia. The prevalence of anaemia is particularly high among women in the rural areas, those who are lactating, illiterate and belong to the scheduled tribes.

**Table 14.1: Status of anaemia gauged by the level of haemoglobin**

Age/Sex	Mild	Moderate	Severe
Age in months			
6-11	28.4	52.9	0.8
12-23	30.0	50.7	2.3
24-35	33.6	36.6	1.1
36-47	31.8	30.0	0.5
48-59	32.4	23.7	0.5
Males	32.0	36.0	1.1
Females	31.1	38.6	1.1

Source: Department of Women, Child Development and Social Security, Government of Jharkhand

### Child Welfare

Child welfare is indispensable for the sustainable development of any economy as children constitute the future human capital. The different schemes meant for children running in the state are as follows:-

**1. State Nutrition Mission :-** State Nutrition Mission has been devised to prepare plans and implement existing plans effectively in co-ordination with all the departments working in the field of nutrition. The mission undertakes advocacy and awareness activities including social awareness, and IEC. It also runs innovative pilot schemes apart from community oriented nutritional programmes.

### The proposed outlay for the Annual plan 2020-21 is as follows :-

(Rs. in Lakh)

Particulars	Annual plan 2020-21
Proposed outlay	10.00
Flow to TSP	10.00

**2. Strengthening of Aganwadi centre (AWC):-** The AWC is an institution from where small children start their journey towards formal education. It is therefore imperative to provide these tiny tots a clean and hygienic environment at their centres. In addition to this low level of nutrition in the state a child also needs attention. A child's weight and height needs to be regularly measured in a proper way. This scheme provides availability of necessary infrastructure such as measuring tapes, fire extinguishers, carpets etc. The department intends to provide a bed, and a lighting conductor in every AWC.

All AWCs will also be equipped with LPG gas and cooking stoves which earlier were provided through a separate schemes.

### The Proposed Outlay for the Annual Plan 2020-21:-

(Rs. in Lakhs)

Particulars	Annual Plan 2020-21
Proposed outlay	1600.00
1. Flow to TSP	750.00

**3. Juvenile Justice Fund :-** Juvenile Justice Act-2017 provides for the creation of a fund called the Juvenile Justice Fund for the welfare and rehabilitation of children who fall under the act and its rules. The state government has to make adequate budgetary allocation towards the Juvenile Justice Fund.

Under the provision of the said Act, a scheme has been started to allocate adequate amount in the Juvenile Justice Fund from the FY, 2017-18.

### The Proposed Outlay for the Annual Plan 2020-21 is as follows:-

(Rs. in Lakhs)

Particulars	Annual Plan 2020-21
Proposed outlay	1.00
Flow to TSP	1.00

#### 4. PoshanAbhiyaan

Launched on 8<sup>th</sup> March 2018, Poshan Abhiyan (National Nutrition Mission) is India's flagship programme that envisages to tackle the multidimensional nature of malnutrition by adopting the prolonged strategies. The goals of Poshan Abhiyan are to achieve improvement in the nutritional status of children in the age group of 0 to 6 years, adolescent girls, pregnant women and lactating mothers in a time bound manner during the next three years beginning from 2017-18 with fixed targets as under:

- Prevent and reduce stunting in children (0- 6 years) at the rate of 2 per cent per annum
- Prevent and reduce under-nutrition (underweight prevalence) in children ( 0-6 years) at the rate of 2 per cent per annum
- Reduce Low Birth Weight (LBW) at the rate of 2 per cent per annum
- Reduce the prevalence of anaemia among young children (6-59 months) at the rate of 3 per cent per annum
- Reduce the prevalence of anaemia among women and adolescent girls in the age-group of 15-49 years at the of rate 3 per cent per annum
- Bring down stunting of children in the age-group of 0-6 years from 38.4per cent to 25 per cent by the year 2022

#### The different schemes meant for the development of women and girl child are as follows:-

**Beti Bachao Beti Padhao Scheme:** Beti Bachao Beti Padhao scheme aims to bring an improvement in the Sex Ratio at Birth (SRB) in the short term while improving Child Sex Ratio (CSR) in the long term with manifestation of over-all development such as improved health and nutrition, gender parity in education, better sanitation, opportunities and removal of asymmetries between the genders. The multi-sectoral action in districts works on effective implementation and monitoring of PC and PNDT Act. Promotion of early registration of pregnancy, institutional deliveries and registration of births by the Ministry of Health and Family Welfare also falls under the scheme. Making schools girl-friendly i.e. enrolment of girls in schools, their retention in secondary schools, and availability of functional toilets, are also looked into. Awareness-generation, advocacy, community-mobilization and training of stakeholders, local champions, rewards to institutions and frontline

workers are other task encompassed init.

**Scheme for Adolescent Girls (SAG)-** Scheme for Adolescent Girls aims at the all-round development of adolescent girls who are not enrolled in schools. It is implemented through the Anganwadi Centres (AWCs). The nutritional component aims at improving the health and nutritional status of adolescent girls. Girls in the age-group of 11-14 years who are attending AWCs are provided with supplementary nutrition, protein and micronutrients for 300 days in a year. Nutrition is given in the form of Take Home Ration (THR) or Hot Cooked Meals.

The non nutritional component addresses the developmental needs of adolescent girls. In this, school going girls of age-group 11-14 years are provided with Iron and Folic Acid (IFA) supplementation, health check-up & referral services, nutrition & health education, counselling/guidance on family welfare, life skill education, guidance on accessing public services and vocational training. It also aims at mainstreaming children who are not studying in school.

#### Tejaswini Project

Department of Women, Child Development and Social Security, Government of Jharkhand is implementing Tejaswini Project for the Socio-Economic Empowerment of Adolescent Girls and Young Women (AGYW) in 17 selected districts of Jharkhand. The project is being implemented through Jharkhand Women Development Society, an autonomous body under the department. The duration of the Project is five (5) years and its objective is to improve the completion of market-driven skills training and secondary education for adolescent girls and young women in the identified districts of the state. In two districts viz: Ramgarh and Dumka, intensive interventions are being done. The remaining 15 districts have been clustered into 05 zones which are as follows.

S. No.	Zone	Districts
1	I	Palamu, Chatra ,Koderma
2	II	Latehar, Lohardaga, Khunti
3	III	East Singhbhum, Saraikela-Kharsawan, Simdega
4	IV	Bokaro, Dhanbad, Jamtara
5	V	Godda, Deoghar ,Pakur

**The progress in the implementation of the project is as follows:**

S. No.	Progress Indicators	Status of achievement
1	Tejaswini Project roll-out	All the 17 districts
2	Tejaswini Club to be constituted	12839
3	Tejaswini Club constituted	12838
4	AGYW Registered in Tejaswini Clubs	1167317
5	AGYW being imparted with Life Skills at present	545153

**The Proposed Outlay for the Annual Plan 2020-21 :-**  
(Rs. In Lakhs)

Particulars	Annual Plan 2015-16
Proposed outlay	19077.00
Flow to TSP	10209.26

**WOMEN’S WELFARE**

**Mukhyamantri Kanyadan Yojana:-** From financial year 2007-08 onwards this scheme is being executed by the Department of Women, Child Development and Social Security. Under this scheme newly married women belonging to families of the income group of not more than Rs. 72000/- or in the BPL category are given Rs. 30000/- through the DBT.

**The Proposed Outlay for the Annual plan 2020-21 :-**  
(Rs. In Lakhs)

Particulars	Annual Plan 2020-21
Proposed outlay	3000.00
Flow to TSP	1450.000
Flow to SCSP	300.000

**Samajik Kuriti Niwaran Yojana - The Scheme will include:**

- i. Eradication of the practice of witch hunting- The Department of Women, Child Development and Social Security runs a number of awareness-generation programmes for the eradication of

social evils like the practice of witch hunting.

- ii. Grants for mass funeral
- iii. Incentive/grants for the promotion of dowry free community marriages.

**The Proposed Outlay for the Annual Plan 2020-21 is as follows :-**

(Rs. In Lakhs)

Particulars	Annual Plan 2020-21
Proposed Outlay	192.000
Flow to TSP	104.000

**Additional Honorarium to Anganwadi Workers/Helpers** Under this scheme additional honorarium is paid to the Anganwadi Workers/ Helpers from the State fund in addition to the one granted by the Government of India. The new rate of additional honorarium is Rs. 1900.00, Rs. 950.00 and Rs. 1200.00 for Workers, Helpers and Mini AWW respectively. It has been effective from 01-11-2019.

**The Proposed Outlay for the Annual Plan 2020-21 :-**  
(Rs. In Lakhs)

Particulars	Annual plan 2020-21
Proposed outlay	12700.000
Flow to TSP	6540.000

**Mukhya mantri Sukanya Yojana:-** Since 2011-12, the Government of Jharkhand has been implementing Mukyamantri Laxmi Ladly Yojana for the purpose of protection, education and secure future of the girl child. It has been observed that there is a huge time gap between the time of expenditure by the government and that when the beneficiaries obtain the actual benefit. The number of beneficiaries as on date is nil.

Keeping this issue in consideration, the department has introduced the Mukyamantri Sukanya Yojana in order to fulfil the objective involved in the Mukhyamantri Laxmi Laldly Yojana on an instant basis. This scheme will provide financial assistance to the girl child from birth till the age of 20 years. The benefit will be given from time to time on the following basis.

- Rs. 500 shall be credited directly into the account of the mother at the time of the birth of the girl child.

- Rs. 500 shall be credited directly into the bank account of the girl child once she obtains admission in class-I, on passing class V, VII, X<sup>th</sup> and XII<sup>th</sup>
- Rs. 10000 directly into the bank account of the girl child of 18-20 years of age after attaining the age of 18 years and gets enrolled into the voter list.

**The Proposed Outlay for the Annual Plan 2020-21 :-  
(Rs. In Lakhs)**

Particulars	Annual plan 2020-21
Proposed outlay	11600.000
Flow to TSP	5820.00
Flow to SCSP	880.00

The outlay under different schemes as per the annual plan 2020-21 is presented under table given below.

**Table 14.2: Outlay on different schemes as per the Annual Plan 2020-21**

Particulars	Annual plan 2020-21
<b><u>Women Help Line Scheme</u></b>	
Proposed outlay	100.00
Flow to TSP	100.00
<b><u>Beti Bachao Beti Padhao</u></b>	
Proposed outlay	20.00
Flow to TSP	10.40
<b><u>One Stop Centre</u></b>	
Proposed outlay	20.00
Flow to OSP	10.00
<b><u>Scheme for the Implementation of Persons with Disability</u></b>	
Proposed outlay	3000.00
Flow to OSP	1800.00

**Status of Social Security Schemes**

The ongoing social security schemes in the state are mentioned below:-

**1. Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana:-** In this scheme, an amount of Rs. 600 per month is granted to all the disabled persons above 5 years of age. The department also intends to cover the beneficiaries left out by taking/launching special drives for this purpose. From the FY. 2020-21 the monthly pension amount is proposed to be increased from Rs. 600 to Rs. 1000.

**The Proposed Outlay for the Annual Plan 2020-21:-  
(Rs. in Lakh)**

Particulars	Annual plan 2020-21
Proposed Outlay	18000.000
Flow to TSP	7200.000
Flow to SCSP	1800.000

**2. Mukhyamantri State Old Age Pension Scheme:-** Under this scheme widows, disabled persons, released bonded labourers (above the age of 18 years) and helpless persons of 60 years and above, belonging to the BPL families as well as the non-BPL families whose annual income is less than Rs. 10500/- in rural areas and Rs. 12500/- in the urban areas are getting pension at the revised rate of Rs. 1000 per month per person from the FY-2019-20 which is to be borne by the state govt.

**The Proposed Outlay for the Annual Plan 2020-21:-**

**(Rs. in Lakh)**

Particulars	Annual plan 2020-21
Proposed outlay	44238.000
Flow to TSP	20240.00
Flow to SCSP	6060.00

**3. Mukhyamantri State Pension Scheme for Primitive Tribal Group.** It has been observed that not all the tribal communities of Jharkhand are at the same level of development and in order to foster the same, certain groups were identified as the poorest of the poor among the STs and were called Primitive Vulnerable Tribal Groups or PVTGs. They are vulnerable primarily due to their shyness and unawareness of the outside world. The literacy level of these communities is very low i.e. less than 5 per cent. Eight tribes have been classified as Primitive Vulnerable Tribal Groups. One person from each of these eight identified primitive vulnerable tribal

families namely Asur, Birhia, Birhor, Birjia, Korwa, Mal Paharia, Sauria Paharia and Savar, are entitled to get a monthly pension at the revised rate of Rs. 1000 under this scheme.

**The Proposed Outlay for the Annual Plan 2020-21 :-**  
(Rs. in Lakhs)

Particulars	Annual plan 2020-21
Proposed outlay	7200.00
Flow to TSP	5580.00

**4. Mukhyamantri Rajya Vidhwa Samman Pension Yojana :-** In order to provide financial support to the widows of in the state who are above 18 years of age, the department gives pension to the beneficiaries at the revised rate of 1000/- per month from the FY-2019-20.

**The Proposed Outlay for the Annual Plan 2020-21:-**  
(Rs. in Lakhs)

Particulars	Annual Plan 2020-21
Proposed outlay	21840.00
Flow to TSP	10560.00
Flow to SCSP	3000.00

**5. MukhyamantriState Pension scheme for HIV/AIDS Affected persons:-**In order to provide financial support to the HIV/AIDS affected persons of the state cutting across categories, the Department gives a

pension of 1000/- per month to the beneficiaries from the FY. 2019-20.

**The Proposed Outlay for the Annual Plan 2020-21:-**

(Rs. in Lakhs)

Particulars	Annual Plan 2020-21
Proposed outlay	480.00
Flow to TSP	168.00
Flow to SCSP	60.00

**6. BLANKET AND CLOTHES DISTRIBUTION -** Under this scheme blankets/clothes are distributed among the poor (who are below the poverty line), beggars, disabled persons and other helpless people who are in need. Till the financial year 2018-19, this scheme was executed by the Labour Department. However, the FY-2019-20 the scheme is being implemented by the Women and Child Development Department.

**The Proposed Outlay for the Annual Plan 2020-21 :-**  
(Rs. in Lakhs)

Particulars	Annual Plan 2020-21
Proposed outlay	2164.00
Flow to TSP	1038.00
Flow to SCSP	238.00

The target and coverage of beneficiaries under the

various social security schemes has improved consistently in the period beginning from 2016-17 till 2020-21 under all the different schemes running in the state as mentioned in table given below.

**Table 14.3:- Target and Coverage of Beneficiaries under various Social Security Schemes**

SI NO.	Name of the Scheme Name	Financial Year	No. of Targets	No. Of coverage under beneficiaries	In percentage
1	Indira Gandhi National Old Age Pension Scheme (60-79 Yrs)& (80+ Yrs)	2016-17	993567	696280	70.1
		2017-18	993567	904270	91.0
		2018-19	993567	918609	92.5
		2019-20	1014800	1030545	101.6
		2020-21	1059712	1013993	95.7
2	Indira Gandhi National Widow Pension Scheme (40-79 Yrs)	2016-17	272108	267075	98.2
		2017-18	272108	266083	97.8
		2018-19	272108	257171	94.5
		2019-20	272108	270542	99.4
		2020-21	275000	267782	97.4

SI NO.	Name of the Scheme Name	Financial Year	No. of Targets	No. Of coverage under beneficiaries	In percentage
3	Indira Gandhi National Disability Pension Scheme (18-79 Yrs)	2016-17	31286	19953	63.8
		2017-18	31286	21269	68.0
		2018-19	31286	24778	79.2
		2019-20	31286	25552	81.7
		2020-21	31286	26243	83.9
4	National Family Benefit Scheme	2016-17	14025	6377	45.5
		2017-18	14025	5831	41.6
		2018-19	10000	4880	48.8
		2019-20	10000	2305	23.1
		2020-21	10000	1518	15.2
5	Mukhya Mantri State Social Security Pension Scheme	2016-17	300000	276723	92.2
		2017-18	300000	289084	96.4
		2018-19	300000	332280	110.8
		2019-20	350000	347171	99.2
		2020-21	365000	373652	102.4
6	Mukhya Mantri Pension scheme for the Primitive Tribal Groups	2016-17	65000	34823	53.6
		2017-18	65000	39028	60.0
		2018-19	65000	50489	77.7
		2019-20	65000	52432	80.7
		2020-21	65000	55142	84.8
7	Mukhya Mantri Rajya Vidhwa Samman Pension Yojana	2016-17	180000	106828	59.3
		2017-18	180000	132653	73.7
		2018-19	180000	165902	92.2
		2019-20	157000	172508	109.9
		2020-21	182000	178169	97.9
8	Mukhya Mantri State Pension Scheme for the HIV/AIDS Affected persons	2016-17	1388	1434	103.3
		2017-18	3000	2033	67.8
		2018-19	3000	2796	93.2
		2019-20	4000	3459	86.5
		2020-21	4000	3655	91.4
9	Swami Vivekananda Nihshakt-SwawlambanProtsahanYojna (SVNSPY)	2016-17	173291	139991	80.8
		2017-18	181853	171729	94.4
		2018-19	163163	171535	105.1
		2019-20	282958	101459	35.9
		2020-21	150000	152991	102.0
10	Blanket and Cloth Distribution (Scheme was Run by Department of Labour, Employment and Training)	2019-20	1113705	1234628	110.9
		2020-21	721400	817661	113.3

Source: Department of Women, Child Development and Social Security, government of Jharkhand



**New Scheme**

**National Action Plan for the Welfare of Senior Citizens (NAPSRc)**- The National Action Plan for Welfare of Senior Citizens (NAPSRc), 2019-25 was conceptualized and rolled out from the Financial Year-2019-20 by the Government of India. The Action Plan is based on the National Policy for Older Persons, 1999 and Maintenance and Welfare of Parents and Senior Citizens (MWPSA) Act, 2007.

The Plan lays down the vision, mission and the course of action of the government for the welfare and well-being of the senior citizens of the country. The NAPSRc includes various components like financial security, awareness generation and capacity building, research and study, project management, protection of life and property of the senior citizens etc. It encompasses the needs of senior citizens which are required to create an eco-system where they can age gracefully and live a life of dignity.

**In the light of the above mentioned plans, a Central Sector Scheme titled National Action Plan for Senior Citizens (NAPSRc) is proposed to start in the bigin from the FY- 2020-21.**

**(Rs. in Lakhs)**

Particulars	Annual plan 2020-21
Proposed outlay	100.00
Flow to TSP	54.00

**Welfare of the Differently Abled**

This scheme shall include -

- i. Special equipment for the disabled,
- ii. Organizing workshops for the disabled,
- iii. Conducting economic and social survey of the disabled
- iv. State fund for the Disabled - A centralized fund to be used as and when required for the welfare of the differently abled.
- v. Scholarship to the handicapped students: - Disabled student (from class I to the post-graduate level) studying in institutions, school and colleges run by the state government or the NGOs will be provided scholarship.

**The Proposed Outlay for the Annual Plan 2020-21**

**(Rs. in Lakhs)**

Particulars	Annual Plan 2020-21
Proposed outlay	521.00
Flow to TSP	256.000
Flow to SCSP	48.000

**OPERATION, CONSTRUCTION & RENOVATION SCHEMES**

**1. Construction of schools/rehabilitation centres/ hostels/ homes etc. :-** Under this scheme, the government will construct new special schools, rehabilitation centres, working women’s hostels, old age homes, after care homes, observation homes, children’s homes etc. to fulfill

the mandate of the department of providing shelter to the aged persons, widow, destitute, victim of trafficking and other beneficiaries who are in need of such shelters and educational institutions. This will include the construction of working women’s hostels, old age homes, nari niketan and open shelters for trafficked children and other such buildings which are necessary for providing the requisite shelter to the deprived sections of society.

**The Proposed Outlay for the Annual Plan 2020-21- (Rs. in Lakhs)**

Particulars	Annual Plan 2020-21
Proposed outlay	300.000
Flow to TSP	150.000

**2. Renovation & supply of material to Schools/ Rehabilitation Centre/Hostels/Homes etc.:-**This scheme will help to provide the necessary infrastructure and other supplies required for the smooth operation and maintenance of the shelter and educational institutions as mentioned in the previous scheme including their repair and renovation. This will include providing video conferencing facilities in all the JJB courts and remand homes.

**The Proposed Outlay for the Annual Plan 2020-21-**

**(Rs. in Lakhs)**

Particulars	Annual Plan 2020-21
Proposed outlay	234.000
Flow to TSP	117.000

**INSTITUTIONAL SCHEMES**

Under the Department of Women, Child Development and Social Security there are some institutions which have been created under various mandates and policies of the Central and the State Governments. Such institutions include the State Women's Commission, Jharkhand State Child Rights Protection Commission, Social

welfare Board and the Office of the State Disability Commissioner.

**1. Establishment of the Different State Commissions, Boards, etc.-**This scheme comprises of the administrative and other expenses of -

- i. State Women’s Commission.
- ii. State Social Welfare Board.
- iii. Jharkhand State Child Rights Protection Commission.

**The Proposed Outlay for the Annual Plan 2020-21- (Rs. in Lakhs)**

Particulars	Annual Plan 2020-21
Proposed Outlay	380.00
Flow to TSP	380.00

**2. Establishment of the office of the Disability Commissioner:** - The govt. has set up an independent office of the state disability commissioner in accordance with the provision of persons with disability (Equal opportunities, protection of rights and full participation) Act 1995 to implement the act in spirit and to look after the problems of the people with disabilities in the state. The department provides the establishment cost of the office.

**The Proposed Outlay for the Annual Plan 2020-21 :- (Rs. in Lakhs)**

Particulars	Annual Plan 2020-21
Flow to TSP	88.000

**Miscellaneous**

1. Capacity Building, Monitoring and Exhibitions, Seminars, etc. This scheme includes the following programmes :-

- i. Establishment of Real time Monitoring Cell,
- ii. Different Training Programmes for the Departmental Staff and Officers,
- iii. Exhibitions, Seminars, Conferences, Awards & Enactment of different Acts,

**The Proposed Outlay for the Annual Plan 2020-21- (Rs. in Lakhs)**

Particulars	Annual plan 2020-21
Proposed outlay	164.000
Flow to TSP	84.000

**2. Operation of Schools/Rehabilitation Centres/ Hostels/ Homes etc. :-** The department of Women, Child Development and Social Security is fully devoted to the welfare of the weaker section of the society. In order to fulfil the requirements of the aged, the differently abled, destitutes, dejected women and orphans, the govt. runs various types of schools and homes like old age homes, deaf & dumb schools, spastics school, blind school, halfway homes, children’s homes, after care homes, remand homes, nari niketans, working women’s hostel etc.

**Proposed Outlay for the Annual Plan pertaining to the operation of all these types of schools/ homes 2020-21 (Rs. in Lakhs)**

Particulars	Annual plan 2020-21
Proposed outlay	872.000
Flow to TSP	450.00

**Table 14.4: ONGOING CENTRALLY SPONSORED SCHEMES**

Particulars	Annual Plan 2020-21	
	Central Share	State Share
<b><u>Establishment of Anganwadi Services (00:100,25:75,60:40)</u></b>		
Proposed outlay	26800.00	28300.00
1. Flow to TSP	13305.50	14816.83
<b><u>Establishment of Anganwadi Services (00:100,25:75,60:40)</u></b>		
Proposed outlay	0.60	0.40
1. Flow to TSP	0.30	0.20
<b><u>Pre-School Kits (60:40)</u></b>		
Proposed outlay	1200.000	800.00
1. Flow to TSP	618.000	412.00
<b><u>Uniform to AWWs (60:40)</u></b>		
Proposed outlay	407.00	271.00
1. Flow to TSP	212.00	141.00
<b><u>Training Programme (STRAP) (60:40)</u></b>		
Proposed outlay	322.00	215.00
1. Flow to TSP	168.00	112.00
<b><u>Child Protection Services</u></b>		
Proposed outlay	3000.00	2347.00
1. Flow to TSP	1628.08	1270.71
<b><u>Pradhan Mantri Matru Vandana Yojana (PMMVY) (60:40)</u></b>		
Proposed outlay	700.00	2800.00
1. Flow to TSP	405.69	1390.46
<b><u>Swadhar Greh Scheme(60:40)</u></b>		
Proposed outlay	231.00	154.00
1. Flow to TSP	115.50	77.00
<b><u>Scheme for Adolescent Girls (SAG) -Non Nutritional Programme (60:40)</u></b>		
Proposed outlay	150.00	100.00
1. Flow to TSP	78.00	52.00
<b><u>Scheme for Adolescent Girls (SAG)- SNP (50:50)</u></b>		
Proposed outlay	397.00	397.00
1. Flow to TSP	189.60	189.60
2. Flow to SCSP	43.45	43.45
<b><u>Supplementary Nutrition (Pregnant and Lactating Women &amp; Children) (50:50)</u></b>		
Proposed outlay	31100.00	31100.00
1. Flow to TSP	14800.00	14800.00
2. Flow to SCSP	3000.00	3000.00
<b><u>National Creche Scheme (60:40)</u></b>		
Proposed outlay	263.00	132.00
1. Flow to TSP	136.76	68.64
<b><u>Ujjawala (60:40)</u></b>		
Proposed outlay	75.00	50.00
1. Flow to TSP	39.00	26.00
<b><u>POSHAN ABHIYAN (80:20)</u></b>		
Proposed outlay	8648.00	2162.00
1. Flow to TSP	4812.00	1203.00

Particulars	Annual Plan 2020-21	
<b><u>Mahila Shakti Kendra (60:40)</u></b>		
Proposed Outlay	2600.00	1800.00
1. Flow to TSP	1373.37	945.70
<b><u>Construction/Maintenance/Up-gradation of AWCs under AWC (60:40)</u></b>		
Proposed Outlay	360.00	240.00
1. Flow to TSP	198.00	132.00
<b><u>Construction of Working Women's Hostel (60:40)</u></b>		
Proposed outlay	300.00	200.00
1. Flow to TSP	150.00	100.00
<b><u>Indira Gandhi National Old Age Pension Scheme (60-79 Yr.) (200:800)</u></b>		
Proposed Outlay	23755.00	95021.00
1. Flow to TSP	10181.00	40724.00
2. Flow to SCSP	3126.00	12507.00
<b><u>Indira Gandhi National Old Age Pension Scheme (above 80 years.) (300:700)</u></b>		
Proposed Outlay	4831.00	4831.00
1. Flow to TSP	1970.00	1970.00
2. Flow to SCSP	770.17	770.17
<b><u>Indira Gandhi National Widow Pension Scheme (300:700)</u></b>		
Proposed Outlay	9999.00	23331.00
1. Flow to TSP	4451.00	10383.00
2. Flow to SCSP	1454.00	3394.00
<b><u>Indira Gandhi National Disability Pension Scheme (300:700)</u></b>		
Proposed Outlay	1138.00	2655.00
1. Flow to TSP	386.00	900.00
2. Flow to SCSP	162.70	380.00
<b><u>National Family Benefit Scheme (100 per cent)</u></b>		
Proposed Outlay	2000.00	
1. Flow to TSP	900.00	
2. Flow to SCSP	300.00	
<b><u>Mahila Police Volunteers (MPV)</u></b>		
Proposed Outlay	120.00	80.00
1. Flow to TSP	62.00	42.00
<b><u>National Action Plan for Drug Demand Reduction (100 per cent)</u></b>		
Proposed Outlay	170.00	
1. Flow to TSP	694.00	
<b><u>National Action Plan for the Welfare of Senior Citizens (NAPSrC) (100per cent)</u></b>		
Proposed Outlay	100.00	
1. Flow to TSP	54.00	
<b><u>Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana</u></b>		
Proposed Outlay	18000.000	
1. Flow to TSP	7200.000	
2. Flow to SCSP	1800.000	

## Conclusion

The government of Jharkhand is committed towards ensuring all round development of women, children aged and the handicapped. For this, the government is working both independently as well as in consonance with the Central Government to take necessary steps in

this direction. There are many steps being taken to ensure their upliftment. These steps shall not only improve their status of health and education but also contribute towards the economic development of these priority groups.

**Annexure 14.1**

**The Fertility Transition**

**Introduction**

With the establishment of modern economic growth, fertility has tended to decline, first across high income countries starting largely in the last quarter of the nineteenth century, and then occurring even more rapidly across most low-income countries in the last quarter of the twentieth century (Kuznets, 1966; Schultz, 1981). Economic models of the allocation of time and wealth of families among production and consumption activities suggest several hypotheses linking changes in the economic environment in which people live to their reproductive demands and fertility (Becker, 1960; Mincer, 1963). Empirical counterparts for the price, income, and environmental constraints on people’s fertility choices have been used to explain aspects of fertility and other related outcomes of the family, strengthening the view that this household demand model is a source of insights into the determinants of the historic fertility transition (T.W. Schultz, 1974; Becker, 1981).

Notestein (1945) described the early dimensions of the demographic transition<sup>1</sup>, and speculated on the economic pressures which he expected to reduce fertility in the low-income world: rising cost of children in urban life, individualistic promotion of child health and education. Economic growth might also directly influence fertility decisions. In the classic Barro–Becker model (Becker, 1981; Barro and Becker, 1989), fertility choice is due to opportunity costs as increased wages for women result in less time spent on child bearing and child rearing.

There appears to be a widespread view that the spread of education, rising levels of living, urbanization and economic development in general would automatically bring about reduction in fertility and consequently achieve a population balance.

We use NFHS-IV which has detailed birth histories and we compute fertility rates, change in fertility rate over the period of time and various factors affecting it. A birth history collects the dates of all the births a woman has had in her life, starting from her first birth until the

1. The “demographic transition” refers to a sequence of three periods. Stage 1: This is a state of high birth and death rates culminating in low population growth overall. Stage 2: With a consistently high birth rate and decreasing death rate, population growth surges. Stage 3: As the birth rate falls and the death rate remains low, the population continues to increase.

time of the survey. In NFHS, both the year and month of birth are recorded, and additional information on child survival is also collected. Birth histories are usually collected from a sample of women aged 15-49 at the time of the survey.

We use Poisson regression to compute fertility rates. Poisson regression is a generalized linear model in which the conditional distribution of the dependent variable is Poisson and the link function is logarithmic. It is used to analyse count data, such as number of births. In the Poisson model, the probability that the random variable  $Y_i$  is equal to the observed number of births ( $y_i$ ) is assumed to follow a Poisson distribution, with mean  $\mu_i$  (Winkelmann et al, 1994; Trussell and Rodriguez, 1990).

$$P(Y_i = y_i | \mu_i) = \frac{\exp(-\mu_i) \mu_i^{y_i}}{y_i!} \text{----- (1)}$$

The mean  $\mu_i$  can be decomposed into the product of a fertility rate ( $\lambda_i$ ) and exposure ( $t_i$ ).

$$\mu_i = \lambda_i t_i \text{----- (2)}$$

Taking the logarithm of this expression, it becomes:

$$\log(\mu_i) = \log(\lambda_i) + \log(t_i) \text{----- (3)}$$

The regression model consists in modeling the logarithm of rates ( $\lambda_i$ ) as a linear combination of independent variables. Independent variables include a function of age and possibly additional covariates:

$$\log(\mu_i) = \alpha + f(\text{age}) + g(\text{covariates}) \text{----- (4)}$$

The Poisson regression that is estimated can be written as follows:

$$\log(\mu_i) = \log(t_i) + \alpha + f(\text{age}) + g(\text{covariates}) \text{----- (5)}$$

After fitting the model in Eq.5, rates can be computed directly as the product of the exponentials of the functions of age and covariates (regression coefficients).

$$\lambda_i = \exp[f(\text{age})] * \exp[g(\text{covariates})] \text{----- (6)}$$

### Age-specific Fertility Rates and TFR

According to UN definition the age-specific fertility rate measures the annual number of births to women of a specified age or age group per 1,000 women in that age group.

Classical indicators of fertility (rates, TFRs) can be obtained from the regression coefficients of a Poisson regression (as well as their standard errors) in which age groups are the only independent variables.

$$\log(\mu_i) = \log(t_i) + \alpha + \sum_{k=20-24}^{45-49} \beta \cdot A_{ki}$$

$\alpha$  is the constant term,  $A_{ki}$  are dummy variables for the 6 age groups from 20-24 to 45-49; the first age group (15-19) is the reference category.

$$\lambda_i = \exp[\alpha + \sum_{k=20-24}^{45-49} \beta \cdot A_{ki}]$$

Type equation here.

Predicting fertility rates for a specific age group (e.g., 25-29 years) is straightforward. The dummy variable  $A$  is equal to 1 for the specific age group and 0 for the other age groups; the rate is then just equal to the exponential of the sum of the constant and the coefficient of the 25-29 age groups.

$$\lambda_{25-29} = \exp[\alpha + \beta_{25-29}]$$

The total fertility rate (15-49) is equal to 5 times the sum of age-specific fertility rates.

$$TFR = 5 * (\exp[\alpha] + \sum_{k=20-24}^{45-49} \exp[\alpha + \beta_k])$$

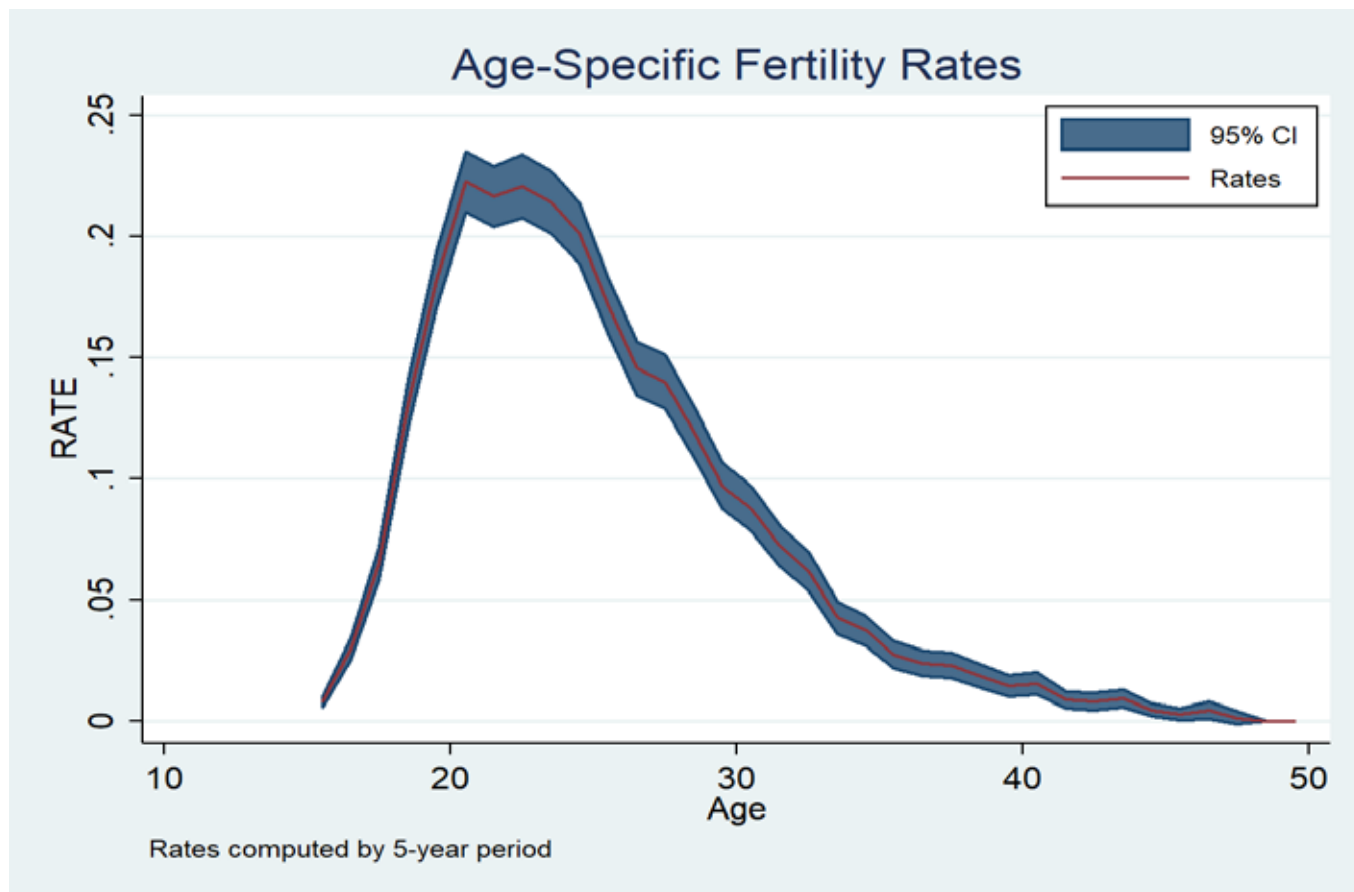
**Table 1: Age-specific fertility rates**

Events	Coef.	Std. Err.	Z	P> z	[95% conf.	Interval
Rate_1519	.0770729	.0027233	28.30	0.000	.0717301	.0824157
Rate_2024	.2138802	.0038827	55.09	0.000	.2062629	.2214975
Rate_2529	.1310557	.003177	41.25	0.000	.124823	.1372885
Rate_3034	.058303	.0026301	22.17	0.000	.0531431	.063463
Rate_3539	.0194958	.0015829	12.32	0.000	.0163904	.0226011
Rate_4044	.0074475	.0010377	7.18	0.000	.0054117	.0094833
Rate_4549	.001857	.0006414	2.90	0.004	.0005987	.0031152
TFR	2.545561	.0398389	63.90	0.000	2.467402	2.623719

An age-specific fertility rate is computed as a ratio. The numerator is the number of live births to women in a particular age group during a period of time, and the denominator an estimate of the number of person-years lived by women in that same age group during the same period of time. It is expressed as births per 1,000 women. The following seven five-year age groups by age of mother at time of birth are presented in the data base: 15 to 19; 20 to 24; 25 to 29; 30 to 34; 35 to 39; 40 to 44; and 45 to 49. Fertility rate is highest among women of age group 20-24. Rate per women at age 15-19 is 0.770, 0.213 at age 20-24, 0.131 at age 25-29, 0.058 at age 30-34, 0.019 at age 35-39, 0.007 at age 40-44 and 0.001 at age 45-49.

The TFR is the most widely used fertility measure in program impact evaluations for two main reasons: (1) it is unaffected by differences or changes in age-sex composition, and (2) it provides an easily understandable measure of hypothetical completed fertility. TFR includes only live births. TFR of Jharkhand is 2.5.

Figure 1: Age-specific fertility rates



We can see from fig 1 that fertility rate is highest for the age group 20 to 24. According to UN the mean age at childbearing is the mean age of mothers at the birth of their children if women were subject throughout their lives to the age-specific fertility rates observed in a given year. Early childbearing

reduces the likelihood of a girl advancing her education and thus limit any opportunities in the labour market. We can see from table 2 that mean age at childbearing is 25 which means women are waiting until 25 years on an average in Jharkhand to begin childbearing.

Table 2: Mean age at childbearing

Events	Coef	Std Err	z	P> z	95% Confidence interval	
mean age at childbearing	25.13	0.0746	336.86	0.000	24.98728	25.27975

**Adolescent (age group 15-19) fertility rates over 15 years**

The adolescent fertility rate is defined as the number of births per 1,000 women ages 15 to 19. According to ‘Population Reference Bureau’ having children early in life exposes adolescent women to unnecessary risks. Their chance of dying is twice as high as that of a woman who waited until her 20s to begin childbearing. We can see there is steep decline in fertility rates since

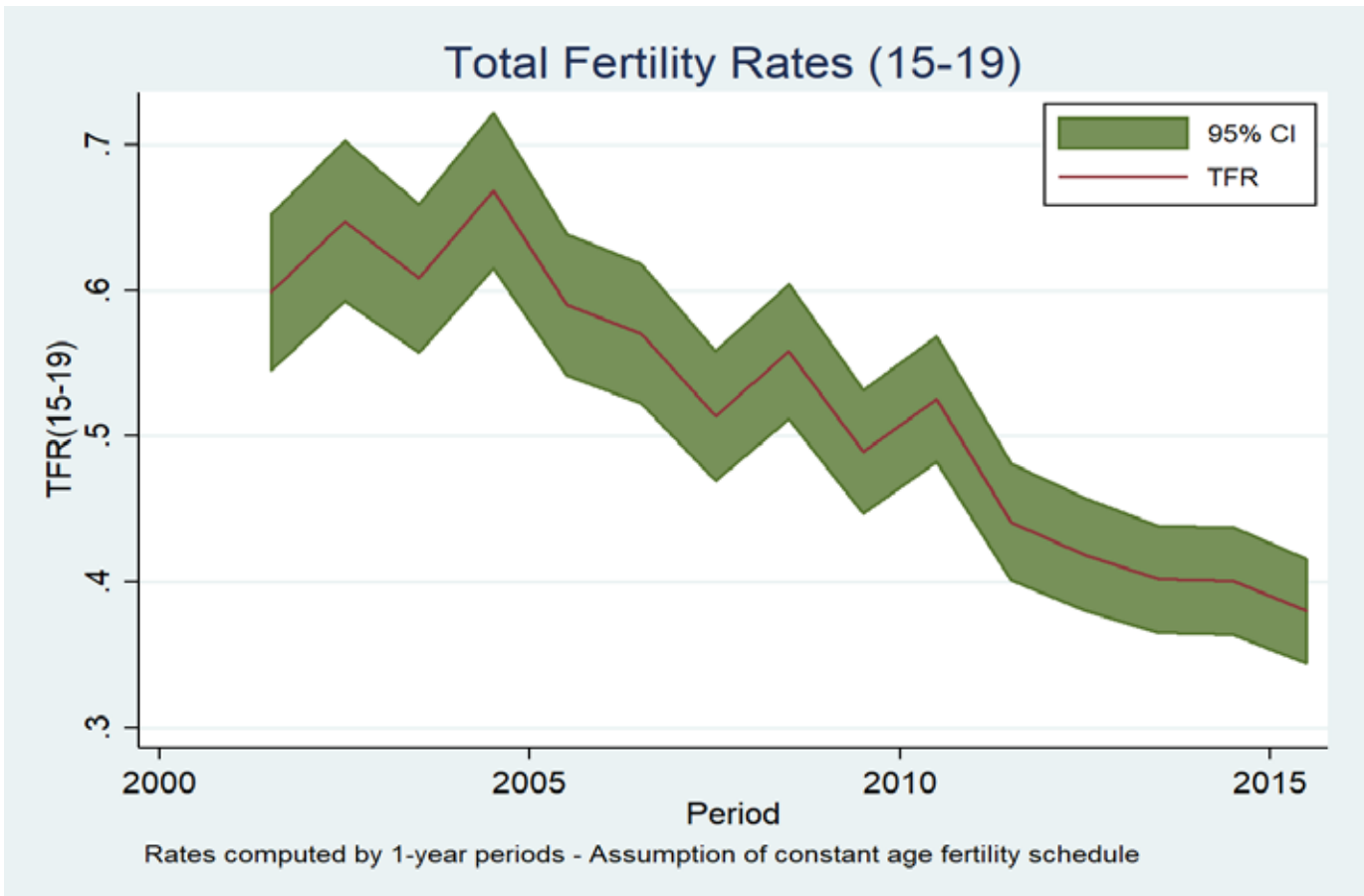
2004 to 2009 though with fluctuating trend. After 2012 too adolescent fertility rate declined but not that sharply. The adolescent fertility rate was 4% in the year 2004 which declined to 2.5% in the year 2016.

According to Carl Haub the causes of decline (or lack of decline) in adolescent fertility varies widely among

countries. In countries where births outside of marriage are socially unacceptable, delayed marriage plays a big role within the decline. But social norms, and expectations that girls will marry young, may encourage early marriage and childbearing. Keeping girls in class also delays marriage and childbearing. And data

show that levels of education play a task as well: As women receive more education, their desired number of children declines. Effective birth control programs can help women choose the timing and number of kids they need.

**Figure 2: Trends in adolescent fertility rates (2001 to 2016)**



It is acknowledged in the literature that age at first birth has a significant impact on fertility. Early Age at first birth clearly communicate low scholastic attainment and less awareness of women/ women’s partner or early marriages of women.

Clearly when the age of birth is low say in the age group of 16-21 there is highest fertility rate i.e., 4%. Child bearing at this low age is mostly prevalent among rural Jharkhand i.e., 77.09% of women who gave first birth at the age 16 to 21 belong to rural Jharkhand and 22.91% from urban Jharkhand. Among all the women

who gave first birth at the age of 16 to 21 are either have no education (46.48%) or have incomplete primary education i.e., 7.31% or have completed only primary education i.e., 6.25.

So, when women start child bearing at early age it is likely that she will be having more children in future because she is not educated enough to know about the how more children bearing will bring more burden or she doesn’t have more awareness as most women belongs to rural Jharkhand.



**Table 3: Age at First Birth and Total Fertility.**

Events: TFR if	Coef.	Std. Err.	Z	P> z	[95% conf.	Interval
Age at birth = less than 15	2.629462	.1938952	13.56	0.000	2.249434	3.009489
Age at birth = 16 to 21	4.021234	.0603679	66.61	0.000	3.902915	4.139552
Age at birth = 22 to 25	3.604484	.0933272	38.62	0.000	3.421566	3.787402
Age at birth = 26 to 30	3.037204	.1553742	19.55	0.000	2.732676	3.341732
Age at birth = 31 to 43	2.282875	.2929547	7.79	0.000	1.708694	2.857055

**Age-specific fertility rates and Religion**

Faith and religious authority can influence TFR at individual and country levels. For instance, at the UN population conference in Cairo 1994, Vatican and Muslim leaders opposed aspects of family planning, especially abortion and women’s autonomy. Increased faith has accompanied population growth in parts of the world. Based on the World Values Survey, Norris & Inglehart ranked 73 countries as “most secular”, “moderate”, or “most religious”.

Mean TFR 1970–1975 for the most secular countries was 2.8 children, for moderate 3.3 and for most religious 5.4. The corresponding values 2000–2005 were 1.8, 1.7 and 2.8. Several other studies also suggest that religiosity favours high TFR (Götmark, F., Andersson, M).

Though we can’t see much difference in Fertility rate between different religions but Fertility Rate

among Muslims is little high than Hindu and Christian. Fertility rate is lowest among Sikh but the result of Sikh for any age group is not significant.

Events	Coef. For Hindu	Coef. For Muslim	Coef. For Christian	Coef. For Sikh
Rate_1519	.0782491	.0880934	0.334676	.1044029
Rate_2024	.2220766	.212908	.1242097	.0955258
Rate_2529	.1220227	.1648046	.134349	.0640226
Rate_3034	.0518612	.0809897	.097398	.0503323
Rate_3539	.0164987	.0185791	.0270373	1.87e-09
Rate_4044	.0044799	.0180509	.0081023	8.40e-09
Rate_4549	.0021709	.0015145	2.13e-10	1.874841
TFR	2.486795	2.924701	2.12282	.0606845

**Other Factors affecting Fertility Rate**

**Rural and Urban disparity**

Clearly Urban area has less fertility rate compared with rural area as urban area is more developed. People are more aware about the contraception methods in urban area. Among women who do not use any contraceptive

method 74.93% belong to rural area and 25.07% belong to urban area. In rural Jharkhand only 23.20% of female are sterilized and 1.91% use pill.

**Table 4: Place of Residence and Total Fertility.**

Events: TFR in	Coef.	Std. Err.	Z	P>[z]	[95% conf.	Interval
Urban Jharkhand	1.775456	.0486505	36.50	0.000	1.680123	1.87079
Rural Jharkhand	2.832822	.0365401	77.53	0.000	2.761205	2.90444

**Education and TFR**

It is very much evident from the table 5 that when scholastic attainment is highest then fertility rate is 1.73 but when women have no education then fertility rate is 3.16. Education can change family relations and childbearing decisions. More and longer education can bring about empowerment of women, later marriage, later onset of childbearing, and smaller family size.

Also, according to World Economic Forum, the economic theory of fertility suggests an incentive effect: more educated women have higher opportunity costs of bearing children in terms of lost income. The household bargaining model suggests

that more educated women are better able to support themselves and have more bargaining power, including on family size.

According to the ideation theory, more educated women may learn different ideas of desired family size through school, community, and exposure to global communication networks. Finally, more educated women know more about prenatal care and child health, and hence might have lower fertility because of greater confidence that their children will survive.

Events: TFR if educational attainment of women	Coef.	Std. Err.	Z	P>[z]	[95% conf.	Interval]
No education	3.168797	.0663301	47.77	0.000	3.038792	3.298801
Primary education	2.874177	.0939578	30.59	0.000	2.690023	3.058331
Secondary education	2.316274	.043287	53.51	0.000	2.231433	2.401115
Higher education	1.735799	.087016	19.95	0.000	1.565251	1.906347

**Earnings and TFR**

We can see from the table that there is no such vast difference in fertility rate when we look at the variable whether women earns more than or less than her partner. Moreover, we can see when both the partner earns same then fertility is rather high. This variable doesn't explain

the fertility and standard error is also too high because there may be so many factors which lead to either earn more or less. So, we need to look at other important variables which have direct impact on fertility rate.

**Table 5: Women Earnings and Total Fertility.**

Events: TFR if Women earn	Coef.	Std. Err.	Z	P>[z]	[95% conf.	Interval
more than partner	2.590461	.6496966	3.99	0.000	1.317079	3.863843
Less than partner	2.877651	.2913209	9.88	0.000	2.306672	3.448629
About the same	4.20095	.6176056	6.80	0.000	2.990466	5.411435
Husband doesn't bring any money	3.67559	.9147516	4.02	0.000	1.88271	5.46847

### Contraceptive Knowledge<sup>2</sup> and TFR

Family Planning programs spread information, counsel couples and make contraceptives easily available, all of which may reduce TFR. Use of modern contraceptives is important and there is experimental evidence that Family planning programs increase contraceptive use and reduce

<sup>2</sup> Knowledge of any method is classified into modern, traditional and folkloric methods as follows: Modern methods are Pill, IUD, Injections, Diaphragm, Condom, Female Sterilization, Male Sterilization, Implants, Lactation amenorrhea, Female condom and Foam/Jelly. Traditional methods are Periodic Abstinence (Rhythm), Withdrawal, and Abstinence. Folkloric methods are the category "other" and any other country-specific methods. If a respondent knows both, a traditional method and a modern method, then the modern method takes priority and he is coded as knowing a modern method. Similarly, if a man knows a traditional method and a folkloric method, the traditional method takes priority.

TFR. According to NFHS-4 14% of women heard about Family Planning on radio in last few months, 41.70% of women heard about Family Planning on TV in last few months and 26.79% of women heard about Family Planning in newspaper or magazine in last few months.

Both in Urban Jharkhand and Rural Jharkhand when there is knowledge of modern method among women then there is huge reduction in fertility rate but fertility rate is less in urban area as compared to rural area. When women know only folkloric method or traditional method then fertility rate is as high as 5.46 in Rural Jharkhand compared to 2.65 in Urban Jharkhand. Only there is no knowledge of any method then Fertility rate is as high as 3% in Rural Jharkhand (for urban Jharkhand result is not significant).

**Table 6: Knowledge of Any Method and Total Fertility.**

Events: TFR and Knowledge of Method	Coef.	Std. Err.	Z	P> z	[95% conf.	Interval
Urban						
No method	1.38	1.14723	1.2	.229	-0.86845	3.62860
Knows only folkloric method or traditional method	2.65	1.78777	1.48	.138	-0.85225	6.15569
Knows modern method	1.78	.048944	6.43	0.00	1.68695	1.87881
Rural						
No method	2.91	.275983	10.54	0.00	2.36928	3.45112
Knows only folkloric method or traditional method	5.46	1.30125	4.20	0.00	2.90981	8.01064
Knows modern method	2.84	.03705	76.67	0.00	2.76846	2.91371

### Decision maker for using Contraception

Research has identified several reasons for the non-use of contraceptive methods. No use due to “opposition from others” is more common among married women. Married women sometimes face obstacles in their relationships with their partners (for example, difficulty in negotiating contraceptive use). This is striking, as

all women should have the right to make their own reproductive decisions. This also highlights the need to empower women, as doing so will allow them to have autonomy over their own bodies and lives and make informed decisions regarding contraception (Moreira, L.R., Ewerling, F., Barros, A.J.D. et al).

Though we cannot see any vast difference in rural Jharkhand or urban Jharkhand if the decision maker for using of contraception is women or her husband. But

joint decision leads to higher fertility rate both in urban Jharkhand and rural Jharkhand.

Events: TFR if decision maker for using contraception	Coef.	Std. Err.	Z	P> z	[95% conf.	Interval
Urban						
Mainly respondent	2.518561	.6907206	3.65	0.000	1.164774	3.872348
Mainly Husband	2.202712	.5492995	4.01	0.000	1.126104	3.279319
Joint decision	3.372249	.2767672	12.18	0.000	2.829796	3.914703
Rural						
Mainly respondent	3.967148	.6657301	5.96	0.000	2.662341	5.271955
Mainly Husband	2.917131	.3840695	7.60	0.000	2.164368	3.669893
Joint decision	3.10896	.140605	22.11	0.000	2.833379	3.38454

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# Chapter 15

## Tribal Welfare And Interventions For The Underprivileged





A significant proportion of the population of the state of Jharkhand constitutes that of the Scheduled Tribes, Scheduled Castes, and other underprivileged communities. These communities, however, are not homogeneous. They exhibit significant variation in terms of economic, social, cultural, political, educational and health parameters. The challenge for the state lies in ensuring the inclusion of these diverse groups. Social inclusion offers space for diversity, while at the same time fostering the engagement of all. To achieve social inclusion and social integration, the voices of these different sections of the society, and their hopes and apprehensions need to be heard and addressed. Not a handful, but all members of the society must have a stake as well as a say in their shared society. This inclusiveness creates and maintains stability, which in turn promotes growth and development in society. Public governance plays an important role in addressing social inclusion and delivering inclusive growth. With this in mind, the Welfare Department of the State specifically addresses the educational, economic, political, social, cultural, educational, health, developmental, environmental, and a whole range of other needs and concerns of the

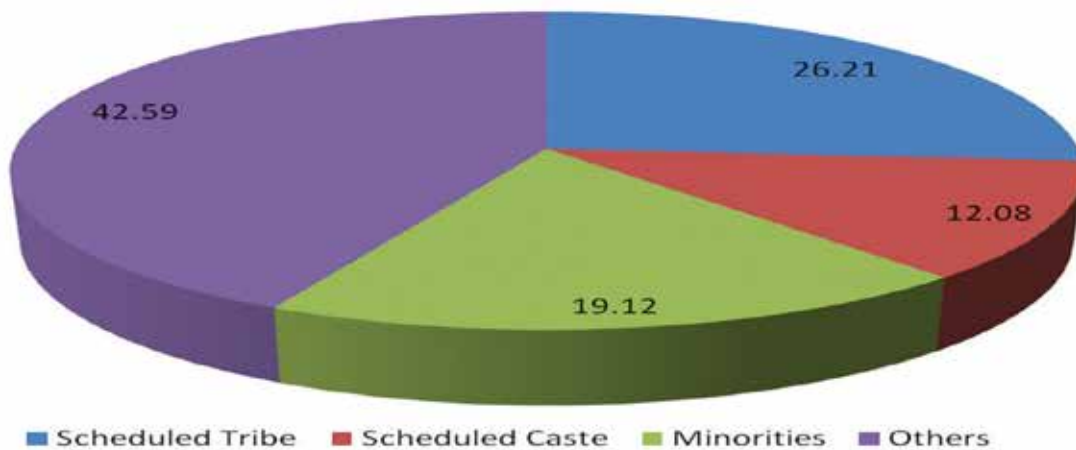
Scheduled Tribes, Scheduled Castes, Other Backward Classes and the other underprivileged sections of the society and ensures that developmental progress revolves around them and equally benefits them.

This chapter of the survey seeks to identify the initiatives taken by the state of Jharkhand from its establishment with a special focus on the year 2020-21, in the form of programmes and measures for the welfare and the overall development of the underprivileged sections of the society, and their relevant implementation and the subsequent impact on these very sections of the society.

**The Social Composition of Jharkhand**

The state of Jharkhand has a total population of 32.99 million people. The Scheduled Castes, Scheduled Tribes and the minorities constitute about 57.4 per cent of the total population of Jharkhand. Among them, the Scheduled Tribes numerically form the major community. They constitute 26.21 per cent of the total population of the state while the Scheduled Castes constitute 12.08 per cent of the state's population (Census of India, 2011).

**Figure 15.1: The Social Composition of Jharkhand**



*Source: Census 2011*

The Scheduled Tribes of Jharkhand consist of 32 tribal groups out of which 8 are Particularly Vulnerable Tribal Groups (PVTGs). The highest literacy rate among the STs in the state is recorded for the Oraon, Dhangar tribe which is 67.0%. 25 out of the 32 listed Scheduled Tribes of Jharkhand have a female literacy rate of less than 50%. 10 out of the 32 listed Scheduled Tribes of the state recorded a literacy rate of less than 50%. The highest

tribal female literacy rate is 58.1%, which is very low compared to the national average literacy rate among females which is 65.46%. On the other hand, West Singhbhum has the lowest proportion of SC households with no literate adults. The data from Table 15.1 reflects the overall low literacy rates among the Scheduled Tribes in the state. Chatra has the highest proportion of SC households with no literate adults. Similarly, only 7



out of the 32 Scheduled Tribes of the state have a worker participation rate of more than 50%. In Jharkhand, 41 per cent of the rural SC households have no literate adults above 25 years of age. Other notified Scheduled Tribes of Jharkhand are, Kharia, Gond, Kol, Kanwar, Sarvar, Asur, Baiga, Banjara, Bathudi, Bedia, Binjhia, Birhor, Birjia, Chero, Chick-Baraik, Gorait, Karmali, Khond, Kisan, Kora, Korwa, Lohra, Mahli, Mal-Paharia, Parhaiya, Sauria-Pahariya, and Bhumji. Out of them,

Santhal is the most populous tribe constituting about 34 per cent of the total ST population of the state. While the national average literacy rate among the males is 82.14%, amongst the Scheduled Tribes of Jharkhand, the highest recorded male literacy rate is 76.9% found among the Karwar tribes. Even among tribes like the Karwar, one notices a considerable difference between the male and female literacy rates. The level of educational deprivation seems to be greater among the SCs.

**Table 15.1: Jharkhand- list of STs with details in terms of households, sex-ratio, child sex-ratio, worker- participation rate, main workers and marginal workers**

Sl No	Name of the Scheduled Tribe	Number Of Households	Sex Ratio	Child Sex Ratio	Literacy			Worker Participation Rate	Main Worker	Marginal Worker
					Total	Males	Females			
	All STs	1761025	1003	976	57.1	68.2	46.2	46.9	46.2	53.8
1	Asur, Agaria	4399	958	956	46.9	58.0	35.4	47.5	50.5	49.5
2	Baiga	777	958	1104	36.7	43.3	29.6	46.5	25.6	74.4
3	Banjara	202	1012	939	40.3	55.4	25.6	39.0	58.9	41.1
4	Bathudi	923	975	866	51.2	63.1	39.2	50.0	47.4	52.6
5	Bedia	19631	995	1023	58.0	69.0	46.9	42.8	54.9	45.1
6	Binjhia	3109	968	928	56.3	68.9	43.4	51.3	54.2	45.8
7	Birhor	2661	960	968	34.5	41.3	27.4	47.4	42.6	57.4
8	Birjia	1358	977	997	50.2	61.7	38.4	49.6	45.0	55.0
9	Chero	19306	956	947	63.6	76.2	50.4	38.1	33.4	66.6
10	Chik Baraik	11723	997	960	64.5	75.3	53.6	47.7	55.3	44.7
11	Gond	11338	994	971	59.8	71.0	48.6	47.1	53.4	46.6
12	Gorait	1117	968	988	62.0	72.6	51.0	43.5	51.7	48.3
13	Ho	185982	1021	992	54.0	67.0	41.4	45.9	47.2	52.8
14	Karmali	12664	932	912	62.4	73.7	50.3	37.1	53.1	46.9
15	Kharia	41247	1019	990	65.9	73.0	58.9	50.6	53.0	47.0
16	Kharwar	46458	964	983	56.4	68.2	44.2	44.2	33.0	67.0
17	Khond	180	939	778	62.4	76.0	48.4	46.6	44.7	55.3
18	Kisan	7638	974	989	49.5	60.2	38.5	53.8	40.9	59.1
19	Kora	7733	989	955	55.5	68.5	42.4	42.7	40.5	59.5
20	Korwa	7462	978	1002	37.9	45.8	29.7	51.0	25.6	74.4
21	Lohra	43517	977	962	56.2	67.1	45.1	46.0	49.8	50.2
22	Mahli	34509	992	983	54.2	66.0	42.4	48.0	56.1	43.9
23	Mal Paharia	30235	1003	997	39.6	49.1	30.2	49.3	45.0	55.0
24	Munda	248747	1001	973	62.6	72.9	52.4	48.0	53.2	46.8
25	Oraon	324826	1007	967	67.0	75.9	58.1	45.4	53.3	46.7
26	Paharia	5725	958	988	33.1	41.5	24.3	45.7	26.2	73.8
27	Santhal	569996	1009	975	50.8	62.9	39.0	48.1	39.6	60.4
28	Sauria Paharia	10215	1012	1034	39.7	48.9	30.6	51.6	40.4	59.6
29	Savar	2752	992	1019	33.7	43.3	24.0	48.2	30.8	69.2
30	Bhumij	48610	996	968	56.7	70.4	43.0	46.3	38.9	61.1
31	Karwar	1874	995	981	64.3	76.9	51.7	51.4	53.5	46.5
32	Kol	10163	982	1013	47.7	60.3	34.8	44.6	36.2	63.8

The districts having a high concentration of the STs, usually, have a low concentration of the SC population. The districts bordering Bihar also have a high concentration of the SC population. Out of 22 SCs, Chamar is the most populous caste, constituting about 26 per cent of the total SC population. Four castes, namely Musahar, Pasi, Ghasi, and Dom, account for another 11 per cent of the SC population of the state. Along with Chamar, Bhuiya, and Dusadh, these five communities constitute about 86 per cent of the total SC population of the state. The remaining 10 castes along with the generic castes constitute the residual 3.2 per cent of the state's SC population. The Scheduled Castes comprise 12.08 per cent of the total population of Jharkhand.

Bhuiya and Dusadh are the second and the third largest SCs constituting about 21 and 11 per cent of the SC population of the state respectively. Bantar, Choupal, Halalkhor, and Kanjar are numerically the smallest Scheduled Caste communities of the state. The STs are concentrated mainly in the southern and the northeastern parts of the state. The Scheduled Castes constitute less than 5 per cent of the population of Khunti, Gumla, West Singhbhum, and Lohardaga, where the Scheduled Tribes constitute more than 50 per cent of the population. Other six major tribes, namely Munda, Ho, Kharwar, Lohra, Bhumij and Kharia are concentrated in the Khunti, West Singhbhum, Palamau, Ranchi, East Singhbhum, and Simdega districts respectively.

**Table 15.2: Inter-District Concentration of Scheduled Tribes in Jharkhand**

Percentage of ST population	Districts
Less than 10	Koderma(0.96), Chatra(4.37), Giridih(9.74), Hazaribagh(7.02), Dhanbad(8.68), Palamau (9.34)
10 to 25	Deoghar (12.31), Bokaro (12.4), Ramgarh (21.19), Garhwa (15.56), Godda (21.26)
25 to 40	Sahibganj (26.8), East Singhbhum (28.51), Jamtara (30.4), Saraikela (35.18), Ranchi (35.76)
40 to 55	Latehar (45.54), Pakur (42.1), Dumka (43.22)
55 to 70	Gumla (68.94), West Singhbhum (67.31), Lohardaga (56.89)
More than 70	Khunti (73.26), Simdega (70.78)
Percentage of SC Population	Districts
Less than 5	Pakur (3.16), Gumla (3.17), West Singhbhum (3.79), Lohardaga (3.32), Khunti (4.52), East Singhbhum (4.86)
5 to 10	Ranchi (5.25), Saraikela (5.28), Dumka (6.02), Simdega (7.45), Sahebganj (6.29), Godda (8.8), Jamtara (9.21)
10 to 15	Deoghar (12.74), Giridih (13.31), Bokaro (14.51), Ramgarh (11.2)
15 to 20	Koderma (15.25), Hazaribagh (17.5), Dhanbad(16.29)
20 to 25	Garhwa (24.19), Latehar (21.31)
25 to 30	Palamau (27.65)

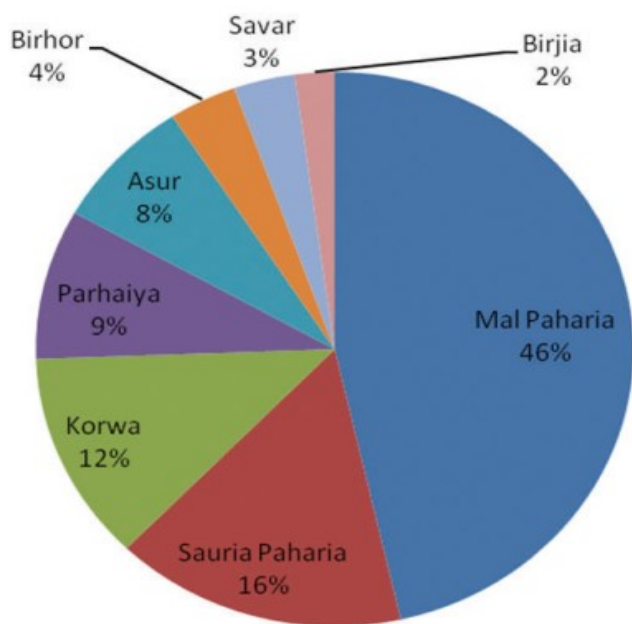
Source: Census 2011

### Particularly Vulnerable Tribal Groups

About 88 per cent of the Korwas and 93 per cent of the Pahariyas live in Garhwa, Palamau, and Latehar. The eight PVTGs of the state constitute about 3.4 per cent of the tribal population. About 98 per cent of the Sauria Pahariyas and 56 per cent of the Mal Pahariyas live in the Pakur, Sahebganj and Godda districts of this region. The Sauria and Mal Pahariyas are mainly concentrated

in the Santhal Pargana region of the state. Similarly the majority of the Korwas and Parahiya live in the Palamau region of the state. Among the other PVTGs the Savars are mainly concentrated in East Singhbhum; Asur in Gumla, Hazaribagh, Lohardaga, Ramgarh, and Latehar and Birijia in Gumla and Latehar.

**Figure 15.2: The Composition of PVTGs of Jharkhand**

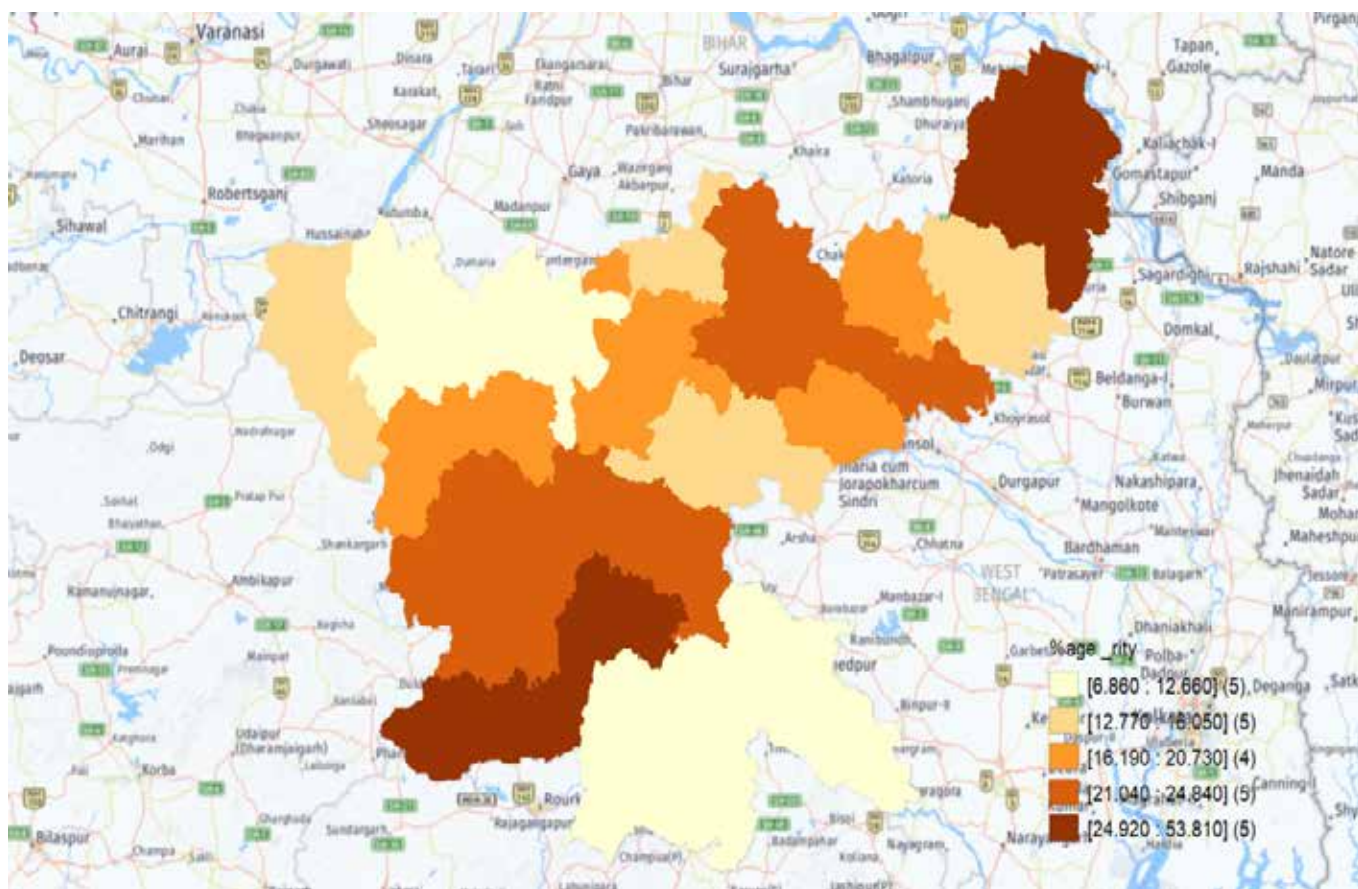


Source: Census 2011

**Minorities of Jharkhand**

Deoghar, Giridih, Jamtara, Lohardaga, and Godda have a sizable presence of the people of the minority communities. They have been notified as minority communities by the Government of India in the Gazette under Section 2(c) of the National Commission for Minorities Act, 1992. Like the other communities, there is an inter-district variation regarding the presence of the minority communities in Jharkhand. Sahebgunj and Pakur have a large percentage of Muslims – about 35 per cent of the population of these districts belongs to this community. Simdega, Khunti, and Gumla, on the other hand, have a sizable presence of the Christians. The Christians constitute about 25 per cent of the population of Khunti and 20 per cent of the population of Gumla. The minority religious communities comprise of the Muslims, Sikhs, Christians, Buddhists, Zoroastrians (Parsis), and Jains. More than 20 per cent of the population of Deoghar, Giridih, Jamtara, Lohardaga, and Godda are Muslims. More than half of the population of Simdega comprises of the Christian community. The Muslims and the Christians constitute 14.5 and 4.3 per cent respectively, of the entire population of the state.

**Map 15.1: Inter District Concentration of the Minorities in Jharkhand**



### 5th Schedule Areas in Jharkhand

Out of 259 blocks in the state of Jharkhand, 111 fall out of the 24 districts) under the Fifth Schedule areas (spread across 15 districts)

**Table 15.3: The Scheduled Areas in Jharkhand**

District	Blocks
Ranchi	Burmu, Mandar, Chanho, Bero, Lapung, Ratu, Namkum, Kanke, Ormanjhi, Angara, Silli, Sonahatu, Tamar, Bundu
Khunti	Arki, Khunti, Murhu, Karra, Torpa, Rania
Lohardaga	Kisko, Kuru, Lohardaga, Bhandra and Senha
Gumla	Bishunpur, Ghagra, Chainpur, Dumri, Raidih, Gumla, Sisai, Bharno, Kamdara, Basia and Palkot
Simdega	Simdega, Kolebira, Bano, Jaldega, Thethaitangar, Kurdeg and Bolba
Latehar	Barwadih, Manika, Balumath, Chandwa, Latehar, Garu and Mahuadarn
Garhwa	Bhandaria
West Singhbhum	Bandgaon, Chakradharpur, Sonua, Goelkera, Manoharpur, Noamundi, Jagannathpur, Manghgaon, Kumardungi, Manjhari, Tantanagar, Jhickpani, Tonto, Khutpani and Chaibasa
Saraikeela Kharsawan	Govindpur ( Rajnagar ), Adityapur ( Gamhariya ), Saraikela, Kharsawan, Kuchai Chandil, Ichagarh and Nimdih
East Singhbhum	Golmuri, Jugsalai, Patamda, Potka, Dumaria, Musabani, Ghatsila, Dhalbhumgarh, Chakulia and Bahragora
Dumka	Saraiyahat, Jarmundi, Jama, Ramgarh, Gopikandar, Kathikund, Dumka, Sikaripara, Raneshwar and Masalia
Jamtara	Kundhit, Nala, Jamtara and Narainpur
Sahebgunj	Sahebganj, Borio, Taljhari, Rajmahal, Barharwa, Pathna and Barhet
Pakur	Littipara, Amrapara, Hiranpur, Pakur, Maheshpur, and Pakuria
Godda	Boarijore and Sunderpahari

Source: The Scheduled areas of Jharkhand have been specified by the Scheduled areas (States of Chhattisgarh, Jharkhand and Madhya Pradesh) Order, 2003 (Constitution Order, 192) dated 20.2.2003

### Other Forms of Social Exclusion

Social exclusion is a complex and multi-dimensional process. Besides the Scheduled Tribes, Scheduled Castes and religious minorities, some other marginalized communities and groups suffer the consequences of social exclusion and social deprivation. The urban poor (31.1 %) are few as compared to the rural poor (41.6 %). 39.1 % of people in the state live below the poverty line (BPL) as compared to the national average of 29.8 %. Women, the mentally challenged, the unemployed, the poor, the transgender, and the disabled often face the brunt of exclusion and deprivation. The state has 22 out of the 24 districts listed among the BRGF districts. According to the SECC data, the average percentage of women-headed households in India is 12.88 per cent. The figure is slightly less in Jharkhand where approximately 10.45 per cent of the households are women-headed. Jharkhand

faces acute poverty in its rural areas. It affects both the quality of life of the individuals as well as the equity and cohesion of the society as a whole. The proportion of the rural SC households living in poor conditions is high in the districts of Pakur and Sahebganj. About 16 per cent of the tribal households in rural Jharkhand are living in one-room houses with Kuccha walls and Kuccha roofs. 32 per cent of the tribal households in Pakur and 30 per cent of the ST households in Sahebgunj live in such houses. In rural Jharkhand, 67.75 per cent of the households have Kuccha houses compared to 36.61 per cent in India and 53.64 per cent in eastern India. About 20 percent of the rural SC households in Jharkhand live in a one-room house with Kuccha walls and Kuccha roofs.

**Table 15.4: Incidence of Poverty in Jharkhand**

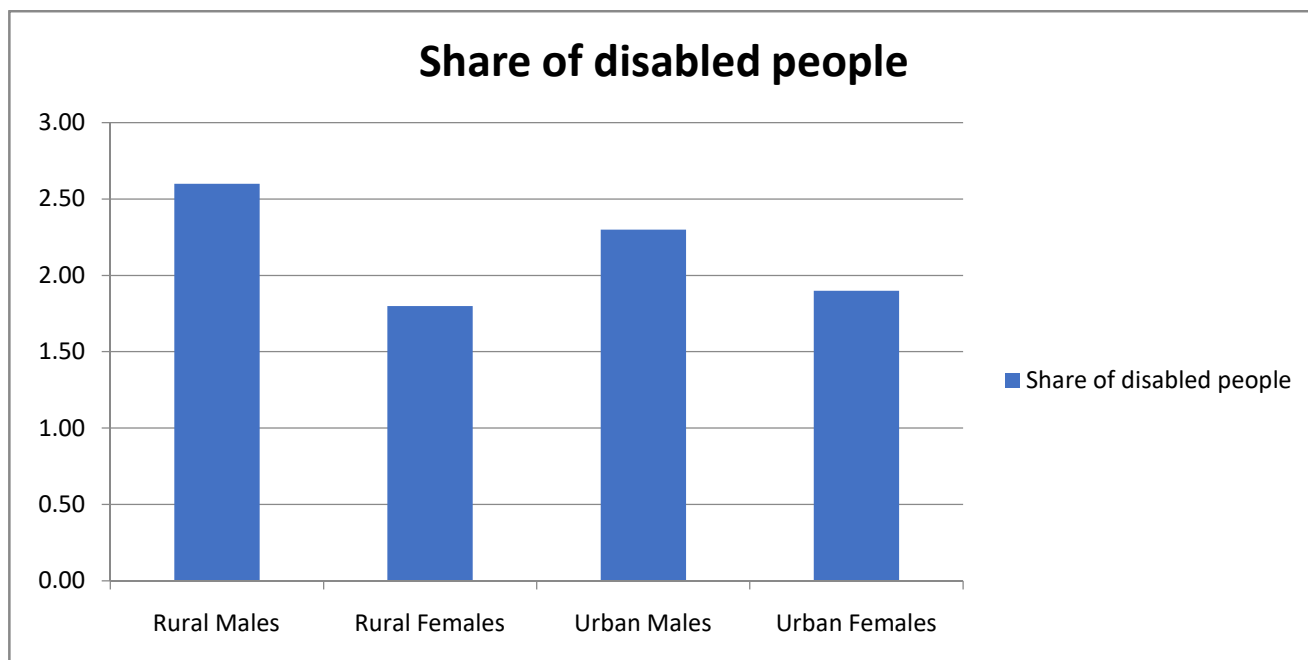
Community	Percentage of Population living below poverty line (BPL)
ST	49%
SC	40.4%
OBC	34.6%
Others	23.1%

Source: <https://niti.gov.in/writereaddata/files/Jharkhand%20presentation.pdf>

Source: SECC 2011

1.85 per cent of the people in the rural areas and 2.59 per cent of the people in the urban areas of Jharkhand have some form of disability. The incidence of disability in Jharkhand is higher than that at the pan India level. About 2.9 per cent of the physically challenged persons of the country live in Jharkhand. Unlike the rest of India, in Jharkhand, the incidence of different types of disability is higher in the urban areas as compared to the rural areas. This is primarily because of the under-reporting of disability in the rural areas as compared to the urban areas of the state. According to the 76th round of the NSO survey conducted between July and December 2018, a higher percentage of the disabled males were present in rural Jharkhand that is 2.6 per cent.

**Figure 15.3: Share of Men and Women with a recognized disability across urban and rural Jharkhand**



Source: 76th round of the NSO survey conducted between July and December 2018

### Income, Livelihood and Assets

Cultivation and manual labour seem to prevail as the dominant sources of livelihood among the underprivileged SCs and STs of Jharkhand. In terms of income and asset ownership, both the SCs and the STs of Jharkhand appear to be deprived communities. Thus, there is an urgent need to equip the underprivileged communities of Jharkhand with economic capital which can then help them acquire social and cultural capital.

However, when it comes to government employment, greater percentages (5.08%) of the SCs are employed with the government as compared to the STs (3.49%). Only 8.2% of the SC households in Jharkhand have a salaried job; while the figure is even lower for the ST households, among whom only 6.08% have a salaried job.

**Table 15.5: Percentage of SC/ST Households with Salaried Jobs in Jharkhand**

Community	Total No of Households	Total No of SC/ST HHs	% of SC/ST HHs	No of Households with Salaried Jobs In:		
				Govt.	Public Sector	Private Sector
SC	5044234	653283	12.95	5.1	1.6	1.5
ST	5044234	1468637	29.12	3.49	0.95	1.64

Source: Socio- Economic and Caste Census, 2011

**Table 15.6: Assets and Income of the SCs and STs in Jharkhand**

Community	% of SC/ST HHs	Households Owning Motorized Two/Three/Four Wheelers/ Fishing Boats	Households having Kisan Credit Cards With a Credit Limit of Rs 50,000 & Above	Households With any Member as a Govt. Employee	Households With any Member Earning More than Rs 10,000 p.m.	Households Paying Income Tax
SC	12.95	12.71	1.40	5.08	6.83	4.84
ST	29.12	14.99	1.78	3.49	5.14	3.31

Source: Socio- Economic and Caste Census, 2011

### Welfare Initiatives Taken By the Government of Jharkhand

To improve the well-being of the SCs, STs, and the other underprivileged communities and to reduce the socio-economic deprivations they grapple with, the Welfare Department of the Government of Jharkhand has resorted to meaningful policy – making and a speedy and targeted implementation of the same to achieve timely and desired results. Some of the significant programs and schemes launched by the Department have been discussed in the light of their impact and consequences on the targeted sections of society:

#### Educational

The Department of Welfare formulated a scheme to build infrastructural library facilities in the residential high schools during 2019-20. Additionally, the department has also set up science laboratories and libraries in the residential high schools, run by the department. The nodal agency for setting up an ICT lab is JAPIT. Students of class 1 to class 10 studying in the primary, secondary and senior secondary grades and belonging to the economically weaker SC, ST, and OBC families, are given scholarships to cover their educational costs. To improve the quality of education, the Department of Welfare has formulated a scheme to start e-learning

programmes in the residential high schools through the setting up of the ICT labs in the select residential schools during 2019-20.

Different types of Scholarships are provided under this scheme. They include the following:

#### Pre- Matric Scholarships:

The objective of the scheme is to primarily ensure continued school-education of all the students, especially those belonging to the marginalized sections and to reduce their dropout-rates. The amount of scholarship varies on the basis of the class of the students. It is as follows:

**Table 15.7: Pre- Matric Scholarship**

Class	Category (ST &SC)
Classes I- IV	Rs. 500/- per student per year
Classes V- VI	Rs. 1000/- per student per year
Classes VII- VIII	Rs. 1500/- per student per year
Classes IX- X	Rs. 2250/- per student per year

**Table 15.8: Post-Matric Scholarships**

Group of Course	Scholarship Amount (In Rupees)
Courses of Grade I	Maximum 50000/- per student per year
Courses of Grade II	Maximum 30000/- per student per year
Courses of Grade III	Maximum 25000/- per student per year
Courses of Grade IV	Maximum 15000/- per student per year

**Merit cum Means Scholarship for Professional & Technical Courses:**

The Ministry of Minority Affairs (MoMA), GoI directly implements Merit cum Means Scholarship. Under this scheme, scholarship is offered to students from the minority communities for pursuing professional and technical courses. Those students whose family income is equal to or less than Rs 2.5 lakhs per annum are eligible to avail this scholarship. During 2019-20, 1098 fresh applications and 448 applications for renewal) have been sent to MoMA, GoI.

**Table 15.9: Total Number of Applications sent to the GoI for scholarships to the minorities**

Type of Scholarship	2016-17		2017-18		2018-19		2019-20	
	Fresh	Renewal	Fresh	Renewal	Fresh	Renewal	Fresh	Renewal
Pre- Matric	25079	23	48454	7495	39907	14478	81437	10198
Post-Matric	15580	960	17724	3896	9837	3223	10286	3243
Merit cum Means Scholarship for Professional & Technical Courses	1857	924	1971	1122	641	581	1098	448

**Table 15.10: Number of SC, ST and OBC beneficiaries for Pre & Post-Matric Scholarships Scheme**

Scheme	2017-18			2018-19			2019-20		
	ST	SC	BC	ST	SC	BC	ST	SC	BC
Pre- Matric	774643	321589	1151155	826626	342287	1206038	715666	309359	1E+06
Post- Matric	77307	21901	145343	84356	23465	159552	79823	22753	161306

To ensure the timely submission of applications and expedite the timely disbursement of the amount of scholarship, the government has made the application process online, to ensure minimum inconvenience to the students.

The government seeks to provide these students with residential- educational facilities so that the chances of their acquiring cultural capital are not hampered. These residential schools not only provide free accommodation but also provide food, books, stationery, etc.

**Residential Schools:** The government has established and is running 143 residential schools for the students belonging to the Scheduled Castes, Scheduled Tribes, and Other Backward Classes and Minority communities.

**Eklavya and Ashram Vidyalaya:** The Eklavya Model Residential Schools and Ashram schools aim to provide the best opportunities in education to the Scheduled Tribe (ST) students which are at par with their non-ST

counterparts of the remote areas.

**Activities Scholarships:** To encourage the budding sportsmen and sportswomen from the SC, ST, and OBC categories to participate in the various sports activities and competitions, the government is providing them with scholarships.

**Residential Schools for the Primitive Tribal Groups (PTGs):** The government is running 8 residential schools for the PTGs with the assistance of non-governmental institutions, to empower the children of these communities with a cultural capital in the form of education.

**Total Number of Active EMRS/Ashram Schools:** 18 (7+11) The recurring cost per student (food, uniform, study materials including books etc) enrolled in state run residential schools is as follows

- Class I-VI: Rs. 27000/- per student/per year
- Class VII-XII: Rs. 32410/- per student/per year

**Table 15.11: Details of the functional EMRS and Ashram in Jharkhand**

SI No	Name	Sanctioned Class	Sanctioned Strength	Enrolment	Category
<b>EMRS</b>					
1	EMRS, Bhognadih, Sahebganj	I-XII	480	472	Boys
2	EMRS, Kathijoria, Dumka	I-XII	480	480	Girls
3	EMRS, Torsindri, West Singhbhum	I-XII	480	448	Girls
4	EMRS, Tamar, Ranchi	I-XII	480	480	Boys
5	EMRS, Sunderpahari, Godda	I-XII	480	178	Girls
6	EMRS, Kujra, Lohardaga	I-XII	480	261	Girls
7	EMRS, Basia, Gumla	I-XII	480	187	Boys

SI No	Name	Sanctioned Class	Sanctioned Strength	Enrolment	Category
<b>ASHRAM School</b>					
1	Ashram School, Kisko, Lohardaga	I-X	200	160	Boys
2	Ashram School, Bhelwara, Hazaribagh	I-X	200	120	Boys
3	Ashram School, Kuchai, Saraikela	I-X	200	201	Boys
4	Ashram School, Gomia, Bokaro	I-X	200	117	Boys
5	Ashram School, Jhinkpani, West Singhbhum	I-X	200	111	Boys
6	Ashram School, Sisai, Gumla	I-X	200	196	Girls
7	Ashram School, Simaria, Chatra	I-X	200	107	Girls
8	Ashram School, Redma, Palamau	I-X	200	120	Boys
9	Ashram School, Gurabanda, East Singhbhum	I-X	200	120	Girls
10	Ashram School, Majhigawan, Garhwa	I-X	200	120	Girls
11	Ashram School, Parvat Vihar, Jamtara	I-X	200	200	Girls

This encourages the students to continue their schooling and not drop out due to their inability to pay the examination fees. They are exempted from the examination fees in the Matriculate and Intermediate examinations conducted by the Jharkhand Academic Council.

Providing Uniform: The objective of this scheme is to

provide free uniforms to students from classes 6 to 10, belonging to the SC and ST communities.

Reimbursement of Examination Fee This is a state-initiated scheme aimed to promote education among the students of the deprived communities of the ST, SC, and OBC categories.

**Table 15.12: No. of Beneficiaries under the Scheme of Examination Fee Reimbursement**

District	Exam 2017			Exam 2018			Exam 2019-20		
	SC	ST	BC	SC	ST	BC	SC	ST	BC
Total	49038	96519	209835	35311	74945	148802	22879	55258	96211



### Cycle Distribution Scheme (DBT Scheme)

After passing the middle-level school examination maximum students from the villages discontinue their studies due to the lack of transportation facilities. The benefits of the Cycle Distribution Scheme are being given to the eligible students through the Aadhaar Enabled DBT. Rs. 3500.00 per student was given in the

year 2018-19. So to encourage the students belonging to the scheduled caste (SC), scheduled tribe (ST), and Other Backward Classes, this scheme was devised. Till 2017-18, the provision of the cycle was Rs. 3000.00 per student, which was increased to Rs.3500 in 2018-19.

**Table 15.13: Details of the students benefited under Cycle Distribution Scheme**

Year	No of Students Benefited				
	Total No of Students	ST	SC	OBC	Minorities
2017-18	296927	94520	41984	118542	41881
2018-19	286849	85482	40852	116003	44512
2019-20	295950	86010	43454	120492	45994

### Health Facilities

Health for all is a basic human right and the Government of Jharkhand has undertaken several initiatives to improve the health of its people.

#### 1. Medical Aid:

This scheme provides assistance to the poor families belonging to the ST/SC/OBC communities with immediate medical help. The provision of medical aid under this scheme is a maximum of Rs. 10000.00.

Under this scheme, the District Welfare Officer is authorized to sanction an amount upto Rs 3000/- for the treatment of the poor families belonging to the ST/SC/OBC communities. In extremely critical cases, the power of sanctioning grants up to Rs. 10,000/- for medical assistance has been delegated to the Deputy Commissioner. Following are the details of the medical aid provided in the last 5 years under the Medical Aid Scheme:

**Table 15.14: Number of Beneficiaries under the Scheme of Medical Aid**

District	2016-17	2017-18	2018-19	2019-20	2020-21 (till Nov. '20)
Hazaribagh	172	112	488	561	145
Giridih	254	358	124	264	230
Simdega	89	118	52	81	112
Palamu	54	162	112	225	74
Lohardaga	76	68	98	85	42
Dhanbad	109	153	245	334	58
Khunti	73	120	271	150	79
Pakur	77	40	221	187	24
Garhwa	232	196	422	734	334
Deoghar	323	375	581	910	Nil
Jamtara	56	81	287	171	39
Sahebgunj	17	90	31	474	27
Godda	180	385	871	969	182
Latehar	40	122	166	115	47
Gumla	65	31	11	47	11

District	2016-17	2017-18	2018-19	2019-20	2020-21 (till Nov. '20)
Ramgarh	107	247	955	183	59
Bokaro	260	94	294	8	3
Ranchi	209	410	290	414	81
West Singhbhum	131	263	411	750	212
Dumka	400	500	1022	754	95
Sarikeka – Kharsawan	-	103	231	92	Nil
Koderma	208	100	128	190	Nil
Chatra	-	160	42	11	Nil
East Singhbhum	109	205	141	388	33

## 2. PAHARIYA HEALTH SCHEME

The health-condition among the tribals of Santhal Parganas is poor. They often remain excluded from the mainstream society and find it difficult to access medical facilities. Keeping this in mind, a Pahariya Health Sub-Centre was established by the Department of Welfare in the areas dominated by the Pahariya community to provide health services to the PVTG community. There

are 18 Pahariya healthcare sub-centres in the four districts of Santhal Parganas with proper structural units and health staff, including One Auxiliary Nurse, One Midwife, One MHW, and one Doctor visiting every week to provide health services to the tribal communities, particularly the Pahariya tribals.

**Table 15.15: Number of beneficiaries of the Pahariya Health Centres**

Location of Health Centre	2016-17	2017-18	2018-19	2019-20	2020-21
<b>District – Pakur</b>					
Mukripahar	Nil	Nil	1912	1923	1198
Badakhambi	1320	1080	1427	1065	1037
<b>District – Sahebgunj</b>					
Kulbhanga	4177	3626	3485	3338	2868
Amberi	1195	1186	1833	2050	1840
Dhamdhamia	1668	1647	1374	1758	1502
Chamdi	933	1303	1073	1180	755
Marakuti	1305	1372	1219	1618	2268
Magro	1566	597	2306	2793	2571
<b>District – Dumka</b>					
Bhulpahar	1854	1966	1897	1923	1124
Sidhhapahari	2071	2126	2612	2807	1758
Mahuagarhi	1847	1798	1832	1764	980
Gardi	1134	2817	2173	1130	1128
Taaldangaal	1964	2841	2464	2434	1351
Chhatupara	2342	2220	2104	2544	1293
Ghoribad	1871	2324	2716	3226	1860
Uparmurgathali	1428	2443	1999	1720	831
<b>District – Godda</b>					
Rajapokhar, Boarijor	1210	1270	1320	800	848
Saahpi, Sunderpahari	1104	1160	960	750	854

### 3. Safe and Adequate Drinking Water Facility

The rural drinking water-supply-scheme is aimed at providing every person in rural Jharkhand with adequate and safe water for drinking, cooking, and other basic domestic needs. The scheme focuses on the creation of proper infrastructure to ensure the provision of safe water, readily accessible at all times. This has resulted in the provision of rural piped water schemes and HYDT/ solar-based drinking water schemes under Article 275(1), SCA to TSP under the conservation cum development (CCD). HYDT Solar Drinking water systems have been established in 15 districts so far. Over the past 3 years, the government has invested a total of Rs. 28,763.21 lakhs towards the provision of rural piped water supply and the establishment of HYDT Solar Drinking water Systems.

**Table 15.16: Description of Kalyan Hospitals**

Sl No.	District	Location	Run By:
1	Ranchi	Jonah	Rinchi Trust
2	Jamtara	Naala	SANMAT
3	Dumka	Kaathikund	SANMAT
4	Khunti	Arki	Deepak Foundation
5	Lohardaga	Basardih	Vikas Bharti
6	West Singhbhum	Lododih	Dynamic Tarang
7		Bada Chiru	Citizen Foundation
8	Gumla	Naagfeni	Dynamic Tarang

### 4. Kalyan Hospitals

Intending to provide free primary healthcare services to the underprivileged, especially to the Scheduled Tribes residing in the state of Jharkhand, the Welfare Department of the Government of Jharkhand has set up 14 Kalyan Hospitals (formerly known as Rural Hospitals or Meso Hospitals) in Jharkhand with an indoor capacity of 50 beds each. These hospitals fulfill the IPHS (Indian Public Health Standards) standards and are mostly located in the remote Naxalite-infested areas of Jharkhand.

The services offered by the Kalyan Hospitals include OPD services, in-patient services, anaesthetic services, reproductive and child health care, safe water supply and sanitation facilities, investigation services and outreach services.

Sl No.	District	Location	Run By:
9	Saraikela-Kharsawan	Kuchai	Deepak Foundation
10	Sahebgunj	Pathna	Citizen Foundation
11	Pakur	Littipara	Rinchi Trust
12	East Singhbhum	Banmakri	Vikas Bharti
13	Simdega	Bano	ICERT
14	Latehar	Manachutang	ICERT

## HOUSING

### 1. Birsa Awas Yojana:

The Welfare Department of the Government of Jharkhand has been implementing Birsa Awaas Yojana (BAY) since the formation of the state. The objective of this scheme is

**Table 15.17: Number of Housing units sanctioned under the Birsa Awaas Yojana**

Year	Total no. of Units Sanctioned
2015-16	599
2016-17	397
2017-18	1022
2018-19	4519
2019-20	2465
2020-21	Nil (till Nov. 2020)

to provide access to housing facilities to the households belonging to the PVTG category with a 100 per cent grant to the tune of Rs. 131500/- per housing unit

### 2. Shaheed Gram Vikas Yojana

During 2017-18, the department had launched a scheme called Shaheed Gram Vikas Yojana. The key objective of this scheme is to pay tribute to the tribal martyrs who had fought in the Indian War of Independence against the Britishers. The scheme envisages offering tribute by developing their places of birth as Model Villages. Under this scheme-housing, water supply, solar electrification,

and other basic infrastructure are being strengthened in the villages of the martyrs – Birsa Munda, Gaya Munda, Jatra Tana Bhagat, Veer Budhu Bhagat, Siddhu-Kanhu-Chand-Bhairav, Nilambar-Pitambar, Diva-Kishun, Telanga Kharia, Bhagirathi Manjhi, and Poto Ho.

**Major components of the Scheme:**

Housing, drinking water, solar electricity, lift irrigation, Renovation of memorial sites/statues and other need-based infrastructures are being provided by the government in these villages.

**Table 15.18: Details of the birth places of the Martyrs being developed as model villages**

Name of the Martyr(s)	District	Village	No of Housing Units sanctioned till November '20
Bhagwan Birsa Munda	Khunti	Ulihatu	136
Gaya Munda		Etkedih	46
Veer Budhu Bhagat	Ranchi	Silagai	100
Sidhhu- Kanhu	Sahebgunj	Bhognadih	67
Nilambar- Pitambar	Garhwa	Madgarhi	172
Telanga- Kharia	Gumla	Murgu	39
Jatra Tana Bhagat	Gumla	Chingri- Nawatoli	197
		Murgu, Chingri	50
Devaa Soren	Saraikela-Kharsawan	Dibadih	136
Kishun Murmu		Gumidpur	147
Poto Ho	West Singhbhum	Rajabassa	35
Bhagirathi Manjhi	Godda	Taradiha	138

**Income, Agriculture and Livelihood Security**

**1. Skill Development**

Kalyan Gurukul is a flagship programme of the PReJHA foundation. The objective of the PReJHA Foundation is to set up at least one Kalyan Gurukul to enhance skills among the youth and ensure their profitable employment. Managed by the ex-servicemen of the Military Engineering Services, Kalyan Gurukuls reflect the values and culture of the ancient Indian Gurukul system of education. Gurukuls are full-time, short-term, residential skill-development-centres imparting training in sectors such as construction, manufacturing, logistics, infrastructure, and apparel. The PReJHA foundation has around 22 Kalyan Gurukuls operational across the state that is providing skill training to women and youngsters from the ST/SC and Minority communities. The gurukul is a multi-trade skill-development-centre, to facilitate skill-learning and to increase opportunities for the employment of the backward communities.

**Table 15.19: Progress of Training and Placement under the Kalyan Gurukuls**

Details	SC	ST	BC	Total
FY 17- 18 Trained	66	411	211	688
FY 17- 18 Placed	56	350	161	567
FY 18- 19 Trained	174	1669	715	2558
FY 18-19 Placed	161	1520	679	2360
FY 19-20 Trained	182	2166	641	2989
FY 19-20 Placed	137	1713	502	2352
FY 20-21 Trained (till Nov.' 20)	Nil	Nil	Nil	Nil
FY 20-21 Placed (till Nov.' 20)	Nil	Nil	Nil	Nil

N.B. The beneficiaries from the Minority communities have been reckoned under the relevant heads of ST/SC/BC to avoid duplicity.

## 2. Kaushal Colleges

Realizing the need to boost vocational (skill-based) education on a large scale, the government of Jharkhand, has set up Kaushal Colleges across the state for the minority communities. Every Kaushal College will have best-in-industry-class-standards of infrastructure to give a minds-on (knowledge), hands-on (skill) experience to the students at these colleges. The focus would be

at giving an end-to-end trade skill training as per the requirement of the different sectors. Kaushal Colleges for women have also been set up across the state to train deserving young tribal girls in world class trades that will not only empower them to get jobs across the world but also enable them to start a business of their own after the completion of their training .

**Table 15.20: Description of Kaushal Colleges**

SI No	Name and Location	District
1	ANM Nursing Kaushal College, Masmano, Chanho	Ranchi
2	ANM Nursing Kaushal College, Itki	
3	ANM Nursing Kaushal College, Amla Tola, Chaibasa	West Singhbhum
4	ANM Nursing Kaushal College, Gumla	Gumla
5	ANM Nursing Kaushal College, Rajnagar	Sarikela- Kharsawan
6	ANM Nursing Kaushal College, Bhognadih, Barhait	Sahebgunj
7	ANM Nursing Kaushal College, Jamtara	Jamtara
8	ANM Nursing Kaushal College, Latehar	Latehar
9	ANM Nursing Kaushal College, Nagratoli, Ranchi	Ranchi

**Table 15.21: No of Beneficiaries of Kaushal Colleges (till Nov. '20)**

Type of Kaushal College	SC	ST	BC	Minority	Total
Nursing Kaushal College	58	710	309	261	1338
ITI Kaushal College	66	803	341	299	1509

## 3. Jharkhand Tribal Empowerment and Livelihoods Project (JTELP):

At least 10% of the households have been from the Particularly Vulnerable Tribal Groups (PVTGs) as they are the poorest even among the STs. While working with all the households in project villages, the ST target has been ensured by choosing Panchayats with a higher ST concentration. The project target groups include tribal households, including approximately 10,000 particularly vulnerable Tribal Groups (PVTGs) households, women-headed households, and rural youth and Below Poverty Line households within the selected Panchayats. The JTELP is seeking to foster convergence with the ongoing tribal and rural development programmes of the Government of India and the government of Jharkhand. The goal of the JTELP programme is to empower

the local tribal community, to promote sustainable improvement for ensuring a security of livelihood and to improve the general quality of the life of the tribal and the other poor families. Besides strengthening community- based institutions and improving natural resource management as in JTDP, the JTDEP is also emphasizing on productivity-enhancement and up-scaling of proven, market-oriented production activities.

Community Empowerment: Formation of Youth Groups, Self-Help Groups, Gram Sabha Project Execution Committee and their capacity development.

- 5265 SHGs formed
- 813 Youth Groups formed
- 1732 Gram Sabha Project Execution Committees (GSPEC) formed.

**Table 15.22: Interventions under the JTELP and the Targeted Groups**

Intervention	Target Group
Income generating activities	PVTGs and other very poor tribal households
Integrated Production and Marketing Support	Tribal households and other households meeting the selection criteria (land, Irrigation, etc.) for the implementation of activities
Vocational training	Tribal Youth
Community pattas under Forestry (FRA)	Tribal villages situated near Protected forests
Community pattas under Forestry (FRA)	Tribal households meeting the requirement for the issuance of individual pattas
Lac Rearing	Tribal Households
Habitat Planning	PVTGs

#### 4. Interventions under the JTELP

- ◆ Camp for the distribution of solar lamps and cheques to the PVTG beneficiaries.
- ◆ Livelihood Support: Income Generation Activities (IGAs): The livelihood Support component of the JTELP has four subcomponents namely, support for the IGAs, Integrated production and Marketing Support, Vocational Training and Innovative interventions. The Support has encouraged the underprivileged communities to adopt a second crop, and indulge in various off-farm income generating activities (IGAs) like pigeon pie, chick-pea, arhar cultivation, backyard poultry, and piggery, goat-rearing, lac- rearing etc.
- ◆ Integrated Production and Marketing Support: The project aims at supporting the up- scaling of market- oriented production enterprises by promoting the viable market linked production clusters. The enterprises that have been identified are vegetable cultivation, goat rearing, lac rearing, tasar cocoon rearing and mango orchards.
- ◆ Vegetable Clusters: All kinds of vegetables such as tubers, root crop, green leafy vegetables, legumes, cole crops, tomato, and brinjal etc., can be grown.
- ◆ Tasar Silkworm rearing in the forest: The tribal communities living in the remote forested areas, particularly in the different villages of the Kutchai Block of Saraikela- Kharsawan district are usually engaged in the tasar cocoon production. The activity is a source of supplementary income for the poor families who are otherwise engaged in small and marginal farming or are migrating to other places in search of livelihood
- ◆ Mango Orchards: Mango orchards have been developed in the Khunti and Dumka districts.
- ◆ Promotion of homestead nutrition garden- Most of the tribal families own a small piece of land but are unaware of the proper methods of cropping with available resources. Homestead nutrition gardens offer great potential for improving household food security and alleviating micronutrient deficiencies.

**Table 15.23: Outcome of JTELP**

Particulars	Numbers
Enhancement of Livelihood through Livestock Intensification: Piggery	1700
Enhancement of Livelihood through Livestock Intensification: Poultry	3975
Enhancement of Livelihood through Livestock Intensification: Goatery	4977
Pig Breeding Centres	18
Goat Breeding Centres	14
Papaya Cultivation	125 acres
Mango Orchards	Nil
Farmer Service Centres	72
Pig Breeding Centres	18
Goat Breeding Centres	14
Kharif Crop	131884 acres
Bean Snake Farming (PVTG)	Nil
Horticulture (PVTG)	Nil
Paddy Farming Through Advanced Means	76457 acres
Bio Gas Digester	20 families
Apiculture	453 people were trained and 254 people have received inputs for apiculture.
Aquaculture	Nil

**5. Integrated Natural Resource Management:**

It includes programmes such as crop Diversification (SRI-Paddy), the creation of shallow wells and farm ponds, the construction of Farmer Service Centres etc. The objective is that without destroying land, water, greenery and forest, the environment should be wisely developed, used and conserved.

**Table 15.24: Progress under the JTELP**

Activities Undertaken	Achievements (Till Nov. '20)
Pond (completed)	1567
Irrigation wells	486
Shallow wells	772

**6. Initiatives Under the Vandhan Yojana of TRIFED**

The philosophy behind this approach is to empower tribal people with knowledge, tools and a pool of information so that they can undertake their operations in a more systematic and scientific manner. The approach involves the capacity building of the tribal people through sensitization, formation of Self Help Groups (SHGs) and imparting training to them for undertaking a particular activity, exploring marketing possibilities in the national as well as the international markets, creating opportunities for marketing tribal products on a sustainable basis and creating a brand. As a market developer and service provider, the objective of TRIFED in Jharkhand is the socio-economic development of the tribal people by way of marketing development of the tribal products on which the lives of the tribal people depend heavily as they spend most of their time and derive a major portion of their income from the same.

TRIFED undertakes activities with respect to its two main divisions viz. **Minor Forest Produce (MFP) development and Retail Marketing and Development.**

**Minor Forest Produce (MFP) development**

The Minor Forest Produces provide both subsistence and cash income for the people who live in or near forests. It has also been observed that most of the Minor Forest Produces are collected and used/sold by women, thus having a deep linkage to women’s empowerment. An important source of livelihood for the tribal people is non-wood forest products, generally termed Minor Forest Produce (MFP). It involves exploring marketing possibilities for tribal products on a sustainable basis, creating brands and providing other necessary services. It has been undertaking the sourcing of various handicrafts, handloom and natural & food products through the TRIFED which has been marketing tribal products through its Retail Outlets and also through exhibitions. Implemented by TRIFED as the nodal agency, the initiatives taken for the Van Dhan start ups is a well thought out plan for the socio-economic

development of the tribal population.

They form a major portion of their food, fruits, medicines and other consumption items and also provide cash income through their sales.

Its crucial steps are enumerated below –

Components of the Van Dhan Yojana are identifying the locations of MFPs, identifying the tribal gatherers, making an annual MFP gathering plan and finalising value added products

- ◆ An initiative targeting livelihood generation for tribal gatherers and transforming them into entrepreneurs.
- ◆ The idea is to set-up tribal community-owned Van Dhan Vikas Kendras (VDVKs) in the predominantly forested tribal districts.
- ◆ A Kendra shall constitute of 15 tribal SHGs, each comprising of up to 20 tribal NTFP gatherers or artisans i.e. about 300 beneficiaries per Van Dhan Kendra.

### POVERTY REDUCTION

Targeting the Hardcore Poor Project

The Department of Scheduled Tribe, Scheduled Caste, Minority and Backward Class Welfare has launched an evidence and need-based Targeting the Hardcore Poor

(THP) Project for vulnerable families in the year 2017-18. The department has been implementing the THP project in association with the Bandhan-Konnagar and Abdul Latif Poverty Action Lab (J-PAL) in Dumka (Dumka Sadar and Masalia blocks) and West Singhbhum (Tonto and Jhinkpani blocks) districts of Jharkhand since May 2017. The objective of the THP project is to graduate the poorest of the poor 2000 single women-headed ST families from the poverty-line in 24 months.

### Outcomes Envisaged under the THP project

- ◆ Rise in income up to INR 3,600 per month through sustained self-employment
- ◆ Improvement in the nutritional status  
Beneficiaries to be able to save regularly, atleast INR 350 quarterly; linkages for the SHGs
- ◆ Growth in asset value up to INR 20,000
- ◆ Children (0 – 5 age group) of beneficiaries to have received full immunization
- ◆ Enrolment and retention of children (6 – 14) years in school
- ◆ Improved quality of life through better housing, sanitation and drinking water facilities
- ◆ Access to public health (including 100per cent institutional delivery) and social security schemes

**Table 15.25: Programme Implementation Framework of THP in Jharkhand**

Selection of Beneficiaries	Training and transfer of assets	Extending need-based support
<p>Targeted selection of beneficiary through:</p> <ul style="list-style-type: none"> <li>• analyzing SECC data</li> <li>• Participatory Rural Appraisal (PRA) process including social mapping, wealth ranking, household survey.</li> <li>• On-site/physical verification.</li> </ul>	<ul style="list-style-type: none"> <li>• Providing Enterprise- development and confidence- building training</li> <li>• Temporary consumption support through training allowances</li> <li>• Enabling beneficiaries to opt for suitable non-farm enterprises</li> <li>• Transfer of the relevant productive assets (farm/ non- farm)</li> </ul>	<ul style="list-style-type: none"> <li>• Imparting technical and business skills through regular mentoring and on-site visits</li> <li>• Weekly training and handholding support to understand and create awareness about welfare entitlements.</li> <li>• Increasing awareness about financial literacy, behavioural change in sanitation and hygiene and to promote the use of sanitary latrines</li> </ul>
<p>Creation of Village Assistance Committee comprising of key stakeholders to work with Bandhan –Konnagar to support beneficiaries through key interventions</p>		



### **Achievements of THP (till Nov. '20)**

- ◆ A total of 2,000 extremely-poor women headed households, including 120 PVTG were selected from Masaliya and Sadar blocks in Dumka, and the Jhinkpani and Tonto blocks in West Singhbhum, and a 3-day training was imparted to all.
- ◆ Village Assistance Committees (VAC) formed and are supporting THP actively across interventions.
- ◆ Enterprises selected, and assets transferred to all the beneficiaries. Majority of the beneficiaries opted for piggery, goatery, sal leaves plate making, bamboo craft, grocery / varieties stores, tailoring, mat making, rope making, etc.
- ◆ Weekly household visits and group meetings have continued

Considering the success of the scheme, the department from March 2019 has extended the THP Approach to 5000 PVTG families residing in the four districts of the Santhal Parganas.

### **MINORITY COMMUNITY AND HAZ PILGRIMAGE**

A Jharkhand Minority Committee has been formed for the welfare of the religious minority communities. The committee assists in conducting of the Haj Pilgrimage.

### **INITIATIVES IN THE DOMAIN OF SPORTS**

Considering the potential of the tribals in the field of sports, initiatives have also been taken by the state

government for the construction of sports hostels, hostels for the residential hockey training centres, Astro turf facilities and residential volleyball training centres for girls and also for the construction of the indoor sports complex.

### **Conclusion**

To summarize the discussion on the different threads of this chapter of the survey, 'inclusive development' would be possible and meaningful only when development is woven around all sections of the society and in particular, the underprivileged sections of the society. The chapter offers a glimpse of the demographic status and the current state of affairs of the underprivileged sections of the society in Jharkhand. It goes on to discuss the various constitutional and legal remedies that have been devised to empower underprivileged communities. The chapter also highlights the different programmes, schemes, and remedies that have been framed and are being implemented by the Government of India and in particular by the Government of Jharkhand to bring about an improvement in the condition of the underprivileged communities and to equip them with social, cultural and economic capital, so that they can freely and fully participate in the tasks of development of the state and can benefit from the same. Commendable work has been done in this direction. However, the achievements should not result in complacency. Rather, the state needs to keep striving towards fulfilling the aspirations of all sections of the society, in particular, the underprivileged sections, who have for generations been denied the fruits of growth and development in their state.

# Chapter 16

## Natural Resources : Forest, Water And Mineral Resources





According to the IRS Resourcesat-2 LISS III satellite data of the period November, 2017 to January, 2018 published in ISFR 2019, the Forest Cover in the State is 23,611.41 sq km which is 29.62 per cent of the state's geographical area. In terms of the forest canopy-density-classes, the state has 2,603.20 sq km (3.27 per cent) under Very Dense Forest (VDF), 9,687.36 sq km (12.15 per cent) under Moderately Dense Forest (MDF) and 11,320.85 sq km (14.20 per cent) under Open Forest (OF).

Between the assessment-period of 2017-2019, a total of 77 sq.km of non-forest land has been converted into forest-land in the state. It includes 58 sq. km. of VDF, MDF and OF and 19 sq. km. of scrub. VDF and MDF have increased by 5 and 1 sq km respectively whereas, OF has increased by 52 sq km. It can also be highlighted here that the forest-cover in the tribal districts of Jharkhand has increased. Inside RFA/GW at the all-India tribal districts have recorded a decline of 741 sq. km., whereas Jharkhand has recorded an increase of 15 sq. km. The main reasons for the increase in the forest-cover of the state are plantation and conservation activities under the Mukhyamantri Jan Van Yojana, Nadi Mahotsav, Vrihat Vrikchharopan Abhiyan, and compensatory afforestation (CAMPA) schemes. Since the implementation of CAMPA in Jharkhand, a total of 27686.4209 hectares of forest land have been diverted for non-forest usages. However, during the same period, a total of 1,03,406 hectares of land have been covered under plantation too.

Jharkhand has large deposits of minerals and it accounts for about 40 per cent of the country's total mineral resources. Jharkhand holds the 1st position in coal-reserves, 2nd in Iron, 3rd in Copper ore reserve, 7th in Bauxite reserve and is the sole producer of prime coking coal in the country. In the FY 2020-21, a total of 15,691 permits have been issued and Rs. 2,296.96 crores have been collected as royalty on 1,104 major and minor mines in the state (as on 11.11.2020). In terms of the royalty-collection, Dhanbad (Rs. 563.73 crores) is at the top followed by Chaibasa (Rs. 497.74 crores) and Chatra (Rs. 274.13 crores). Apart from other minerals, the state has also produced 36 kg gold between 2015-16 and 2017-18. The total revenue-collection from minerals in 2018-19 was Rs. 5,97,8.97 crores and in 2019-20, it stands at Rs. 5,16,5.82 crores.

As per the latest estimates of ground-water-resources, Jharkhand has 6.21 Billion Cubic Meter (BCM) of Annual Replenishable Ground Water Resource and the net ground water availability is 5.69 BCM. Jharkhand

has been able to develop only 27.73 per cent of its ground water. As per CWMI-2019, in a group of 17 states categorized as Non-Himalayan states, Jharkhand's rank is 17th. This rank of Jharkhand has remained unchanged from what it was in the previous year. However, its score has increased by 5.18 between 2015-16 and 2017-18. In the FY 2015-16, Jharkhand's score was 28.4 out of 100. In the FY 2016-17, it improved to 33.6. This remained unchanged for the FY 2017-18. Two positive results from CWMI-2019 for Jharkhand are that firstly, 93 per cent of the area is cultivated as per agro-climatic zoning in the state and secondly the state has fully covered almost all of its rural habitations and achieved a decline of 70 per cent decline in the water-quality-incidents.

The installed generating capacity of electricity as on March, 31 2018 is 1.36 GW which includes 1.20 GW from thermal energy and 0.13 GW from hydro energy. As per the Energy Statistics, 2019 Report, the estimated potential of renewable power in Jharkhand stands at 18,489 MW and it is 1.69 per cent of the total estimated potential available in the country as on March, 31 2018. The Installed Capacity of Grid Interactive Renewable Power in Jharkhand as on 31.03.2017 and 31.03.2018 is 27.32 MW and 36.12 MW respectively. Thus, an increase of 32.21 per cent can be observed here.

This chapter has been organized under the following heads

- A. Forest,
- B. Minerals
- C. Water Resources
- D. Energy.

### **A. Forest Resources**

The word 'Jharkhand' connotes 'area of land covered with forests'. Therefore, literally as well as symbolically, Jharkhand is associated with forests. Various ethnic groups such as Munda, Oraon, Ho, Santhal, Paharia, Chero, Birjea, Asura and others live in the State and follow varying practices of agro-pastoralism. Traditionally, these indigenous people have symbiotic relationship with forests. Local festivals like Sarhul and Karma are customarily related with the worship of trees.

As per the latest India State of Forest Report published in 2019, the Recorded Forest Area (RFA) in the state is 23,605 sq km of which 4,387 sq km are Reserved Forests, 19,185sq km are Protected Forests and 33 sq km are Unclassed Forests. In Jharkhand, during the period of 1st January 2015 to 5th Feb 2019, a total of

690.87 hectares of forest land were diverted for various non-forestry purposes under the Forest Conservation Act, 1980 (MoEF & CC, 2019). One National Park and 11 Wildlife Sanctuaries constitute the Protected Area network of the state covering 2.74 per cent of its geographical area.

### Forest Cover in Jharkhand

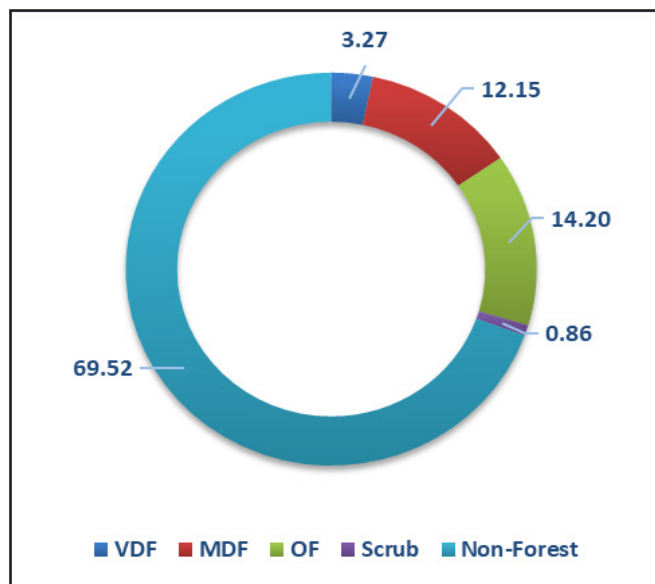
Jharkhand is witnessing a consistent increase in its forest-cover. As per the interpretation of IRS Resourcesat-2 LISS III satellite data of the period November, 2017 to January 2018, published in ISFR 2019, the forest cover in the state is 23,611.41 sq km which is 29.62 per cent of the state's geographical area. In terms of forest-canopy-density-classes, the state has 2,603.20 sq km under Very Dense Forest (VDF), 9,687.36 sqkm under Moderately Dense Forest (MDF) and 11,320.85 sq km under Open Forest (OF). Figure-16.1, shows the proportion of the various types of forest and non-forest area in Jharkhand.

### Change in the Forest-Cover between two Assessment Periods (2017 & 2019)

It is also noticeable that the forest cover in the state has increased by 58 sq km as compared to the previous assessment reported in ISFR 2017, shown in table-16.1. The change within the forests between the different

canopy-density-classes is a very good indicator for policy-framers to track the effectiveness of their policies in increasing the overall forest-cover in the state. Here, we find that the VDF and MDF have increased by 5 and 1 sq km whereas OF has increased by 52 sq km.

**Figure 16.1: Forest and Non-Forest Composition of the total Geographical Area of Jharkhand**



Source: ISFR 2019.

**Table 16.1: Increase in the Forest Cover in Jharkhand**

(in Sq. KM)				
Items	VDF	MDF	OF	Total
2019 Assessment	2603	9687	11321	23611
2017 Assessment	2598	9686	11269	23553
Change	5	1	52	58
Change per cent	0.19	0.01	0.46	0.25

Source: ISFR 2019.

### Forest Cover inside and outside Recorded Forest Area (or Green Wash)

The changes taking place in the forest cover or Green Wash (in the Survey of India topographic sheets, area shown in green are generally referred to as Green Wash and it represents the forested areas at the time of the survey) is not only due to changes within the inside forest area or Recorded Forest Area (RFA) which includes Reserved Forests (RF) and Protected Forests (PF) but also due to the area outside RFA, with the tree-stands of

more than 10 per cent canopy density and size 1 ha or more.

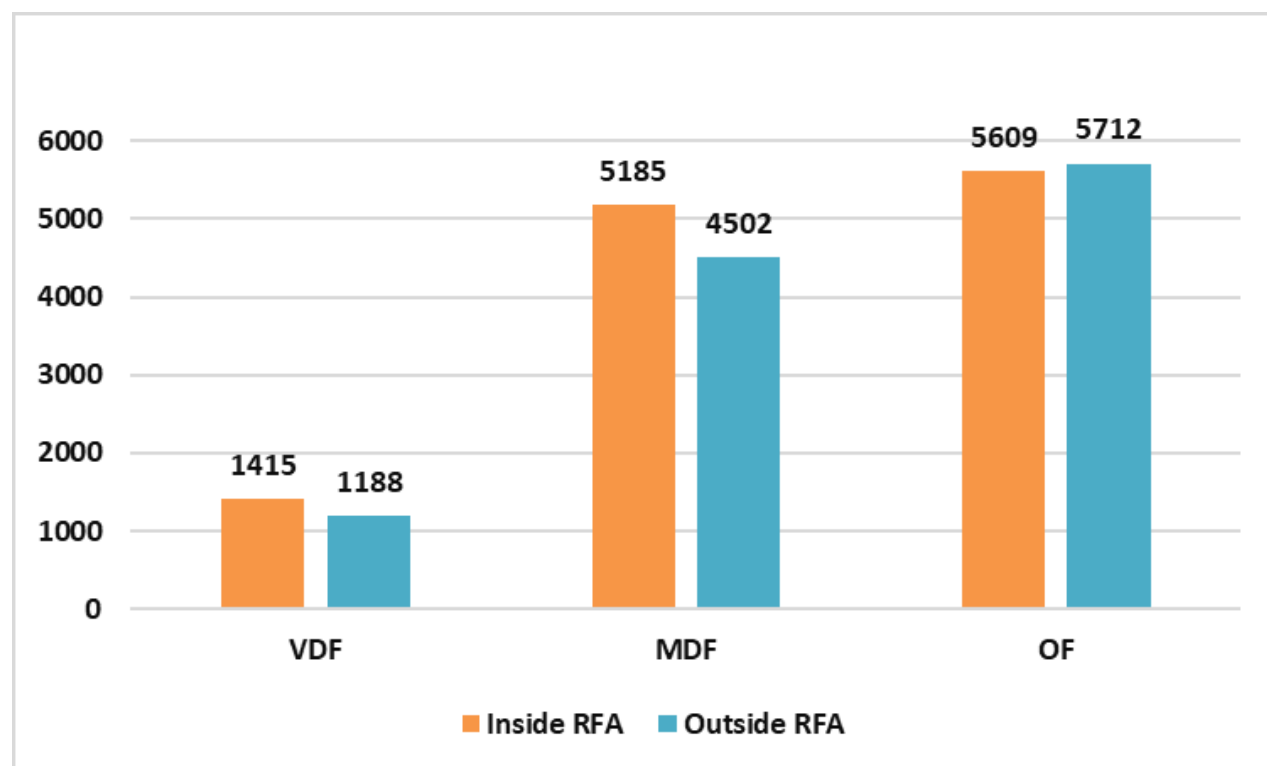
As per table 16.2, out of a total forest cover of 23,6,11 sq. km, 12,2,09 sq. km come under inside RFA and 11,4,02 sq. km under outside RFA. Thus, the ratio of inside and outside Green Wash in Jharkhand stands at 51.71 per cent to 48.29 per cent respectively. Figure-16.2 gives the distribution of Green Wash under VDF, MDF and OF between inside and outside RFA.

**Table 16.2: Forest Cover Inside and Outside Recorded Forest Area or (Green Wash) in Jharkhand (in sq. km)**

Forest Cover inside RFA (or Green Wash)				Forest Cover outside RFA (or Green Wash)				Grand Total
VDF	MDF	OF	Total	VDF	MDF	OF	Total	
1415	5185	5609	12209	1188	4502	5712	11402	23611
11.59 per cent	42.47 per cent	45.94 per cent	51.71 per cent	10.43 per cent	39.48 per cent	50.09 per cent	48.29 per cent	

Source: ISFR 2019.

**Figure 16.2: Composition of Inside and Outside Green Wash in Jharkhand**



Source: ISFR 2019.

**Forest Cover Change Matrix for Jharkhand between 2017 and 2019 assessments.**

The change in the forest-cover is a dynamic process. A forest-cover change-matrix gives a quantitative account of the class-wise change and also the flux of changes among the classes between the current and the previous assessments. Table-16.3 gives the forest-cover-change-matrix for Jharkhand.

Table-16.3 clearly shows that the forest cover in Jharkhand has increased between the two assessment periods i.e. 2017 and 2019. The main reasons for the increase in the forest-cover of the state are plantation and conservation activities as well as improvements in interpretation. The maximum increase is 52 sq. km

which has been observed in the Open Forests. VDF and MDF have also increased by 5 and 1 sq. km respectively. Scrub has also increased by 19 sq. km whereas 77 sq. km of non-forest have been converted into forest land. This matrix can be read like, between 2017 to 2019 assessment, the VDF has deteriorated to become MDF (10 sq. km) and NF (1 sq. km) (read the first row). However, during the same period MDF (16 sq. km) has improved to become VDF (read the first column). Thus, all numbers in red represent the deterioration in the forest-density and accordingly the exclusion of that forest area from the high-density-class to the lower-density classes. Similarly, the green numbers represent the addition of forest area to the high density-classes from lower density-classes.

**Table 16.3: Forest Cover Change Matrix for Jharkhand between 2017 and 2019 Assessments.**

(area in sq. km)

Class	2019 Assessment					Total ISFR 2017
	VDF	MDF	OF	Scrub	NF	
VDF	2587	10	0	0	1	2598
MDF	16	9660	3	0	7	9686
OF	0	11	11230	1	27	11269
Scrub	0	0	8	658	3	669
NF (non forest)	0	6	80	29	55379	55494
Total ISFR 2019	2603	9687	11321	688	55417	79716
Net Change	5	1	52	19	-77	

Gain ■ Loss ■

Source: ISFR 2019.

### Forest Cover in Tribal Districts

Jharkhand is home to several tribes and accounts for more than one-fourth of the state's population. Forests play an important role in the socio-cultural and economic life of the tribal people. The Government of India has identified a total of 218 tribal districts in 27 States/UTs, out of which 17 belong to Jharkhand. This is the third highest in the country. Madhya Pradesh with 24 such districts holds the first rank followed by Assam which has 19 such districts.

Table-16.4 gives the overall account of the forest-cover in

the tribal districts of Jharkhand and its comparison with the national tribal districts. Out of the total geographical area of the tribal districts in India, Jharkhand accounts for 5.22 per cent and out of total RFA/GW area, its share is 2.88 per cent. In comparison to the 2017 assessment, Jharkhand has recorded a net increase of 22 sq. km. with an increase of 15 and 7 sq. km in Inside RFA/GW and Outside RFA/GW respectively in the 2019 assessment. It can also be highlighted here that between these two assessment-periods the Inside RFA/GW tribal districts all over India, has recorded a decline of 741 sq. km., whereas, Jharkhand has recorded an increase of 15 sq. km.

**Table 16.4: Forest Cover in Tribal Districts of Jharkhand**

(in sq. km)

States	No. of Tribal Districts		Geographical Area		RFA/GW Digital Area			
Jharkhand	17		58677		11658			
All India	218		1125117		404661			
in per cent	7.80		5.22		2.88			
States	Forest Cover Inside RFA/GW in 2017				Forest Cover Inside RFA/GW in 2019			
	VDF	MDF	OF	Total	VDF	MDF	OF	Total
Jharkhand	819	3250	3454	7523	829	3244	3465	7538
All India	62921	145599	106418	314938	63789	144695	105713	314197
in per cent	1.30	2.23	3.25	2.39	1.30	2.24	3.28	2.40
States	Forest Cover Outside RFA/GW in 2017				Forest Cover Outside RFA/GW in 2019			
	VDF	MDF	OF	Total	VDF	MDF	OF	Total
Jharkhand	1050	4004	4842	9896	1050	4005	4848	9903

States	No. of Tribal Districts			Geographical Area			RFA/GW Digital Area	
All India	8518	39729	57985	106232	8502	40271	59381	108154
in per cent	12.33	10.08	8.35	9.32	12.35	9.95	8.16	9.16
States	Change Inside RFA/GW		Change Outside RFA/GW			Net Change		
Jharkhand	15		7			22		
All India	-741		1922			1181		

Source: ISFR 2019.

### Tree Cover in Jharkhand

The forest cover presented accounts for tree patches of size 1 ha and more having canopy density of more than 10 per cent. However, trees occurring in patches of size less than 1 ha including scattered trees are assessed through the sampling-based methodology. Trees outside Forests (TOF) refer to tree-resources found outside the forests as defined in the Government records. The forest-cover outside the recorded forest area is derived using the boundaries of RFA or Green Wash. The extent of TOF therefore may be estimated as the sum of the extent of the forest-cover outside the recorded forest areas (RFA) and tree-cover as given in the preceding section. The tree-cover in Jharkhand has been estimated as given in table 16.5.

The tree cover of Jharkhand has decreased by 265 sq km as compared to the previous assessment reported in ISFR 2017.

**Table 16.5: Tree Cover in Jharkhand (2019 Assessment)**  
(area in sq. km.)

Forest Cover outside RFA/GW	Tree Cover	Extent of TOF
11,402	2,657	14,059

Source: ISFR 2019.

### Box 16.1: Forest-Cover along the Ganga River in Jharkhand

#### The Namami Gange Programme

Out of the five states covered under the Namami Gange Project, Jharkhand accounts for only 4.15 per cent of the total area of the river Ganga scape but the forest-cover as per cent of the river-scape-area is 14.48 per cent and it is greater than that of Bihar (2.07 per cent) and UP (3.06 per cent) as per the assessment of 2019 shown in Table-16.6. The Namami Gange Programme is an integrated conservation mission launched in June, 2014. The key activities under the programme are Sewerage-treatment plants, River front development, River surface cleaning, Bio-diversity conservation, Afforestation and Public awareness.

**Table 16.6: Forest Cover along the Ganga River**

(in sq. km.)							
State	Area of River Scape	in per cent	2019 Assessment				
			VDF	MDF	OF	Total Forest Cover	Forest Cover as per cent of River ScapeArea
Uttarakhand	24189.47	27.86	1689.21	5283.28	2885.80	9858.29	40.75
Uttar Pradesh	26851.05	30.92	66.12	205.20	695.86	967.18	3.60
Bihar	13466.91	15.51	0.00	145.86	133.43	279.29	2.07
Jharkhand	3599.79	4.15	7.53	239.02	274.74	521.29	14.48
West Bengal	18724.09	21.56	990.89	949.14	1514.3	3454.33	18.45
Total	86831.31		2753.75	6822.50	5504.13	15080.38	17.37

Source: ISFR 2019.



**Government efforts/schemes to increase the Forest Cover/Green Wash in the State**

The conservation and expansion of Green Wash is among the top priorities of the government in Jharkhand. Apart from the regular afforestation schemes, various occasional afforestation drives are also conducted to achieve the set targets. Mukhyamantri Jan Van Yojana, Compensatory Forest schemes, Nandi Mahotsav and Vrihat Vrikchharopan Abhiyan are quite successful in conserving and promoting forests in the state.

**Mukhyamantri Jan Van Yojana**

It is an ambitious project of the government of Jharkhand. Its main objective is to increase the forest

cover in the state. The scheme also aims to increase the forest cover on private land and enhance the income of farmers. Further it aims to conserve soil through many plantation-programmes in the outer areas of the forest-land and enhance the tree-cover outside the forest-areas.

As per table-16.7, a total of 5,34,204 plants were planted under this scheme in the financial year 2019-20, out of which 1,70,935 were fruit trees and 3,63,269 were timber-plants. Similarly, in the financial year 2020-21, a total of 3,48,445 plants comprising 1,34,139 fruit tree and 2,14,306 timber plants were planted. Thus, only in these two financial years, a total of 8,82,649 plants have been planted under this scheme. The progress of this scheme can also be observed in figure-16.3.

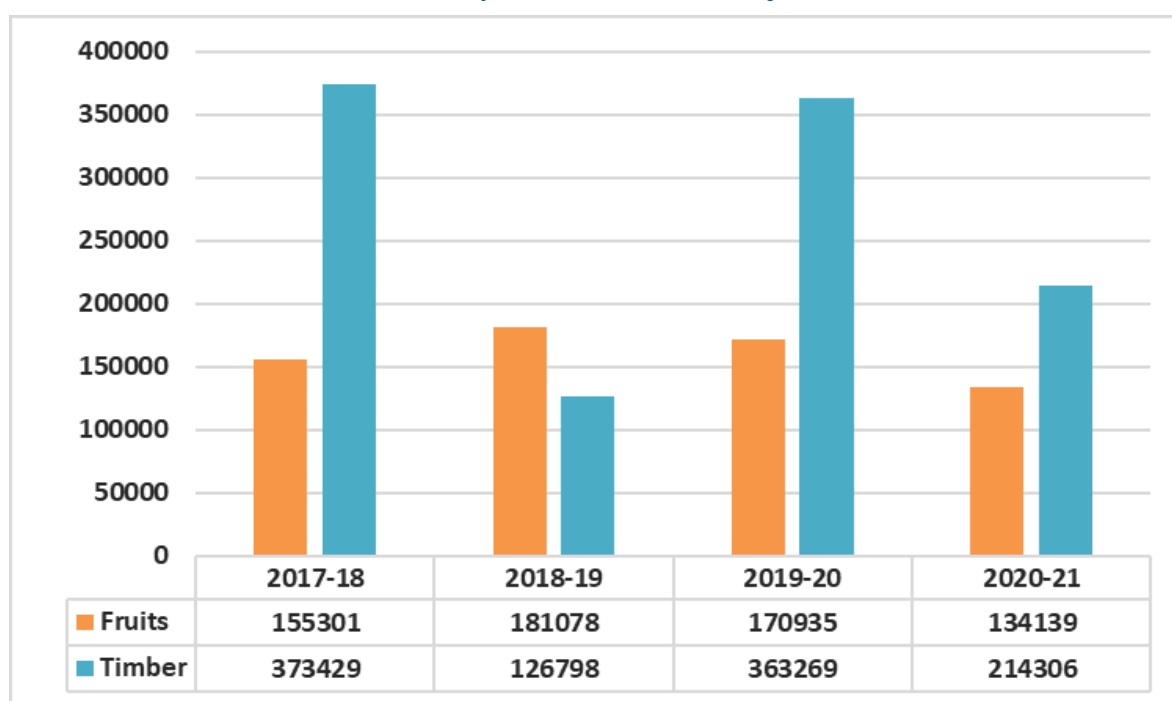
**Table 16.7: Number of Plants planted under the MUKHYAMANTRI JAN VAN YOJANA for the Financial Year 2019-20 & 2020-21**

Districts	Division	Fruits		Timber		Total
		2019-20	2020-21	2019-20	2020-21	
Bokaro	Bokaro forest division	0	0	0	0	0
Chatra	Chatra north forest division	840	0	3434	0	4274
	Chatra south forest division	0	0	0	0	0
Deoghar	Social forestry division, Deoghar	14188	6539	890	2831	24448
Dhanbad	Dhanbad forest division	600	0	600	0	1200
Dumka	Social forestry division, Dumka	0	0	0	0	0
East Singhbhum	Social forestry division, Adityapur	688	0	87627	0	88315
Garhwa	Social forestry division, Garhwa	23632	0	31972	0	55604
Giridih	Giridih east forest division	2005	2240	3212	12420	19877
	Giridih west forest division	0	0	1571	0	1571
Godda	Godda forest division	3794	13576	19927	2740	40037
Gumla	Social forestry division, Simdega	0	10961	0	3827	14788
Hazaribagh	Social forestry division, Hazaribagh	5269	7147	9305	5817	27538
Jamtara	Social forestry division, Dumka	41014	81882	70808	137816	331520
Khunti	Khunti forest division	230	510	1226	3253	5219
Koderma	Social forestry division, Koderma	10766	4800	14758	13350	43674
Latehar	Social forestry division, Latehar	12349	0	28817	0	41166
Lohardaga	Lohardaga forest division	0	2912	2080	2821	7813
Pakur	Pakur forest division	0	0	0	0	0

Districts	Division	Fruits		Timber		Total
		2019-20	2020-21	2019-20	2020-21	
Palamau	Palamau forest division	3433	0	16966	0	20399
Ramgarh	Ramgarh forest division	481	45	0	600	1126
Ranchi	Social forestry division, Ranchi	19247	0	4862	678	24787
Sahibganj	Sahibganj forest division	8000	0	26700	0	34700
Saraikela-Kharsawan	Sarailela forest division	2045	3309	20475	24109	49938
Simdega	Social forestry division, Simdega	20663	0	12075	0	32738
West Singhbhum	Social forestry division, Chaibasa	1691	218	5964	4044	11917
<b>Total: -</b>		<b>170935</b>	<b>134139</b>	<b>363269</b>	<b>214306</b>	<b>882649</b>

Source: The Department of Forests, Government of Jharkhand.

**Figure 16.3: Plantation under the Mukhyamantri Jan Van Yojana in the last Four Financial Years**



Source: The Dept. of Forests, GoJ.

### CAMPA and Compensatory Afforestation

The compensatory Afforestation Fund Management and Planning Authority (CAMPA) was constituted by the Government of India in July, 2004 of which Jharkhand is an active participant. The main objective of the CAMPA is monitoring and managing of the CAMPA money for the compensatory afforestation. Under the CAMPA, a common repository money is received and then utilized for activities like the development of non-

forest lands, carrying out linear plantations, conservation and protection of village-forests and the creation of an infrastructure which can give recurring results in future.

Table-16.8 shows the summary of the overall activities conducted under the CAMPA in Jharkhand. Since 2009, a total of Rs. 143937.393 lakhs whose financial year-wise break up can be seen in table-16.9, have been transferred to the state by the Centre. Since the implementation of CAMPA in Jharkhand,

a total of 27686.4209 hectares of forest land have been diverted for non-forest usages. However, during the same period, a total of 1,03,406 hectares of land have been covered under plantation too. The CAMPA activities are also connected with Google and a total of 1,605 plantation-works of Jharkhand can be viewed on it. A detailed summary-report of compensatory afforestation (CA) and plantation works can be seen in table-16.8.

**Table 16.8: Jharkhand State Live Statistics (CAMPA)**

Total fund transferred by GoI (2009 onwards) (in Lakhs)	143937.393
Total FCA projects registered on Portal (Nos.)	422
Total forest land diverted (Ha.)	27686.4209
Total no. of pieces of land registered for CA	768
Total land earmarked for CA (Ha.)	56051
Total no. of pieces of land registered for CA plantation	632
Total land earmarked for CA plantation (Ha.)	54998
Total no. of other pieces of land registered for Plantation (Non CA)	2424
Total other Non CA land earmarked for Plantation (Non CA) (Ha.)	128165
Total no. of registered plantation works	2563
Total area covered under plantation (Ha.)	103406
Plantation works that can be viewed on Google	1605

Source: <http://egreenwatch.nic.in/States/Default.aspx?ID=16>

**Table 16.9: CAMPA Funds released to Jharkhand by the GOI**

Financial Year	Funds released by the GOI
2009-10	9500.28
2010-11	10316.22
2011-12	6249.893
2012-13	9596.00
2013-14	9750.00
2014-15	17500.00

Financial Year	Funds released by the GOI
2015-16	14100.00
2016-17	14900.00
2017-18	23400.00
2018-19	28625.00
2019-20	0.00
<b>Total</b>	<b>143937.393</b>
<b>India</b>	<b>5946612.6</b>

Source: [http://egreenwatch.nic.in/WorksAndEstimate/Public/Reports/rpt\\_Year\\_Wise\\_State\\_Wise\\_Expenditure\\_Summary\\_Of\\_Campa\\_Fund.aspx](http://egreenwatch.nic.in/WorksAndEstimate/Public/Reports/rpt_Year_Wise_State_Wise_Expenditure_Summary_Of_Campa_Fund.aspx)

### Nadi Mahotsav and Vrihat Vrikchharopan Abhiyan

To link the afforestation-activities to festivity and celebrations, the department of Forest, Environment and Climate Change of the government of Jharkhand organizes Nadi Mahotsav and Vrihat Vrikchharopan Abhiyan every year. Table-16.10 gives forest-division-wise-plantation details under these schemes for the years 2019 and 2020.

A total of 15, 66,660 saplings were planted in 2019 whereas, 2,04,24,127 saplings were planted in 2020. In this massive plantation-drive of 2020, Medininagar forest-division stood first with 8 per cent (16,17,865) of the total plantations followed by Godda forest-division (7 per cent) and Bokaro forest-division (6 per cent) occupying the second and third place respectively as can be seen in figure-16.4.

**Table 16.10: Number of plants planted in 2019 & 2020 across the Forest Division of the State**

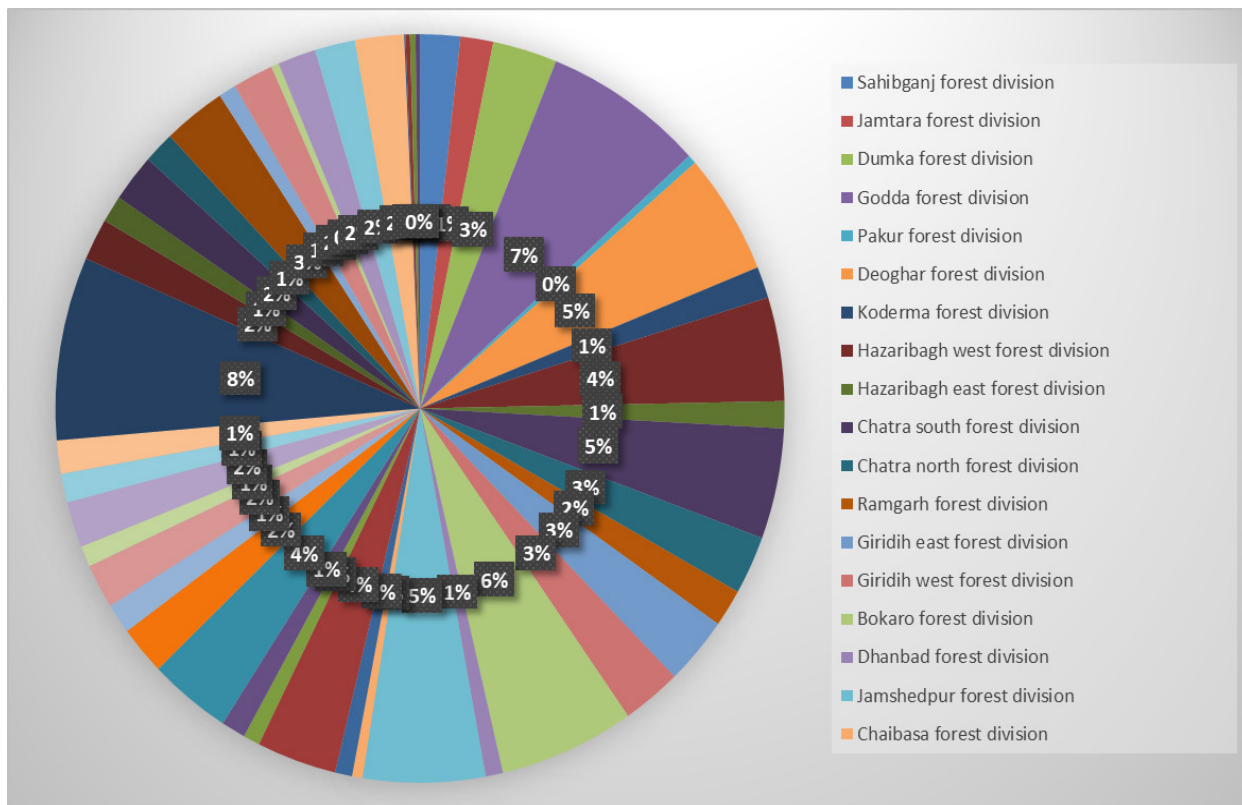
Name of Forest Division	Number of saplings planted in 2019	Number of saplings planted in 2020
Sahibganj forest division	30000	363020
Jamtara forest division	60000	296618
Dumka forest division	87000	583981
Godda forest division	75000	1456218
Pakur forest division	60000	78250
Deoghar forest division	78000	1071656
Koderma forest division	24000	277300

Name of Forest Division	Number of saplings planted in 2019	Number of saplings planted in 2020
Hazaribagh west forest division	42000	914695
Hazaribagh east forest division	54000	238300
Chatra south forest division	24000	974852
Chatra north forest division	....	514900
Ramgarh forest division	42000	330264
Giridih east forest division	72000	601180
Giridih west forest division	30000	536600
Bokaro forest division	60000	1227323
Dhanbad forest division	109140	156455
Jamshedpur forest division	135000	1106500
Chaibasa forest division	32520	94000
Kolhan forest division	15000	155000
Saraikela forest division	51000	723697
Saranda forest division	....	150000
Porahat forest division	.....	219650
Ranchi forest division	135000	745530
Khunti forest division	15000	431052
Simdega forest division	33000	265400
Gumla forest division	51000	392138
Lohardaga forest division	45000	184033
Latehar forest division	45000	404940
Garhwa north forest division	51000	253300
Garhwa south forest division	30000	293300
Medininagar forest division	81000	1617865

Name of Forest Division	Number of saplings planted in 2019	Number of saplings planted in 2020
Social forestry division, Adityapur, Jamsedpur	.....	369400
Social forestry division, Chaibasa	.....	237562
Social forestry division, Ranchi	.....	422278
Social forestry division, Simdega	.....	279788
Social forestry division, Dumka	.....	567998
Social forestry division, Deoghar	.....	157670
Social forestry division, Koderma	.....	366750
Social forestry division, Latehar	.....	70000
Social forestry division, Hazaribagh	.....	346564
Social forestry division, Garhwa	.....	363600
CF-cum-State Silviculturist, Ranchi	.....	442500
CF, Afforestation, Research and Evaluation	.....	12000
Dy. Director, PTR, north division, Medininagar	.....	40000
Dy. Director, PTR, south division, Medininagar	.....	50000
DCF, Elephant Project, Jamsedpur	.....	40000
Total: -	15,66,660	2,04,24,127

Source: The Department of Forest Government of Jharkhand.

**Figure 16.4: Number of saplings planted in 2020 across the Forest Division of the state**



Source: The Department of Forest Government of Jharkhand.

**Minor Forest Products (MFP) in Jharkhand**

As per the Millennium Ecosystem Assessment, estimates up-to 96 per cent of the total value of the forests is derived from the Non-Timber Forest Products (NTFPs) or Minor Forest Products (MFP) and services (MEA 2005). Jharkhand is rich in forest-wealth and many important Non wood forest Products (NWFP) are found here. They include, Tendu leaves or *Bidi patta*, Sal Seed, *Harra*, *Mahua flower*; *Imli* (Tamarind), *Van Tulsi* etc.

To enable the forest dwellers to gain profits from the collection and trade of forest produce and to protect them from exploitative middlemen and petty traders and also to help them establish a mutually beneficial relationship with the rest of the world, the government of Jharkhand has established the Jharkhand State Minor Forest Produce Co-operative Development and Marketing Federation Limited (JHAMFCOFED) in the year 2007.

Table-16.11 shows the production-level of the important minor forest-products in Jharkhand. These have been arranged under four heads, viz. Lac, Chironji, Oil Seeds and parts of Medicinal Plants. At present the production-level of Oil Seeds in the state, stands at 1,65,000 MT which includes 1,00,000 MT of Sal, 50,000 MT of

Mahua, 10,000 MT of Karanj and 5,000 MT of Kusum. A total of 52,070 MT of the Medicinal Plant-parts have also been produced in the state. These include 50,000 MT of *Chakor*, 1,000 MT of *Palash* Flower, 500 MT of *Harra* and 450 MT of *Van Tulsi* Seeds among others.

**Table 16.11: Quantity of Minor Forest Products in Jharkhand**

Sl. No.	Names of important MFP	Production (approximate quantity in Metric Tonnes)
1	Lac	
2	Chironji	1000
3	Oil seeds	
	Mahua	50000
	Karanj	10000
	Sal	100000
	Kusum	5000
	Oil seeds Total	165000

Sl. No.	Names of important MFP	Production (approximate quantity in Metric Tonnes)
4	<i>Medicinal Plant parts</i>	
	<i>Arjun chaal</i>	
	<i>Sarapgandha</i>	15
	<i>Kalmegh</i>	50
	<i>Indrajou</i>	
	<i>Bahera fruits</i>	
	<i>Amala fruits</i>	
	<i>Sona chal</i>	
	<i>Satavar</i>	55
	<i>Dhou Flower</i>	

### Dependence of People living in the forest fringe-villages on forests of Jharkhand

Several people in the state are directly dependent on the forest-produce for their livelihood. However, the major beneficiaries are the people living in the forest-fringe-villages. Through a nation-wide study, FSI has done an estimation of the dependence of the people living in the

Sl. No.	Names of important MFP	Production (approximate quantity in Metric Tonnes)
	<i>Harra</i>	500
	<i>Chirata</i>	
	<i>Nagarmotha</i>	
	<i>Van Tulsi seeds</i>	450
	<i>Palash flower</i>	1000
	<i>Chakor</i>	50000
	<b>Medicinal Total</b>	<b>52070</b>

Source: The Department of Forests Government of Jharkhand.

villages close to the forests for fuel wood, fodder, small timber and bamboo in quantified terms for each state and union territory of the country. Table-16.12 shows the estimated quantity of these forest-products removed annually by the villagers. It is clear from the table that fodder constitutes the major forest-produce for FFVs followed by fuel wood, small timber and bamboos.

**Table 16.12: Quantities of fuelwood, fodder, small timber and bamboo collected annually by the people living in the FFVs from the forests of Jharkhand.**

	Population in FFVs*	Fuelwood (tonnes)	Fodder (tonnes)	Bamboo (tonnes)	Small Timber (cum)
Total Quantities	1,88,43,815	73,72,340	5,54,82,427	50,535	1,83,240
Per capita Quantities		0.391	2.944	0.003	0.010

Source: ISFR 2019.

\*Population in FFVs has been projected for the year 2019.

### Biodiversity and Wildlife

Jharkhand is quite rich in biodiversity and wildlife. The assessment of biodiversity in forests is important since it provides an indicator to represent the state of conservation of forest ecosystems and can also help to evaluate and monitor the sustainability of biological resources. It also helps in the comparative evaluation of stability, productivity and the ecosystem functions of the forests on temporal and spatial scales. As per table 16.14, there are 177 plant-type-species available in Jharkhand and it consists of 111 tree-species, 40 herb-species and 26 shrub-species.

Table 16.13 shows the proportional composition of the different forest-types of Jharkhand. Dry peninsular Sal forest constitutes 53.77 per cent of the total forest cover of the state. The Northern Dry Mixed Deciduous forests constituting for 35.01 per cent of the total forest-cover of the state falls next.

Conservation of wildlife has been given proper importance in Jharkhand. At present the state has one (1) national park and eleven (11) wildlife sanctuaries which account for 2,182.11 sq.km. of the protected area for wildlife. In terms of the area covered, Palamau WLS is the biggest in the state. Table-16.15 gives detail of all these wildlife centres.

**Table 16.13: Percentage of Area covered by different Forest types of Jharkhand**

Forest Type	per cent of Forest cover
3C/C2e (ii) Moist Peninsular Low Level Sal	2.34
3C/C2e (iii) Moist Peninsular Valley Sal	0.28
5/DS1 Dry Deciduous Scrub	2.36
5/E2 Boswellia Forest	0.04
5/E5 Butea Forest	0.00
5/E9 Dry Bamboo Brake	0.55
5B/C1c Dry Peninsular Sal Forest	53.77
5B/C2 Northern Dry Mixed Deciduous Forest	35.01
Plantation/ TOF	5.65
Total	100

Source: ISFR, 2019.

**Table 16.14: No. of Species observed during Rapid Assessment**

Plant Type	No. of Species
Trees	111
Shrubs	26
Herbs	40
Total	177

Source: ISFR, 2019.

**Table 16.15: National Park and Wildlife Sanctuaries in Jharkhand**

Nos.	National Park	Area Square Km.	Year of Establishment
1	Betla NP	226.33	1986
	Wildlife Sanctuaries		
1	Dalma WLS	193.22	1976
2	Gautam Buddha WLS	121.14	1986
3	Hazaribagh WLS	186.25	1976
4	Koderma WLS	177.35	1985

**Table 16.16: Year wise Mineral/Ores Reserves in Jharkhand**

Year (As on 1st April)	Iron Ore '000 tonnes	Coal in Million Tonnes	Copper Ore '000 tonnes	Mica in Kg	Bauxite '000 tonnes	Fire Clay '000 tonnes	Graphite in tonnes	Kyanite in tonnes	Sillimanite in tonnes	Limestone '000 tonnes	Uranium
2000	3218080	72204.11	178820	1494430	117350	68190	5620000	4680000	-	662470	NA
2007	-	74392	-	-	-	-	-	-	-	-	NA
2008	-	75460	-	-	-	-	-	-	-	-	NA

Nos.	National Park	Area Square Km.	Year of Establishment
5	Lawalong WLS	211.00	1978
6	Mahuadanr WLS	63.25	1976
7	Palamau WLS	752.94	1976
8	Palkot WLS	182.83	1990
9	Parasnath WLS	49.33	1984
10	Topchanchi WLS	12.82	1978
11	Udhwa Lake WLS	5.65	1991
<b>Total Area</b>		<b>2182.11</b>	

Source: [http://wiienviis.nic.in/Database/wls\\_8230.aspx](http://wiienviis.nic.in/Database/wls_8230.aspx)

## B. Mineral Resources

Jharkhand has large mineral-deposits and it accounts for about 40 per cent of the country's total mineral resources. It has deposits of a wide variety of minerals ranging from ferrous to non-ferrous. Jharkhand holds the 1st position in coal reserves, 2nd in Iron, 3rd in Copper ore reserves, 7th in Bauxite reserves and is the sole producer of prime coking coal in the country. The other important minerals available in huge quantities in the state are- Limestone, Dolomite, Manganese, Mica, China Clay, Graphite, Soap stone, Fire Clay, Coal Bed Methane, Uranium, Phosphorite, Apatite, Quartz, Feldspar, Gold and Pyroxenite.

### Mineral/Ore Reserves in Jharkhand

A year-wise detail of mineral/ore reserves in the state is given in table 16.16. As per the latest estimates (01/04/2015), Jharkhand has reserves of 52,97,084 thousand tonnes of iron ore, 2,95,389 thousand tonnes of copper ore, 16,65,130 kg of Mica, 2,39,061 thousand tonnes of bauxite, 66,454 thousand tonnes of Fire Clay, 1,75,60,386 tonnes of Graphite, 75,93,755 tonnes of Kyanite, 83,000 tonnes of Sillimanite and 7,24,003 thousand tonnes of Limestone. For Coal, the total reserves stand at 84,505.96 million tonnes as per the estimates of 2019. Coal-field-wise-details of coal reserves are also given in table-16.17. Accordingly, the coal-fields of Jharia, North Karanpura and Rajmahal occupies the top - three position.

Year (As on 1st April)	Iron Ore '000 tonnes	Coal in Million Tonnes	Copper Ore '000 tonnes	Mica in Kg	Bauxite '000 tonnes	Fire Clay '000 tonnes	Graphite in tonnes	Kyanite in tonnes	Sillimanite in tonnes	Limestone '000 tonnes	Uranium
2009	-	76711.96	-	-	-	-	-	-	-	-	NA
2010	4607161	76963.69	288125	1665130	146323	66619	12910869	6030599	83000	634410	NA
2011	-	78935.98	-	-	-	-	-	-	-	-	NA
2012	-	80356.2	-	-	-	-	-	-	-	-	NA
2013	5069082	80701.19	295961	-	190789	-	16484946	-	-	-	NA
2014	-	80716.11	-	-	-	-	-	-	-	-	NA
2015	5297084	81048.77	295389	1665130	239061	66454	17560386	7593755	83000	724003	NA
2016	NA	81172.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
2017	NA	82439.52	NA	NA	NA	NA	NA	NA	NA	NA	NA
2018	NA	83151.68	NA	NA	NA	NA	NA	NA	NA	NA	NA
2019	NA	84505.96	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: The Department of Mines and Geology, Government of Jharkhand

Note: The coal-data are from the Coal Directory of India published by the Coal Controller, Ministry of Coal and the rest of the data are from the Indian Mineral Year Book, published by the Indian Bureau of Mines, MoM, Government of India.

**Table 16.17: Status of Coal Resources of Jharkhand (in Million Tons) as on 01.04.2019**

Coal Field	Proved	Indicated	Inferred	Total
Raniganj	1538.19	466.56	31.55	2036.30
Jharia	16282.19	3248.44	-	19530.63
East Bokaro	3497.43	3922.80	863.32	8283.55
West Bokaro	3922.75	1278.59	17.05	5218.39
Ramgarh	936.65	911.77	58.05	1906.47
North Karanpura	10577.40	6173.27	1864.96	18615.63
South Karanpura	5176.08	1312.28	1143.28	7631.64
Aurangabad	352.05	2141.65	503.41	2997.11
Hutar	190.79	26.55	32.48	249.82
Daltonganj	83.86	60.10	-	143.96
Deochar	326.24	73.60	-	399.84
Rajmahal	5148.30	10784.52	1559.80	17492.62
<b>Total</b>	<b>48031.93</b>	<b>30400.13</b>	<b>6073.90</b>	<b>84505.96</b>

Source: The Indian Mineral Year Book 2019, IBM

### Major/Minor Mines and Royalty collection

Table-16.18 gives a DMO-wise detail of the number of major and minor mines where permits were issued and royalties collected in the FY 2020-21 up to 11th November, 2020. Accordingly, Jharkhand has a total of 1,104 mines, out of which 168 are major mines and 936 are minor mines. Dhanbad (64) has the maximum number of major mines followed by Chaibasa (19) and Ramgarh (16). Similarly, Sahebganj (103) ranks first in

the minor mines followed by Pakur (100) and Palamu (87) respectively. For these mines a total of 15,691 permits have been issued and Rs. 2,296.96 crores have been collected as royalty. In terms of royalty-collection, Dhanbad (Rs. 563.73 crores) is at the top followed by Chaibasa (Rs. 497.74 crores) and Chatra (Rs. 274.13 crores).



**Table 16.18: DMO-wise Status of Major and Minor Mines Report Up to November 11, 2020 (11 AM) for the FY 2020-21**

Sl.	District Mines Office (DMO) Name	Mines		Permit Count	Total Royalty in INR (in crores)
		Major Count	Minor Count		
1	Bokaro	12	26	290	191.88
2	Chaibasa	19	13	3857	497.74
3	Chatra	7	22	1449	274.13
4	Deogarh	1	24	130	13.86
5	Dhanbad	64	46	656	563.73
6	Dumka	7	50	169	6.44
7	Garhwa	0	16	28	0.84
8	Giridih	1	51	141	7.41
9	Godda	1	7	35	129.79
10	Gumla	11	30	249	13.50
11	Hazaribagh	10	39	1739	97.41
12	Jamshedpur	0	35	157	21.28
13	Jamtara	0	19	97	1.52
14	Khunti	0	24	127	2.67
15	Koderma	0	30	68	1.49
16	Latehar	9	50	1411	58.33
17	Lohardaga	3	11	102	5.02
18	Pakur	1	100	786	90.76
19	Palamu	2	87	351	24.22
20	Ramgarh	16	60	2567	202.37
21	Ranchi	4	47	376	41.28
22	Sahebganj	0	103	701	45.55
23	Saraikela kharsawan	0	34	144	4.76
24	Simdega	0	12	61	0.98
	Total	168	936	15691	2296.96

Source: The Department of Mines and Geology, Government of Jharkhand

### Production and Revenue Collection from Minerals

As per table-16.19, the quantity of Iron Ore produced is 19,198 thousand tonnes in the FY 2015-16. In the FY 2016-17, it increased to 21,224 thousand tonnes and further to 21,848 thousand tonnes in the FY 2017-18 (P). Thus, a consistent increase is observed here. A similar trend can be observed for all other minerals except coal,

copper and gold for the period 2016-17 to 2017-18 (P).

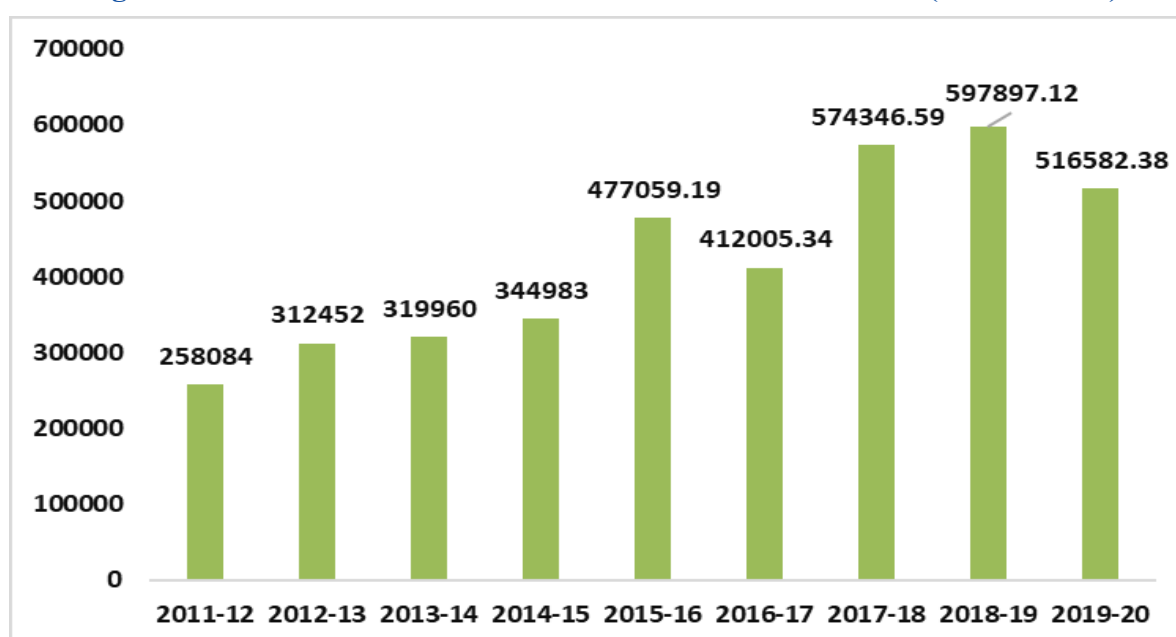
Figure-16.5 shows the collection of revenue from minerals between 2011-12 to 2019-20. In 2018-19 the revenue-collection was Rs. 5,97,897.12 lakhs and in 2019-20, it is Rs. 5,16,582.38 lakhs. A general increase in the revenue-collection over the years shows the continuous progress in the production and sale of minerals in the state.

**Table 16.19: Production of Minerals in Quantity as well as Value terms**

(Quantity in '000 tonnes; Value in `000)							
Sl. No.	Name of Ore	2015-16		2016-17		2017-18 (P)	
		Quantity	Value	Quantity	Value	Quantity	Value
1	Iron	19198	16494215	21224	14623291	21848	17786135
2	Limestone	1076	509938	1146	501660	1191	516664
3	Graphite	36270	22914	10343	11450	18734	17094
4	Bauxite	2111227	1399189	2289825	1642791	2590720	2142293
5	Coal	121067	187369900	126435	200571500	123296	-
6	Copper	8574	286142	9802	332320	5072	173106
7	Mica	-	-	-	-	-	-
8	Fire Clay	-	-	-	-	-	-
9	Uranium	-	-	-	-	-	-
10	Kyanite	-	-	-	-	-	-
11	Sillimanite	-	-	-	-	-	-
	Other Minerals						
12	Magnetite						
13	Gold	13 (kg)	35871	15 (kg)	45424	8 (kg)	24986
14	Silver	-	-	-	-	-	-

Source: The Department of Mines and Geology, Government of Jharkhand

**Figure 16.5: Revenue Collection from Minerals in Jharkhand (Rs. in Lakhs)**



Source: The Department of Mines and Geology, Government of Jharkhand

### C. Water Resources

Due to its geographical positioning and the lack of all-weather rivers, Jharkhand puts more effort in conserving its water resources. For sustainable use of water resources and its proper management, the government of Jharkhand has established the department of water resources. The primary objective of the department is the construction and maintenance of major, medium and minor irrigation-schemes, flood protection and control, groundwater-conservation and recharge-providing-industrial water. It also protects the right of the state in sharing the water of inter-state rivers/ basins. It works in the field of the interlinking of various river basins in order to supply water to the water-starved areas from the water-surplus basins. The state is committed to make sustainable and efficient use of its water resources. Several types of schemes and programmes are operational in the state whose ultimate objective is to make sustainable and efficient use of water through new discoveries and also conservation of existing water resources.

#### Ground Water Resources in Jharkhand

As per the latest estimates of ground water resources, Jharkhand has 6.21 Billion Cubic Meter (BCM) of Annual Replenishable Ground Water Resource and the net ground water-availability is 5.69 BCM. The state has developed just 27.73 per cent of its ground water. Out of a total of 260 blocks, 245 blocks are safe blocks in terms of ground water whereas, 3 blocks are overexploited and 12 blocks are critical/semi-critical (table-16.20). In terms of the quality of ground water, the chemical constituents are within permissible limits except fluoride-contamination in parts of Palamu, Garhwa, Koderma and Pakur and Arsenic-contamination in parts of the Sahebganj district.

**Table 16.20: Status of Ground Water Resources in Jharkhand**

Normal Annual Rainfall (mm)	1251.2
Annual Replenishable Ground Water Resource in BCM (2017)	6.21
Net ground water availability in BCM (2017)	5.69
Annual Ground Water Draft for Domestic & Industrial use in BCM	0.78
Gross annual ground water draft in BCM (2017)	1.58
Stage of ground water development (in per cent) (2017)	27.73
Number of over-exploited blocks (As on 2017)	3

Number of critical blocks (As on 2017)	2
Number of semi critical blocks (As on 2017)	10
Number of Safe blocks(As on March-2017)	245

*Source: Ground Water Year Book of Jharkhand 2018-19, Central Ground Water Board Mid-Eastern Region, Patna State Unit Office, Ranchi.*

#### Fluctuations in Ground Water Level

This helps in monitoring the current levels as well as the recharging status of ground water. In Jharkhand the ground water-levels of 474 Ground Water Monitoring Wells (GWMW) were monitored four times in the year 2018 - 2019 as part of the regime monitoring of phreatic aquifer in different hydrogeological and agro-climatic zones. Over 78 per cent area of the state is underlain by the rocks of the Chotanagpur Granitic Gneissic Complex (CGGC) suit. Hence, most of the GWMW represented the water-level in weathered CGGC. A few GWMW represented the water-level of the phreatic aquifer of Gondwana Super Group, Basalts, Limestones, Tertiary-Formation and recent alluvium.

As per the Ground Water Year Book of Jharkhand 2018-19, during 2018-19, the water-level in the state ranges between 0.74 to 18.92 m bgl respectively. The minimum and maximum depth to water levels during the pre-monsoon period have been recorded as 0.74 m bgl and 18.92 m bgl at West-Singhbhum and East-Singhbhum. In general, the water-level throughout the state varies in the range of 5 – 10 m bgl. During the post-monsoon season, the minimum and the maximum depth of water-levels have been recorded as 0.60 mbgl and 15.90 m bgl in Pakur and East singhbhum respectively. In general, the water-level throughout the state varies in the range of 2 – 5 m bgl.

The fluctuation of the water-level of November, 2018 with respect to the decadal mean of the water-level of November, 2017 indicates the fall (60 per cent) as well as the rise (40 per cent) in the water-level in the range of 0 – 2 m. However, the overall regional fluctuation of the water-level in the entire state is mainly restricted within 2 m only, which is a normal phenomenon and no abnormal rise or fall in the waterlevel is observed except in a few localized wells.

As per table-16.21, the fluctuation of the waterlevel of January, 2019 with respect to the decadal mean of the water-level of January, 2018 indicates 48 per cent fall and 37 per cent rise in the range of 0 – 2 m, has been observed in almost the entire state. Out of 281 wells

analysed, 10 per cent wells have shown a fall and only 1 per cent of the wells a rise, in the water level in the range of 2-4m. The 4 wells have shown a fall of more than 4 m bgl whereas one well has shown a rise of more than 4 m bgl. However, the overall (85 per cent)

regional fluctuation of the water-level in the entire state is mainly restricted within 2 m which is a normal phenomenon and no abnormal rise or fall in the water level is observed except in a few localized wells.

**Table 16.21: District wise Categorisation of fluctuation (Decadal) in the Water-Level and Frequency Distribution between January, (2009-2018 mean) - January, 2019**

Name of the District	No. of Wells	Range of Fluctuation (mbgl)				No. of Wells/Percentage ( per cent) Showing Fluctuation						Total No. of Wells	
		Rise		Fall		Rise			Fall			Rise	Fall
		Min	Max	Min	Max	0 to 2	2 to 4	>4	0 to 2	2 to 4	>4		
Bokaro	14	0.1	1.31	0.1	4.04	3 (21.43 per cent)	0	0	8 (57.14 per cent)	2 (14.29 per cent)	1 (7.14 per cent)	3	11
Chatra	7	0.71	0.99	0.37	1.15	2 (28.57 per cent)	0	0	5 (71.43 per cent)	0	0	2	5
Deoghar	7	1.07	1.07	0.04	4.5	1 (14.29 per cent)	0	0	3 (42.86 per cent)	2 (28.57 per cent)	1 (14.29 per cent)	1	6
Dhanbad	18	0.17	1.29	0.01	1.62	6 (33.33 per cent)	0	0	12 (66.67 per cent)	0	0	6	12
Dumka and-Jamtara	20	0.3	1.54	0.05	2.44	5 (25 per cent)	0	0	14 (70 per cent)	1 (5 per cent)	0	5	15
Garhwa	7	0.38	0.98	0.24	1.69	4 (57.14 per cent)	0	0	3 (42.86 per cent)	0	0	4	3
Giridih	17	0.73	0.73	0.16	5.83	1 (5.88 per cent)	0	0	5 (29.41 per cent)	10 (58.82 per cent)	1 (5.88 per cent)	1	16
Godda	10	0.06	1.7	0.15	1.32	8 (80 per cent)	0	0	2 (20 per cent)	0	0	8	2
Gumla and Simdega	22	0.4	0.4	0.23	2.16	1 (4.55 per cent)	0	0	20 (90.91 per cent)	1 (4.55 per cent)	0	1	21
Hazaribagh and Ramgarh	21	0.01	1.61	0.17	2.84	6 (28.57 per cent)	0	0	12 (57.14 per cent)	3 (14.29 per cent)	0	6	15
Koderma	4	0.01	0.01	0.32	4.15	1 (25 per cent)	0	0	2 (50 per cent)	1 (25 per cent)	0	1	3
Lohardaga	10	0.28	1.13	0.4	2.42	4 (40 per cent)	0	0	4 (40 per cent)	2 (20 per cent)	0	4	6
Pakur	7	0.58	1.75	0.78	2.44	5 (71.43 per cent)	0	0	1 (14.29 per cent)	1 (14.29 per cent)	0	5	2
Palamu and Latehar	23	0.12	2.23	0.11	2.31	12 (52.17 per cent)	1 (4.35 per cent)	0	9 (39.13 per cent)	1 (4.35 per cent)	0	13	10
Pashchimi Singhbhum and Sariakelela	22	0.16	2.37	0.02	2.54	11 (50 per cent)	1 (4.55 per cent)	0	9 (40.91 per cent)	1 (4.55 per cent)	0	12	10
Purbi Singhbhum	19	0.01	1.95	0.44	1.75	14 (73.68 per cent)	0	0	4 (21.05 per cent)	0	0	14	4
Ranchi and Khunti	42	0.07	5.73	0.03	3.47	21 (50 per cent)	1 (2.38 per cent)	1 (2.38 per cent)	16 (38.1 per cent)	3 (7.14 per cent)	0	23	19
Sahebganj	11	-	-	0.03	2.88	0	0	0	8 (72.73 per cent)	3 (27.27 per cent)	0	0	11
Total	281	0.01	1.07	1.01	5.83	105 (37.37 per cent)	3 (1.07 per cent)	1 (0.36 per cent)	137 (48.75 per cent)	30 (10.68 per cent)	4 (1.42 per cent)	109	171

Source: Ground Water Year Book of Jharkhand 2018-19, Central Ground Water Board Mid-Eastern Region, Patna State Unit Office, Ranchi.

**Surface Water Resources**

Surface water is the most important source of drinking water as well as means of irrigation in Jharkhand. Several schemes are running in the state for the construction of new dams as well as for the restoration, expansion and conservation of old ones. The Central Water Commission (CWC) is a premier technical organization of India in the field of water resources and is entrusted with the general responsibilities of initiating, coordinating and promoting the consultation of the state governments concerned and also introducing schemes for the control, conservation and utilization of water resources throughout the country. This is being done for the purpose of controlling flood, irrigation, navigation, drinking water supply and water power development. It also undertakes the investigations, construction and execution of any such schemes as when required.

Current Status of Storage Capacity, Reserves & Fluctuations

in Six (06) major Water Reservoirs of Jharkhand

The CWC monitors a total of 128 major water reservoirs in the country and out of these, six are in Jharkhand. As per the weekly live-report on these reservoirs released for the week ending on 24.12.2020, the live storage-capacity of these six reservoirs is 2.01 at FRL (BCM) and the live storage in the current year is 1.41 BCM and it is less than that of the previous year. In the previous year it was 1.51 BCM (table-16.22).

Table-16.23 shows the reservoir-wise details of the storage-capacity and fluctuations in them. Two among the six major water reservoirs have recorded lower storage as percentage of live capacity at FRL in terms of an 10 years average whereas, the remaining four has always recorded a high storage. Maithan and Panchet reservoir is cent per cent full whereas, Tenughat, Tilaiya and Getalsud reservoirs are filled upto 51 per cent, 50 per cent and 48 per cent as on 24.12.2020.

**Table 16.22: Status of Current Storage (24.12.2020) in Jharkhand**

No. of Reservoirs Monitored	Live Capacity at FRL (BCM)	Live Storage (BCM)			Storage as Percentage of Live Capacity at FRL			per cent Departure from 10 yrs
		Current year	Last year	Last 10 Yrs. Avg	Current Year	Last Year	Last 10 Yrs. Average	
6	2.01	1.41	1.51	1.30	70	75	65	8

Source: Live Storage-status of 128 Reservoirs of the country as on 24.12.2020

**Table 16.23: Weekly Report of Six (06) Important Reservoirs of Jharkhand -24.12.2020**

Name of reservoir	FRL (m)	Current Reservoir Level (m)	Live Capacity at FRL (BCM)	Current Live Storage (BCM)	Storage as per cent of Live Capacity at FRL			Benefits	
					Current year	Last Year	Last 10 Years' Average	IRR. (CCA) in Th. HA	HYDE L in MW
Tenughat	269.14	259.98	0.821	0.416	51	52	46	0	0
Maithon	146.3	149.10	0.471	0.471	100	100	86	342	0
Panchet hill	124.97	127.87	0.184	0.184	100	100	90	0	80
Konar	425.81	424.86	0.176	0.159	90	95	82	0	0
Tilaiya	368.81	366.67	0.142	0.071	50	88	68	0	4
Getalsud	590.06	586.19	0.218	0.105	48	60	52	0	130

Source: Live Storage-Status of 128 Reservoirs of the country as on 24.12.2020 (<http://cwc.gov.in/reservoir-level-storage-bulletin>)

### The Composite Water Management Index (CWMI)- 2019

The National Institution for Transforming India (NITI) Aayog has developed the Composite Water Management Index (CWMI) to enable effective water-management in the Indian states. The CWMI is the first comprehensive collection of country-wide water-data in India based on in-depth structured questionnaires followed by focus-group discussions (FGD) to generate qualitative information. It represents a major step towards creating a culture of data-based decision-making for water in India, which can encourage “competitive and cooperative federalism” in the country’s water-governance and management.

The Comprehensive Water Management Index (CWMI) 2019 measures the performance of states on a comprehensive set of water indicators and reports relative performances in 2017-18 as well as trends from the previous years (2015-16 & 2016-17).

As per CWMI-2019, Jharkhand along with Uttar Pradesh, Odisha, Bihar, Nagaland and Meghalaya are in the category of low performing states. In a group of 17 states categorized as Non-Himalayan states, Jharkhand’s Rank is 17th and this has remained unchanged since previous year. However, its score has increased by 5.18 between 2015-16 to 2017-18. In the FY 2015-16, Jharkhand’s score was 28.4 out of 100. In the FY 2016-17, it improved to 33.6 remained unchanged in the FY 2017-18.

Two positive results can be inferences from CWMI-2019 for Jharkhand. Firstly On-farm water use, 93 per cent of the area is cultivated as per agro-climatic zoning in the state and secondly in terms of Rural drinking

water: Jharkhand has fully covered almost all its rural habitations and has achieved a decline of 70 per cent in water-quality incidents.

Two Negative outcomes are also visible from CWMI-2019 for Jharkhand. Firstly in context of Groundwater restoration, the state has <33 per cent area mapped for ground water recharge, covered <10 per cent mapped area with recharge structures, and doesn’t have any groundwater management regulation and secondly in terms of Wastewater treatment, Jharkhand is the only ‘Non-Himalayan state’ with zero treatment capacity.

### D. Energy

Energy is crucial for faster economic growth. Jharkhand is blessed with a rich stock of natural resources which provides basic raw materials to generate renewable as well as non-renewable sources of energy. Thermal energy continues to be the main source of power in Jharkhand. However, in the recent past, the Hydro and Solar energy have increased their share significantly. As per table 16.24, the installed generating-capacity of electricity as on March 31, 2018 is 1.36 GW which includes 1.20 GW from thermal energy and 0.13 GW from hydro energy.

As per the Energy Statistics 2019 report, the estimated potential of renewable power in Jharkhand stands at 18,489 MW and it is 1.69 per cent of the total estimated potential available in the country as on March 31, 2018 (table-16.25). The Installed capacity of Grid interactive Renewable Power in Jharkhand as on 31.03.2017 and 31.03.2018 are 27.32 MW and 36.12 MW respectively. Thus, an increase of 32.21 per cent has been observed here (table 16.26).

**Table 16.24: Installed Generating Capacity of Electricity (Utilities) in Jharkhand as on 31.03.2017 and 31.03.2018**

(in Gw)

State	Hydro		Thermal		Nuclear		RES*		Total		Growth Rate (2017-18 to 2016-17)
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	
Jharkhand	0.13	0.13	1.78	1.20	0.00	0.00	0.03	0.03	1.93	1.36	-29.63

Source: Energy Statistics 2019.

\* RES: Other Renewable sources excluding hydro power

**Table 16.25: Source-wise Estimated Potential of Renewable Power in Jharkhand as on 31.03.2018**  
(in MW)

State	Wind Power @ 100m	Small Hydro Power	Biomass Power	Cogeneration-bagasse	Waste to Energy	Solar Energy	Total Estimated Reserves	Distribution ( per cent )
Jharkhand		209	90		10	18180	18489	1.69
India	302251	19749	17536	5000	2554	748990	1096081	100.00

Source: Energy Statistics 2019.

**Table 16.26: Installed Capacity of Grid Interactive Renewable Power in Jharkhand as on 31.03.2017 and 31.03.2018**

(In MW)

State	Small Hydro Power		Solar Power		Total		Growth Rate (2017-18 to 2016-17)
	2017	2018	2017	2018	2017	2018	
Jharkhand	4.05	4.05	23.27	32.07	27.32	36.12	32.21 per cent

Source: Energy Statistics 2019.

### Conclusion

The development and conservation of natural resources have got top priority in the state. Between the assessment period of 2017 and 2019 a total of 77 sq. km. of non-forest land have been converted into forest land in the state. It includes 58 sq. km. of VDF, MDF, OF and 19 sq. km. of scrubs. VDF and MDF have increased by 5 and 1 sq km whereas OF has increased by 52 sq km. It can also be highlighted here that the forest cover in the tribal districts of Jharkhand has increased. Inside RFA/GW the National tribal districts has recorded a decline of 741 sq. km., while, Jharkhand has recorded an increase of 15 sq. km. Since the implementation of CAMPA in Jharkhand (2009), a total of 27686.4209 hectares of forest land have been diverted for non-forest-usages. However, during the same period, a total of 1,03,406 hectares of land have been utilized for plantation too.

The development of mineral resources is quite advanced in the state. In the FY 2020-21, a total of 15,691 permits have been issued and Rs. 2,296.96 crores have been collected as royalty on 1,104 major and minor mines in the state (as on 11.11.2020). In terms of the royalty-collection, Dhanbad (Rs. 563.73 crores) is at the top followed by Chaibasa (Rs. 497.74 crores) and Chatra

(Rs. 274.13 crores). Apart from the other minerals, the state has also produced 36 kg gold between 2015-16 and 2017-18. The total revenue-collection from minerals in 2018-19 was Rs. 5,97,8.97 crores and in 2019-20, it is Rs. 5,16,5.82 crores.

As per the CWMI-2019 report, Jharkhand is among the poor performing states in managing its water-resources. However, it has improved its score by 5.18 between 15-16 and 17-18. In terms of on-farm water-use, 93 per cent of the cultivable area is cultivated as per agro-climatic zoning. In terms of rural drinking water, Jharkhand has fully covered almost all its rural habitations and has achieved a decline of 70 per cent in water-quality-incidents.

Apart from the development of non-renewable sources of energy, Jharkhand has also focused on the development of renewable sources. As per the Energy Statistics 2019 report, the estimated potential of renewable power in Jharkhand stands at 18,489 MW and it is 1.69 per cent of the total estimated potential available in the country as on 31st march 2018. The Installed capacity of Grid Interactive Renewable Power in Jharkhand as on 31.03.2017 and 31.03.2018 are 27.32 MW and 36.12 MW respectively. Thus, an increase of 32.21 per cent can be observed here.

# Chapter 17

## Tourism, Arts, Culture, Sports and Youth Affairs







Jharkhand has immense potential to become a highly attractive tourist destination. It has a number of beautiful natural spots, venerable religious spots and historical sites of tourist attraction. It has the potential to become a center of social, cultural and ecological tourism also.

### Tourism

A number of national and international tourists have visited Jharkhand over a period of time. In 2013 the number of national tourists was about 32.5 lakhs. It continued increasing over the years. In the year 2019, about 35.6 lakh national tourists visited the state. Similarly, the number of international tourists too increased over the years. The number of international tourists was 1.3 lakhs in 2013, which grew to 1.8 lakhs

in 2019. Between 2013 and 2019, the total inflow of tourists has increased at the compound annual growth rate (CAGR) of 1.55 per cent; the number of domestic tourists grew at the average annual rate of 1.53 per cent and that of the foreign visitors grew at the average annual rate of 4.7 per cent.

This shows that though international tourists form a very small proportion of the total tourist inflow in the state, the number of international tourists has increased at a much faster rate than that of national tourists. International tourists constitute less than 1 per cent of the total tourists inflow of the state. They constituted only 0.4 per cent and 0.5 per cent of the total tourists inflow of the state in the years 2013 and 2019 respectively.

**Table 17.1: Year Wise Tourist Inflow in Jharkhand**

Year	2013	2014	2015	2016	2017	2018	2019	CAGR
National	32477676	33427144	33079550	33389286	33723185	35408822	35580768	1.53
International	133664	154731	167855	169442	170987	175801	176043	4.7
Total	32611340	33581875	33247405	33558728	33894172	35584623	35756811	1.55

Source: The Department of Tourism, GoJ

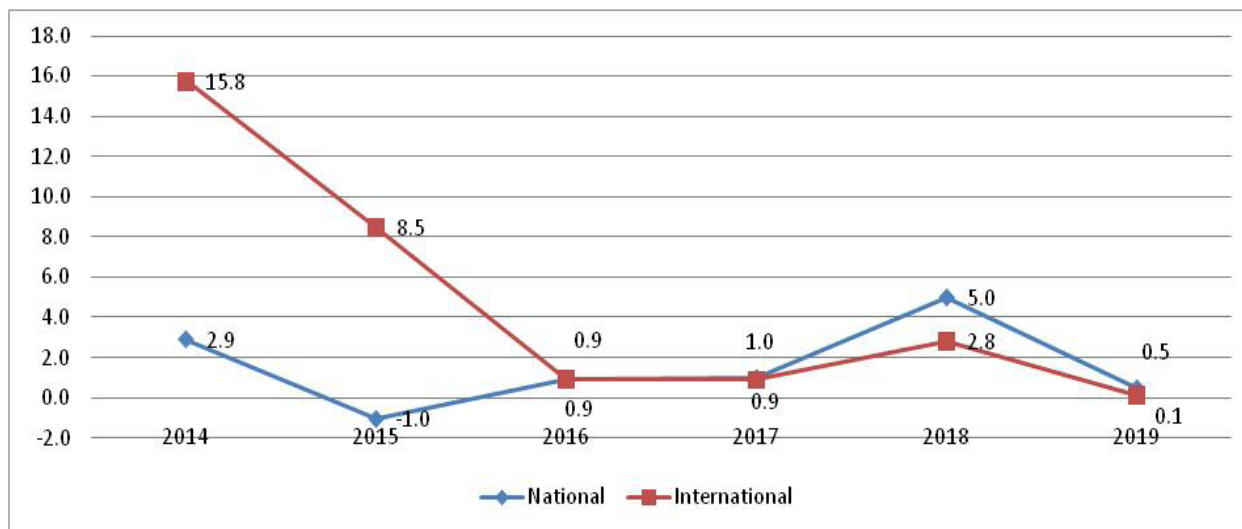
**Table 17.2: The proportion of National and International Tourists to Total Tourists Inflow in Jharkhand**

Year	2013	2014	2015	2016	2017	2018	2019	CAGR
National	99.6	99.5	99.5	99.5	99.5	99.5	99.5	99.6
International	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

There has always been a positive growth in the inflow of international national tourists in the state between the years 2013 and 2019. In comparison to the preceding year, the inflow of international tourists increased by 15.8 per cent in 2014. The growth rate of international tourists showed a declining trend thereafter, though remained positive throughout this period. From a growth rate of 8.5 per cent in 2015, it recorded a growth of 0.9 per cent in 2016 and 1 per cent in 2017. Its growth rate recovered marginally to 2.8 per cent in 2018 to decline further to 0.1 per cent in 2019.

The inflow of national tourists also mostly recorded a positive growth rate in the period 2013 and 2019. Except for the year 2015 when the number of national tourists declined marginally by 1 per cent, in all other years its growth rate remained positive. The growth rate in the inflow of the national tourists, however, remained very low. Except for 2014 and 2018, when it grew by 2.9 per cent and 5 per cent respectively, its growth rate remained less than 1 per cent in all other years.

**Figure 17.1: Growth in the National and International Tourist-Inflow in Jharkhand**



**Seasonality in the flow of tourists**

A seasonal analysis of the tourist inflow shows that the inflow of both the national and international tourists used to be very low between April to June, the summer and rainy seasons, but increased in July and August. Tourists prefer to visit hill stations during summer and during the rainy season avoid visiting Jharkhand where the rains obstruct movement during this season. They start visiting the state in large numbers in July and August. A large number of tourists visit Deoghar, one of the holy sites of Lord Shiva in these months. These two months coincide with the month of ‘Shravan’ a holy month for the worship of Lord Shiva. In comparison to the preceding months, in July 2019 the national tourists’ inflow increased by 44.7 per cent and the international tourists’ inflow by about 224 per cent and in August

2019 it increased by 29.2 and 39.8 per cent respectively.

International tourists, apart from the month of August, prefer to visit Jharkhand in the month of January. There is some variation in the seasonal movement of the national and international tourists. While the national tourists’ inflow after increasing sharply in August decreases drastically in September; the influx of international tourists, barring June when it is at its lowest level, and in January and August when it is at its peak, is almost evenly distributed throughout the year.

A month wise comparison of the years 2014 and 2019 shows that the highest growth in both the national and international tourist inflow took place in the month of August. In comparison to August 2014, the national tourists increased by 46.6 per cent and the international tourists by 28.9 per cent in August 2019.

**Table 17.2: Year Wise Tourist Inflow in Jharkhand**

	Domestic Tourist		International Tourist	
	2014	2019	2014	2019
January	3805131	3578364	18623	20453
February	3871296	3582165	16727	17993
March	1889523	2082024	11890	12492
April	2003707	2185399	13783	15176
May	2199189	2392772	16159	17738
June	2117258	2339841	3872	4229
July	2885821	4230895	10630	13705
August	5467295	5973741	17084	19161
September	2395825	2627091	12779	15180
October	2039785	1388009	12629	15156
November	2074909	2272712	8920	10518
December	2677405	2927755	11635	14242

Figure 17.2: Monthly Growth in the International Tourist-Inflow in 2019

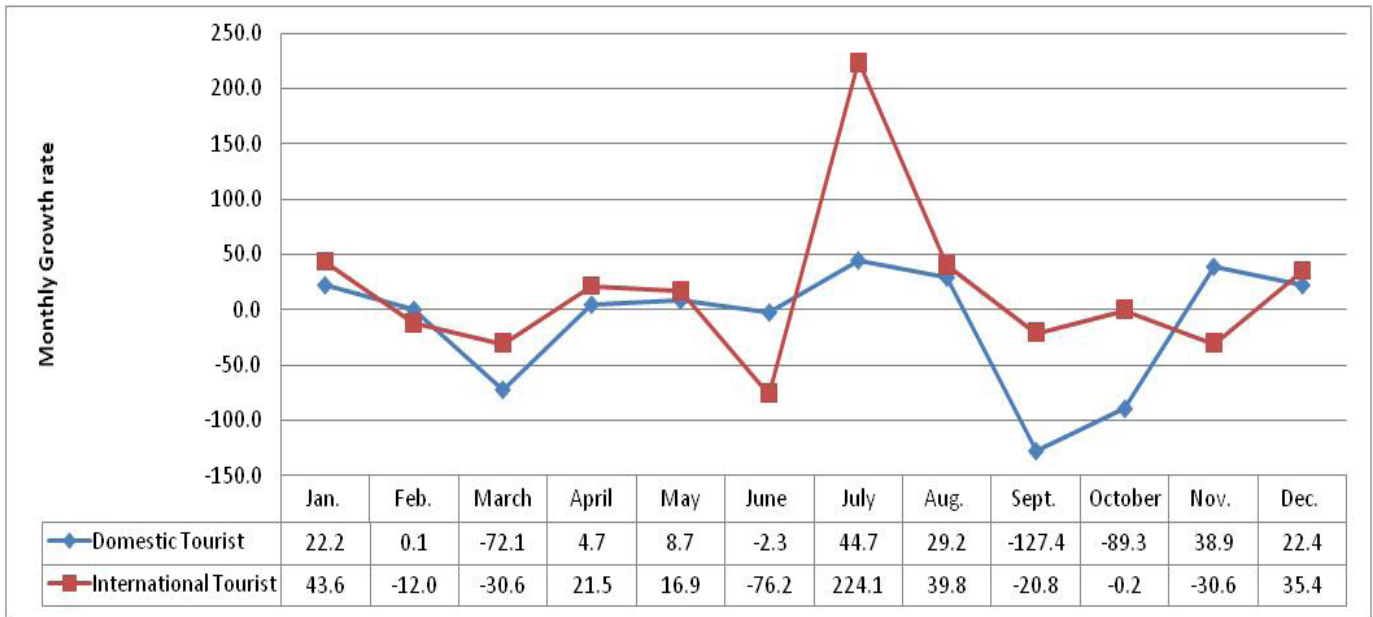
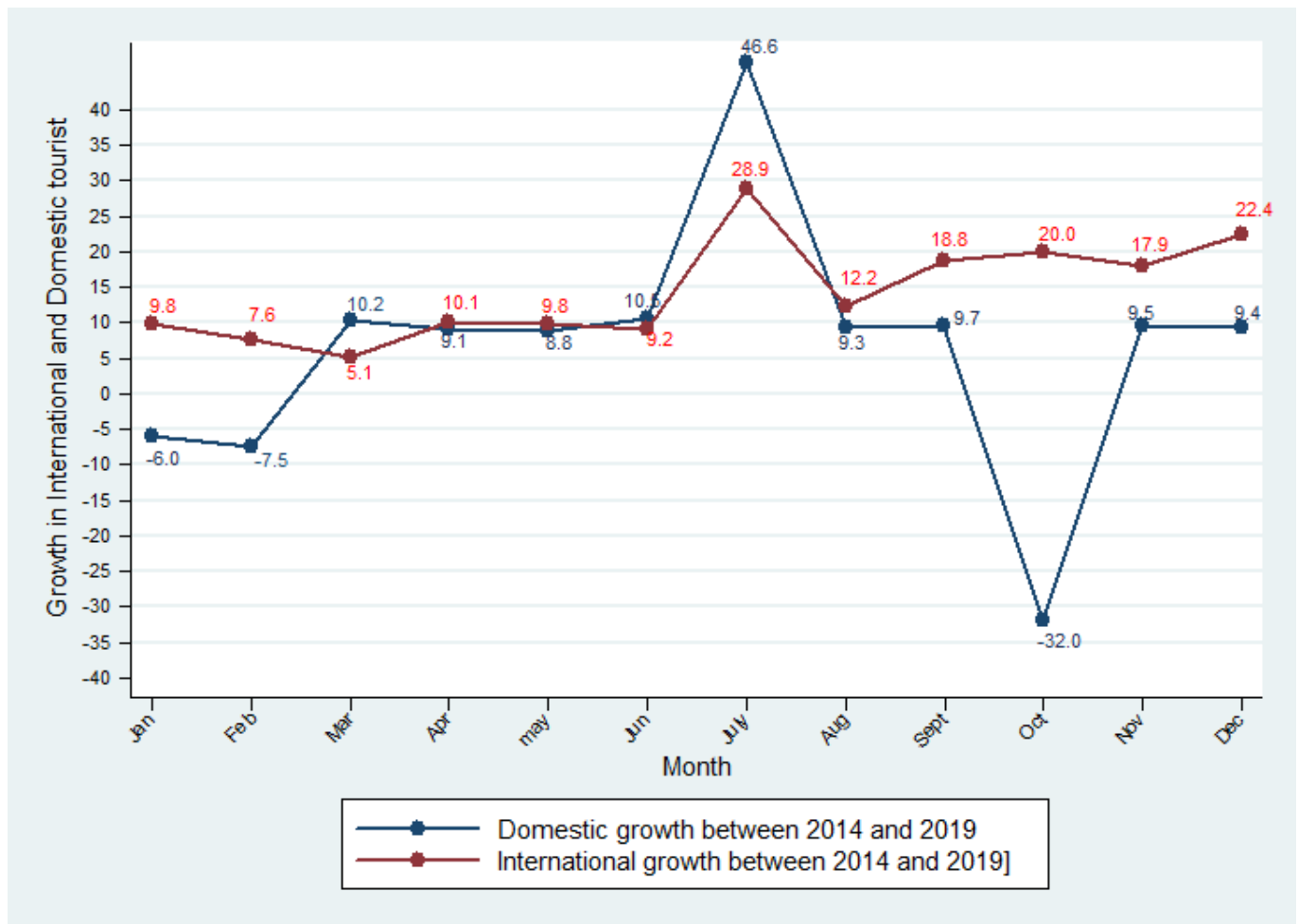


Figure 17.3: Monthly Growth in the International Tourist-Inflow in Jharkhand between 2014 and 2019



**Ranks of various States/UTs in domestic and foreign tourist visits during 2018**

On the basis of the percentage of inflow of tourists in the state to total inflow of tourists of all the states and union territories, Jharkhand ranks 13th in the inflow of national tourists and 17th in that of international tourists. Very few of the states have a very high percentage share in the inflow of both the domestic and international tourists, otherwise, the inflow of national and international tourists is not correlated. Goa, for example attracts a larger percentage of international tourists than national

tourists and Karnataka attracts more domestic tourists than international tourists. Karnataka has a 11.55 % share in the total domestic inflow; its share of total foreign inflow is just 1.88%. Similarly the share of Andhra Pradesh in the total domestic inflow is 10.50%, whereas the share of international tourist flow is just 0.97%.

Likewise, Maharashtra has a huge influx of international tourists and its share is 17.59% but in the domestic tourist inflow, its share is just 6.43%. Delhi too has a high share of international tourists i.e., 9.49% but its share in the domestic tourist inflow is just 1.57%.

**Table 17.3: Rank of states/UTs according to tourist inflow in 2018**

S. No.	State/UT	2018 (R)		Percentage Share		Rank 2018	
		Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
1	Andaman & Nicobar Island	498279	15242	0.03	0.05	31	28
2	Andhra Pradesh	194767874	281083	10.50	0.97	4	16
3	Arunachal Pradesh	512436	7653	0.03	0.03	30	30
4	Assam	5856282	36846	0.32	0.13	22	26
5	Bihar	33621613	1087971	1.81	3.77	14	9
6	Chandigarh	1538796	39681	0.08	0.14	25	25
7	Chhattisgarh	19329501	14399	1.04	0.05	16	29
8	Dadra & Nagar Haveli	609435	1608	0.03	0.01	29	34
9	Daman & Diu	898824	5694	0.05	0.02	28	32
10	Delhi *	29114423	2740502	1.57	9.49	15	4
11	Goa	7081559	933841	0.38	3.23	21	10
12	Gujarat	54369873	513113	2.93	1.78	9	12
13	Haryana	4888952	73977	0.26	0.26	23	23
14	Himachal Pradesh	16093935	356568	0.87	1.23	18	14
15	Jharkhand	35408822	175801	1.91	0.61	13	17
16	J&K	17076315	139520	0.92	0.48	17	20
17	Karnataka	214306456	543716	11.55	1.88	3	11

S. No.	State/UT	2018 (R)		Percentage Share		Rank 2018	
		Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
18	Kerala	15604661	1096407	0.84	3.80	19	8
19	Lakshadweep	10435	1313	0.00	0.00	36	35
20	Madhya Pradesh	83969799	375476	4.53	1.30	8	13
21	Maharashtra *	119191539	5078514	6.43	17.59	5	2
22	Manipur	176109	6391	0.01	0.02	33	31
23	Meghalaya	1198340	18114	0.06	0.06	27	27
24	Mizoram	76551	967	0.00	0.00	35	36
25	Nagaland	101588	5010	0.01	0.02	34	33
26	Odisha	15208540	110818	0.02	0.38	20	21
27	Puducherry	1616660	141133	0.09	0.49	24	19
28	Punjab	44595061	1200969	2.40	4.16	11	7
29	Rajasthan	50235643	1754348	2.71	6.08	10	5
30	Sikkim	1426127	71172	0.08	0.25	26	24
31	Tamil Nadu	385909376	6074345	20.80	21.04	1	1
32	Telangana	92878329	318154	5.01	1.10	6	15
33	Tripura	414388	102861	0.02	0.36	32	22
34	Uttar Pradesh	285079848	3780752	15.37	13.09	2	3
35	Uttarakhand	35609650	151320	1.92	0.52	12	18
36	West Bengal	85657365	1617105	4.62	5.60	7	6
	Total	1854933384	28872384	100.00	100.00		

Source: India Tourism Statistics, 2019.

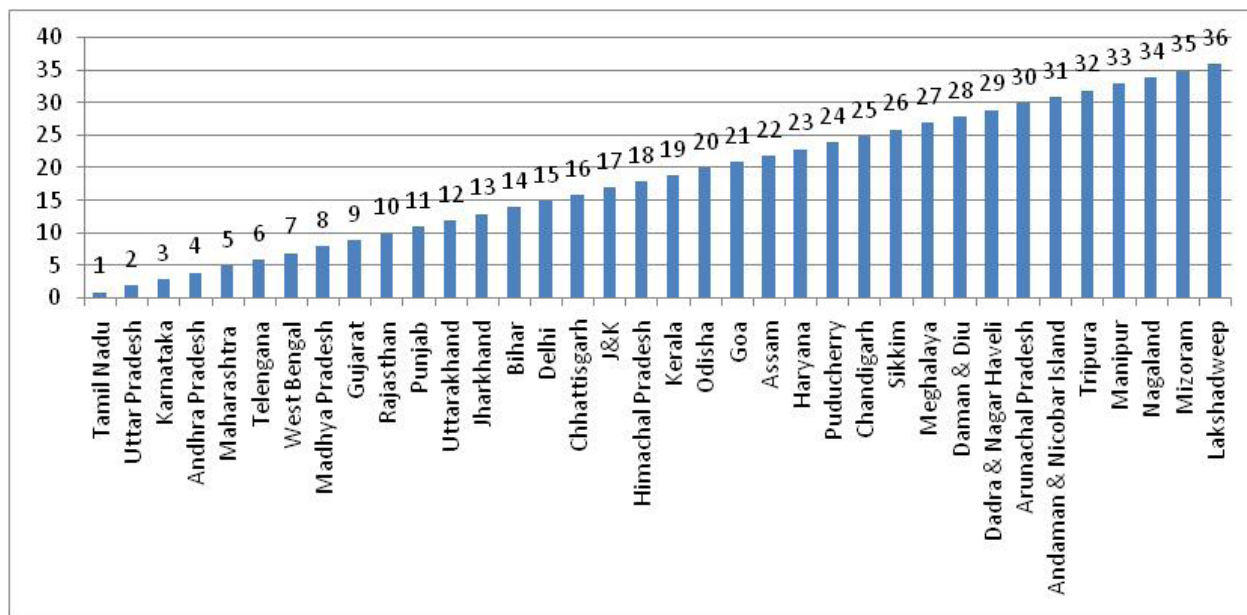
(R): Revised, \* Figure of 2017 repeated for 2018

The following graphs show the percentage share of top 10 States/UTs in terms of domestic tourist visits and Foreign tourist visits in 2018

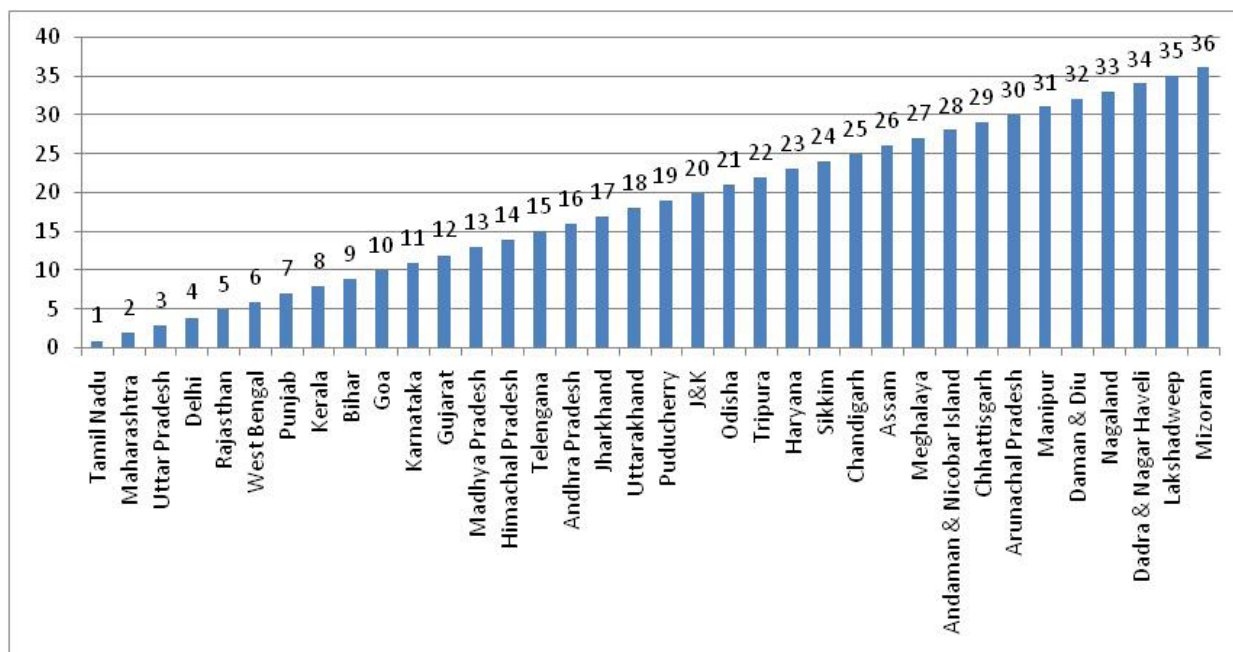
Graph 17.3a and 17.3b show the rank of all the states in terms of the inflow of domestic and international tourists. As graph 3a and 3b show that Tamil Nadu is ranked first both for the influx of the highest number of domestic and international tourists. In the domestic

tourist inflow, apart from Tamil Nadu, Uttar Pradesh, Karnataka, Andhra Pradesh, Maharashtra and Telangana are the top 5 states. Jharkhand ranks 13 in the domestic tourist inflow. In the international tourist inflow, apart from Tamil Nadu, Maharashtra Uttar Pradesh, Delhi, Rajasthan and West Bengal are the top 5 states. Jharkhand ranks 17 in the international tourist inflow.

**Figure 3a: Rank of all the states according to Domestic Tourist inflow in 2018**



**Figure 3b: Rank of all the states according to International Tourist inflow in 2018**



**Box 17.1 : Some of the Important Tourist Attractions of the state**

Some of the Important Tourist Attractions of the state are given below: -

1. Religious Places – Baidyanath Dham, Parasnath, Rajrappa, Maithan, Basukinath, Liloristhan, Shakti Mandir, etc.
2. Pleasure Sites – Parasnath, Basukinath, Trikut hill, Nandan hill, Maithan Dam, Panchet Dam, Tilaiya Dam, Rajrappa, Ramgarh, Hundru falls, Jonha falls, Usri falls, Gautam Dhara, Dimna Lake, Dasham falls, Topchanchi, Masanjore Dam, etc.
3. Health resorts/retreats – Netarhat, Ramgarh, Ghamaria, Parasnath, Angada, Ghatshila, Hazaribagh, etc.
4. Wild life/forests – Ghatshila, Hazaribagh, Koderma, Chaibasa, Gumla etc.
5. Eco-tourism – Netarhat, Hazaribagh, Chaibasa, Ghatshila, Rajmahal hills etc.
6. Miscellaneous – Central Mining Research Station, Indian School of Mines, Indian Lac Research Institute, BIT Mesra, BIT Sindri, Coal Mines, Forests etc.

### Box 17.2 : BETLA NATIONAL PARK

One of India's earliest tiger reserves (1974), Betla features a luxuriant tropical forest cover and a rich variety of fauna. The Betla National Park was first established as a sanctuary and later upgraded to its present status. Its average elevation is about 1000 feet and though the park is open throughout the year, the best time to visit it is between November and March. Spread over 250 sq. kms., the park is covered with good roads criss-crossing each other, to enable motorists to have a closer view of the wild life in these dense forests. Gours, chitals, elephants, tigers, panthers, sloths and wild bears, sambhars, nilgais, kakars, mouse deer are the permanent residents of the forest. Langurs are present in large families. Betla features waterfalls and natural hot springs on the one hand, and historical monuments including a 16th century fort of the Chero kings on the other.



Betla is situated 25 kilo meters away from Daltonganj, 70 kms. from Latehar and 170 kms. from Ranchi. It is well connected both by rail and road. The nearest airport is Ranchi which is about 180 kms. away from Betla. Daltonganj and Barwadih are the nearest railway stations where all the trains passing through this route have stoppage. Betla also has a luxuriant cover of saltree, bamboo and miscellaneous trees. About 226 sq. kms. of Betla forest have been declared “Betla National Park” and 753 sq. kms. of the forest have been declared the “Palamu Sanctuary”. The forest starts from Kechki and extends up to Netarhat. The forest has 970 species of identified plants, 174 species of birds, 39 species of mammals, 180 species of medicinal plants, besides reptiles and other species. There is a proposal to create a tourist complex at Barwadih, which has a police station, a post office, a market, health facilities and block headquarters. Accommodation is available in forest tourist cottages and the forest rest house of the Tourism Department. Private hotels, with well-furnished accommodation are also available. Private jeeps with guides are available to go around the area. There are two elephants available at Betla for tourists to get around the reserve to see the wild animals. The Palamau Tiger Reserve is very rich in biodiversity and various wild life species of this reserve have been included in the Red Data book of the I.U.C.N. (International Union for Conservation of Nature and Natural Resources) and the appendices of C.I.T.E.S. (Convention on International trade in Endangered Species of Flora and Fauna).



## Arts and Culture

Tribal communities, with a rich cultural tradition, pursuing different art forms, dominate the cultural landscape of Jharkhand. The art, culture, and life of this region in general, and the tribal communities in particular, have been shaped by a balance among “nature, man and spirit<sup>1</sup>”.

Nature plays an indispensable role in the life and culture of Jharkhand. Parts of sacrosanct trees are brought and formally planted in the courtyards. Devotees then worship these tree-parts. The Poush Mela or Tusu Fair is a significant event celebrated during Makar Sankranti wherein splendidly shaded and incredibly finished symbolic artifacts of a folk deity are worshipped by individuals.

Besides nature, the tribals of this region worship their ancestors. Tusu is a societal conviction, not about any god or goddess, but rather about a sweet young lady of their ancestry. The celebration happens as new yields are gathered. The whole celebration is a vivid one. The state is immersed in the celebration of ancestors.

In the entire Chotanagpur Plateau Region, the Karam Festival is celebrated by the people of this region with a great deal of fanfare. Among the Oraon Tribes, the Karama cuisine is of great significance and plays an indispensable role in their celebration of this festival. Being a vital local celebration of this state, it is celebrated by the Oraons and other local communities. In its current re-encapsulation, the celebration has spread all over, from the rural to the urban atmosphere and from tribal to other communities of the state.

The food of Jharkhand is customary and is a blend of the food of the different areas of Jharkhand State. The food prepared in Jharkhand is viewed as good in taste, simple to process and light on the stomach. The beverage made up of rice, known as Handiya, named after the earthen pot in which it is made is very popular in this area. Handiya is socially connected with the the tribals and other local inhabitants, locally known as Sadan. This beverage is

<sup>1</sup> The concept of ‘Nature-Man-Spirit complex’ was put forth by L.P Vidyarthi in his book “The Maler: A Study in Nature-Man-Spirit Complex” in which he describes the culture of a hill tribe ‘the Maler’ in terms of this complex where the three ingredients of the complex are interdependent and mutually complementary. It is based on the fact that arising out of man's close interaction with, and dependence on nature is his belief in the supernatural and the spirit world. It has been found that the life and culture of the whole tribal society is based on an intimate relationship and interaction between social organizations on one hand and religious complex and ecological conditions on the other.

enjoyed by the people of this region on social events like marriage and different celebrations.

## The main tribal festivals of Jharkhand:

### IND MELA

Ind Mela starts after the celebration of Ramrekhadham in the Simdega district. The Village deity is worshiped by the Pahan on this occasion. The Mela or the fair continues overnight. All the people participate on this occasion. Akhara is prepared where everyone dances. Kali, a female dancer from the village is the main attraction of the festival. While erecting the Ind pole they recite some prayers.

### SARHUL

This is the main festival of the tribal population of Jharkhand. The verbal meaning of Sarhul is worship of the sal tree. Sarhul can also be redefined as the worship of nature in which the local people worship Sita, the wife of Lord Rama, as ‘Dhartimata’. They also worship the Sal tree, which is believed to be the abode of goddess Sarna who protects the village from all kinds of natural calamities and disasters.

### HAL PUNHYA

Here the cultivation year begins with the fall of winter. The first day of the Magh month which is known as Akhain Jatra or Hal Punhya, means the beginning of ploughing. The farmers, to symbolize this auspicious morning, plough two and half circles of their agricultural land. This day is also considered to be the symbol of good fortune.

### BHAGTA PARAB

Bhagta Parab, namely the festival of the devotees symbolizes the end of the spring season and the beginning of the summer season. Among tribals, it is popularly known as the worship of Budha Baba because here it has got its own meaning and procedure of worshipping. Bhagtas or devotees fast for the worship. In the evening they carry their village priest called Laya from the bathing pond to the temple. It is a peculiar sacrificial scenario when the Laya gets out of the pond after bathing and the devotees form a chain, locking their thighs with each other and come forward to offer their bare chest to Layatowalk over. After the evening worship, devotees take part in the dynamic and vigorous Chhau Dance. The next day, a primitive sport of bravery is observed. The devotees pierce hooks on the back of their skin and get

is tied at one end of a long horizontal wooden pole, which is hanging on the top of a vertical Sal wood pole, at a height of about 30 feet or sometimes 50 feet. Now the other end of the horizontal pole which is connected with a rope, is pulled around the pole by the people; the tied devotee displays a breath-taking dance in the air.

### **ROHIN**

Perhaps the first folk festival of this land is Rohin. It is a symbolic festival of sowing seeds in the field. Farmers begin sowing seeds from this day. There is no dance or song like during other festivals but just a few rituals. There are also some other festivals along with Rohin and they are Rajsawala Ambavati and Chitgomha.

### **KARAM**

The Karam festival is celebrated in the month of Bhado in August-September. This festival is related to agriculture and prosperity. This festival is also related to familial bonds of brothers and sisters. On this day unmarried girls observe a fast. In the evening before sun-set a group of unmarried boys and girls fetch Karam branches to the dancing ground or the courtyard of a particular family where the ritual is to be collectively performed.

### **BANDNA**

Perhaps the most popular festival is Bandana Parab during the new moon of the Kartik. This festival is mainly for the benefit of animals and symbolises animal worship. The songs of this festival are called Ohira. Farmers clean their animals, feed them well, give them complete rest, decorate and ornament them. They sing songs of admiration as an acknowledgement of their contribution. Primitive people believe that animals also have spirits which might harm or benefit them. So as to pacify these spirits as well as for better performance they worship their animals. The climax of the week long festival is reached on the last day. Bulls and buffalos are chained to a strong pole and they are attacked with a dry animal hide. The angry and excited animals hit the dry skin with horns and the crowd enjoys looking at their vigorous, anger and excitement. A unique aspect of Bandna is the walls decorated with folk-painting.

### **TUSU OR MAKAR**

Here the most common festival is Tusu or the harvest festival celebrated during winter on the last day of Pous month. It is also for unmarried girls. For them Tusu is endowed with grace and elegance who may fulfill their desires. Though there is no history behind this festival,

there are some rituals and customs and it has a rich store of lively songs. The stories and experiences of livelihood are reflected through these songs. It is deeply effective: that one can realize the simplicity of the innocent people of this land.

### **Handicraft**

The handicraft work of Jharkhand is done by its various clans and specialists; it depicts the rich convention of workmanship and culture of the state. The different artwork of Jharkhand incorporates bamboo creations, wood craft, pitkar works of art, ancestral trimmings and stone cutting. Being rich in woodlands and wood, Jharkhand creates some great pieces of craft work from wood and related materials. Pitkar compositions and stone cutting are different specialities that interest people across the nation. In addition, the ancestral trimmings are interesting and exhibit extraordinary artistry and depict the legacy of their ancestors. Toy making is another art practiced by the people of this state. The brilliant and fascinating toys are given different shapes of fowls and other animals. Different categories of Jharkhand handicraft include wooden craft, bamboo work, metal work, stone carvings, ornaments, toy making, tribal craft. A variety of handicraft are popular in the state of Jharkhand. Some of the popular varieties are Baans Shilp, Bhati Chih, Cast Shilp, Dhaatu Shilp, Godna, Ledra Shilp, Mukhawta Shilp, Prastar Shilp, MrinShilp and Wadhya Yantra Shilp.

### **Dance**

The majority of Jharkhand's moves are motivated by concepts of war, hunting, farming, dedication and different viewpoints of life in Jharkhand. The craft of dance and music is moved starting with one age then onto the next (This sentence has to be revised. The meaning is obscure). This Jharkhandi dance mirrors the pride, personality and greatness of this region. Dancing in Jharkhandi society is also called play, Khel, Khalak. 'Akhara Khalek' meaning dance in Akhara. The very popular Chhau dance of Jharkhand has a unique identity. UNESCO included this form of dance in Heritage Dances in the year 2010. This is a male dominated dance which is performed with or without masks. To attack or to hunt secretly is also a description of this dance. Chhau dance, originating from Jharkhand is now integrated in the cultures of Odisha and West Bengal. This dance has become a part of the cultures of these three states. There are four varieties of this dance – Saraikela Chhau (Jharkhand), Mayurbhanj Chhau (Odisha), Purulia

Chhau (W. Bengal) and Singua Chhau of the Khunti district of Jharkhand. According to Tapan Kumar Patnaik, Director-Guru of the Chhau Dance Centre, the real origin of the Chhau dance is in the Saraikela district of Jharkhand. Kadsa dance is a style of dance performed while carrying a ‘Kalash’ (earthen pot). This is a female dominated dance. Normally in this dance style, women perform carrying a ‘Kalash’ on their shoulders or heads. Usually, males are not included in this dance. Men just play instruments. This dance is performed during seasonal festivals, or for welcoming a guest.

**Initiatives:**

There are 3 Government Institution where around 300 pupils are being trained in different dance forms. Rajkiye Chhau Nirtrya Kala Kendra, Seraikela and Rajkiye Manbhum Chhau Nirtrya Kala Kendra, Silli have been imparting training in Chhau Dance whereas Jharkhand Kala Mandir, Ranchi, trains people in other local dance forms.

**Language as identity and culture of Jharkhand**

Even after a long history of ancestral dialects which carry the impact of different societies, the ancestral dialects of Jharkhand are as yet alive. In Jharkhand just 4 per cent of the populace communicates in Hindi in their homes, and 96 per cent of the rustic populace talk in their native language or territorial dialects. 33% of the populace speak Santhali in their homes, while 17.5 percent speak Kharia, 9.5 per cent speak Kurukh, 7.6 per cent speak Mundari and 5.7 per cent speak Ho. Other than these, there are local dialects, for example, Kurmali,

Nagpuria, PanchPargonia, Khortha, Bengali and so forth are spoken. This is the information uncovered by the Tribal Research Institute and the overview was supported by UNICEF, which conducted a survey that was completed in 216 towns of 72 Blocks in all the 24 districts of Jharkhand. The overview says that there is a huge gap between the language verbally spoken in the rustic zones and the one taught in schools. 97 percent students communicate in their ancestral or territorial dialects where as 92 percent instructors teach through Hindi in the schools. 97 percent youngsters revealed that their books in the schools are in Hindi. 78 per cent instructors said that because of the correspondence gap, there are many obstacles. The 97 percent country individuals who communicate in ancestral or provincial dialects can communicate in Hindi too, yet 50% of them talk erroneous Hindi. Bengali and Oriya are spoken by a few locals of Jharkhand. Urdu is the second state dialect of Jharkhand since the time Jharkhand was part of Bihar. Kurukh is spoken in the locale of Gumla, Simdega, Lohardaga, and Ranchi by the Oraons, where as the Malto, another Dravidian Language of the state is spoken by the Sauria Paharias and Mal Paharias. The Sauria Paharias are found in the Rajmahal Hills of Santhal Pargana. The Santhali language is spoken in the areas of Santhal Pargana, Hazaribagh and east Singhbhum region with some variety in recurrence. However, Santhali is a rich language in distribution, and in writing with its own content, Ol-Chiki. Be that as it may, improvement of the language has not percolated to the grass root level. In Jharkhand, as many as eleven languages have achieved the status of the second language of the state.

**Table 17.4 : These languages cover the following districts:**

Kurukh	Ranchi, Khunti, Lohardaga, Gumla, Simdega, W. Singhbhum, E. Singhbhum, Latehar, Palamu, Garwa, Hazaribagh, Ramgarh, Chatra.
Kharia	Ranchi, Khunti, Gumla, Simdega,
Mundari	Ranchi, Khunti, Gumla, Simdega, West Singhbhum, East Singhbhum, Saraikela.
Bhumij	West Singhbhum, East Singhbhum, Saraikela
HO	West Singhbhum, East Singhbhum, Saraikela
Santhali	East Singhbhum, Saraikela. Dumka, Jamtatar, Sahebganj, Pakur, Godda, Hazaribagh, Ramgarh, Koderma, Chatra, Bokaro, Dhanbad, Giridih, Deoghar.
Malto	Dumka, sahebganj, Pakur, Godda
Kurmali	Ranchi, khunti, West Singhbhum, East Singhbhum, Hazaribagh, Ramgarh, Koderma,, Bokaro, Dhanbad, Giridih

Nagpuri	Ranchi, Khunti, Gumla, Simdega, Latehar, Palamu, Garwa Hazaribagh, Ramgarh, Chatra, Bokaro, Dhanbad.
PanchPargonia	Ranchi, Khunti, Saraikela.
Khortha	Dumka, Jamtara, Sahebganj, Pakur, Godda, Hazaribagh, Ramgarh, Koderma, Chatra, Bokaro, Dhanbad, Giridih, Deoghar.
Banagla	Ranchi, Khunti, Saraikela, E. Singhbhum, Dumka, Jamtara, Sahebganj, Pakur,
Oriya	W. Singhbhum, E. Singhbhum
Bhojpuri	Latehar, Palamu, Garwa
Maghi	Latehar, Palamu, Garwa.
Angika	Dumka, Jamtara, Sahebganj, Pakur, Godda, Deoghar
Birhor	Hazaribagh, Ramgarh, Chatra. Asur: Latehar, Palamu

Initiatives: - The Department of Tourism, Art Culture, Sports & Youth Affairs executes various schemes such as- Subah-Savere Saniparab, Bhado Mahotsav, Tribal Festival and cultural programmes in various Festivals/ Fairs to conserve and keep alive the Folk Art & Culture of Jharkhand.

#### Developments:-

- Artists from Jharkhand secured the 2nd and 3rd positions in the National Tribal Dance Festival, Raipur (Chhattisgarh).
- A compiled documentation was published on Itkhori archaeological features. 20 Temples of Maluti have been conserved till now.
- Organizing Gandhi Panorama program on the eve of the 150th Birthday Celebration of Mahatma Gandhi
- Around 300 pupils getting training in different dance & art forms in various institutions such as: Jharkhand Kala Mandir, Hotwar, Ranchi, Rajkiye Chhau Nirtrya Kala Kendra, Saraikela and Rajkiye Manbhum Chhau Nirtrya Kala Kendra, Silli.
- Departments have sanctioned grants to various NGOs to promote local art & culture.

#### Sports & Youth Affairs

Initiatives: There are around 89 Day-Boarding Centers and 36 Residential Centers sanctioned and are running by this department wherein around 2994 trainees are getting a high-level sports training. Beside this the department construct infrastructure for sports in various districts. To

promote youth activities the department, allot fund for entire establishment part of National Cadet Core and has also sanctioned grants for scout and guides.

#### Status and activities of Sports University, Sports Academies

This department has got one Sports University which is likely to start functioning from the next financial year. It is worthy of notice that a sports academy named JSSPS running under the aegis of Jharkhand Govt. & Central Coal Fields under imparts training to 445 aspirants enrolled for better sports training.

#### Sports events organised over the past two years

**Table 17.5 : Sports events organised over the past two years**

Year	Name of the Sports Event
2019-20	Subroto Mukherji Football Tournament
	Nehru Hockey Tournament
	SGFI Tournament (Block, Dist., State Level)
	Mukhya Mantri Amantran Football Tournament
	Inter Residential and Day-Boarding Tournament
	All India Civil Services Tournament
	RAN-O-THON (Half Marathon)
2020-21	No organization of any sports event due to COVID-19

**Schemes to Promote Sports in the State**

**Table 17.6 : Centre of Excellence, Residential Sports Training Centres & Day-Boarding Centres**

Name of the Centre	No. of Centres	No. of Trainees
Day-Boarding Centers	89	2225
Residential Centres	25	600
SAJHA KridaKishlay Kendra	12	342
SAJHA Residential Centres	10	169
Eklavya Khel Kendra (Centre of Excellence)	03	91
Total	139	3427

**Conclusion:**

Jharkhand, because of its ecological and religious sites attracts a large number of Indian and foreign tourists. But it is still much less explored as a tourist destination. It, however, can hope to attract more tourists. It will depend on a combination of good facilities, well-trained service providers and a better law and order situation. Due to the COVID-19 Pandemic there is a great challenge for the tourism industry to revive itself. Various initiatives have

been taken by the Department of Tourism, Art Culture, and Sports & Youth Affairs to conserve and keep alive the folk art & culture of Jharkhand. This department has allotted funds to promote youth activities too. Sports academies are going to be professionally managed with special emphasis on skill-development and concentration on scientific methodology to develop world class players from amongst the students.

# STATISTICAL APPENDICES





**STATISTICAL APPENDIX**

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**Appendix 1: Gross State Domestic Product (GSDP) of Jharkhand at current prices (2011-12)**  
(Rs. in Lakh)

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
1.	Agriculture, forestry and fishing	2233546	2550211	2844224	4016315	3146379	4033246	4592177	4572199	5090224
1.1	Crops	1342099	1611776	1812103	2078016	1671596	2281657	2587638	2305138	2490324
1.2	Livestock	477585	459416	493408	560096	627292	668398	940805	1201211	1370388
1.3	Forestry and logging	357560	399912	438925	1269256	719292	915319	830342	799126	896418
1.4	Fishing and aquaculture	56302	79107	99788	108947	128199	167872	233392	266724	333095
2.	Mining and quarrying	1620374	1879069	1858615	2072180	2017988	1730740	1912748	2070758	2144597
	Primary	3853920	4429280	4702839	6088495	5164367	5763986	6504925	6642957	7234821
		6317718	7435166	7553825	8242605	7153109	7977219	9175781	10225669	10951379
3.	Manufacturing	3016583	3797607	3660373	4065135	2979923	4155031	4845268	5331351	5783210
4.	Electricity, gas, water supply & other utility services	241235	302773	335541	354547	429292	205152	311899	464622	510229
5.	Construction	1439526	1455717	1699296	1750743	1725906	1886296	2105866	2358938	2513343
	Secondary	4697344	5556097	5695210	6170425	5135121	6246479	7263033	8154911	8806782
6.	Trade, repair, hotels and restaurants	1152143	1383070	1595751	1802433	2016053	2386888	2771318	3193307	3694889
6.1	Trade & repair services	1065983	1272474	1479141	1658001	1863574	2224299	2596592	3000655	3478768
6.2	Hotels & restaurants	86160	110596	116610	144432	152479	162589	174726	192652	216121
7.	Transport, storage, communication & services related to broadcasting	975954	1148809	1325607	1498718	1625466	1742163	1801522	1953023	2159151
7.1	Railways	297906	362089	404019	487006	496364	528174	538624	566238	620647
7.2	Road transport	458247	530804	608092	650028	696942	760663	802121	882083	968589
7.3	Water transport	0		0	0	0	0	0	0	0

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
7.4	Air transport	1373	2448	3362	3917	6725	8691	13020	11143	15028
7.5	Services incidental to transport	22315	26547	27554	26588	26385	40141	40347	37870	40842
7.6	Storage	384	388	378	301	302	327	186	422	428
7.7	Communication & services related to broadcasting	195729	226533	282202	330878	398748	404167	407224	455267	513617
8.	Financial services	414386	462493	509609	561609	656232	645520	724719	797749	875999
9.	Real estate, ownership of dwelling & professional services	1101151	1290003	1450196	1602263	1729747	1917845	2147549	2465018	2765771
10.	Public administration	981782	927373	928783	1161608	1131223	1180297	1875286	2072374	2305784
11.	Other services	736279	885544	1045235	1194020	1229313	1303935	1150929	1349119	1471034
	Tertiary	5361695	6097292	6855181	7820651	8388034	9176648	10471323	11830590	13272628
12.	TOTAL GSVA at basic prices	13912959	16082669	17253230	20079571	18687522	21187113	24239281	26628458	29314231
13.	Taxes on Products	1511500	1822100	1992669	2147532	2323997	2911948	3107749	3782289	4311827
14.	Subsidies on products	332700	432400	389228	374586	350239	474089	365416	690374	766257
15.	Gross State Domestic Product	15091759	17472369	18856671	21852517	20661280	23624972	26981614	29720373	32859801
16.	Population ('00)	333020	338480	344020	349660	355380	361210	366460	371800	377150
17.	Per Capita GSDP (Rs.)	45318	51620	54813	62496	58139	65405	73628	79936	87127
Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)										
<i>Note- P=Provisional, Pr=Projected.</i>										

**Appendix 2: Growth (YoY) Gross State Domestic Product (GSDP) of Jharkhand at current prices (2011-12)**

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	14.18	11.53	41.21	-21.66	28.19	13.86	-0.44	11.33
1.1	Crops	20.09	12.43	14.67	-19.56	36.50	13.41	-10.92	8.03
1.2	Livestock	-3.80	7.40	13.52	12.00	6.55	40.76	27.68	14.08
1.3	Forestry and logging	11.84	9.76	189.17	-43.33	27.25	-9.28	-3.76	12.17
1.4	Fishing and aquaculture	40.50	26.14	9.18	17.67	30.95	39.03	14.28	24.88
2.	Mining and quarrying	15.97	-1.09	11.49	-2.62	-14.23	10.52	8.26	3.57
	Primary	14.93	6.18	29.46	-15.18	11.61	12.85	2.12	8.91
	Industry	17.69	1.60	9.12	-13.22	11.52	15.02	11.44	7.10
3.	Manufacturing	25.89	-3.61	11.06	-26.70	39.43	16.61	10.03	8.48
4.	Electricity, gas, water supply & other utility services	25.51	10.82	5.66	21.08	-52.21	52.03	48.97	9.82
5.	Construction	1.12	16.73	3.03	-1.42	9.29	11.64	12.02	6.55
	Secondary	18.28	2.50	8.34	-16.78	21.64	16.27	12.28	7.99
6.	Trade, repair, hotels and restaurants	20.04	15.38	12.95	11.85	18.39	16.11	15.23	15.71
6.1	Trade & repair services	19.37	16.24	12.09	12.40	19.36	16.74	15.56	15.93
6.2	Hotels & restaurants	28.36	5.44	23.86	5.57	6.63	7.46	10.26	12.18
7.	Transport, storage, communication & services related to broadcasting	17.71	15.39	13.06	8.46	7.18	3.41	8.41	10.55
7.1	Railways	21.54	11.58	20.54	1.92	6.41	1.98	5.13	9.61
7.2	Road transport	15.83	14.56	6.90	7.22	9.14	5.45	9.97	9.81
7.3	Water transport								
7.4	Air transport	78.30	37.34	16.51	71.69	29.23	49.81	-14.42	34.87
7.5	Services incidental to transport	18.96	3.79	-3.51	-0.76	52.14	0.51	-6.14	7.85
7.6	Storage	1.04	-2.58	-20.37	0.33	8.28	-43.12	126.88	1.36
7.7	Communication & services related to broadcasting	15.74	24.57	17.25	20.51	1.36	0.76	11.80	12.82
8.	Financial services	11.61	10.19	10.20	16.85	-1.63	12.27	10.08	9.81
9.	Real estate, ownership of dwelling & professional services	17.15	12.42	10.49	7.96	10.87	11.98	14.78	12.20
10.	Public administration	-5.54	0.15	25.07	-2.62	4.34	58.88	10.51	11.26
11.	Other services	20.27	18.03	14.23	2.96	6.07	-11.73	17.22	9.04
	Tertiary	13.72	12.43	14.08	7.25	9.40	14.11	12.98	12.19
12.	TOTAL GSDP at basic prices	15.59	7.28	16.38	-6.93	13.38	14.41	9.86	10.09
13.	Taxes on Products	20.55	9.36	7.77	8.22	25.30	6.72	21.71	14.00
14.	Subsidies on products	29.97	-9.98	-3.76	-6.50	35.36	-22.92	88.93	10.99
15.	Gross State Domestic Product	15.77	7.92	15.89	-5.45	14.34	14.21	10.15	10.56
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.45	1.46	1.44
17.	Per Capita GSDP (Rs.)	13.91	6.18	14.02	-6.97	12.50	12.57	8.57	8.99

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 3: Contribution of Sector Gross State Domestic Product (GSDP) of Jharkhand at current prices (2011-12)**

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	14.80	14.60	15.08	18.38	15.23	17.09	16.62	14.87	14.83
1.1	Crops	8.89	9.22	9.61	9.51	8.09	9.66	9.37	7.49	7.26
1.2	Livestock	3.16	2.63	2.62	2.56	3.04	2.84	3.41	3.91	3.99
1.3	Forestry and logging	2.37	2.29	2.33	5.81	3.48	3.89	3.01	2.60	2.61
1.4	Fishing and aquaculture	0.37	0.45	0.53	0.50	0.62	0.71	0.84	0.87	0.97
2.	Mining and quarrying	10.74	10.75	9.86	9.48	9.77	7.35	6.92	6.73	6.25
	Primary	25.54	25.35	24.94	27.86	25.00	24.44	23.55	21.60	21.09
3.	Manufacturing	19.99	21.73	19.41	18.60	14.42	17.64	17.54	17.33	16.85
4.	Electricity, gas, water supply & other utility services	1.60	1.73	1.78	1.62	2.08	0.87	1.13	1.51	1.49
5.	Construction	9.54	8.33	9.01	8.01	8.35	8.01	7.62	7.67	7.32
	Secondary	31.13	31.80	30.20	28.24	24.85	26.52	26.29	26.51	25.67
6.	Trade, repair, hotels and restaurants	7.63	7.92	8.46	8.25	9.76	10.13	10.03	10.38	10.77
6.1	Trade & repair services	7.06	7.28	7.84	7.59	9.02	9.44	9.40	9.76	10.14
6.2	Hotels & restaurants	0.57	0.63	0.62	0.66	0.74	0.69	0.63	0.63	0.63
7.	Transport, storage, communication & services related to broadcasting	6.47	6.58	7.03	6.86	7.87	7.40	6.52	6.35	6.29
7.1	Railways	1.97	2.07	2.14	2.23	2.40	2.24	1.95	1.84	1.81

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.2	Road transport	3.04	3.04	3.22	2.97	3.37	3.23	2.90	2.87	2.82
7.3	Water transport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.04	0.04
7.5	Services incidental to transport	0.15	0.15	0.15	0.12	0.13	0.17	0.15	0.12	0.12
7.6	Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.30	1.30	1.50	1.51	1.93	1.72	1.47	1.48	1.50
8.	Financial services	2.75	2.65	2.70	2.57	3.18	2.74	2.62	2.59	2.55
9.	Real estate, ownership of dwelling & professional services	7.30	7.38	7.69	7.33	8.37	8.14	7.77	8.01	8.06
10.	Public administration	6.51	5.31	4.93	5.32	5.48	5.01	6.79	6.74	6.72
11.	Other services	4.88	5.07	5.54	5.46	5.95	5.54	4.17	4.39	4.29
	Tertiary	35.53	34.90	36.35	35.79	40.60	38.96	37.91	38.46	38.68
12.	TOTAL GSVA at basic prices	92.19	92.05	91.50	91.89	90.45	89.92	87.75	86.57	85.43
13.	Taxes on Products	10.02	10.43	10.57	9.83	11.25	12.36	11.25	12.30	12.57
14.	Subsidies on products	2.20	2.47	2.06	1.71	1.70	2.01	1.32	2.24	2.23
15.	Gross State Domestic Product	100	100	100	100	100	100	98	97	96

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 4: Gross State Domestic Product (GSDP) of Jharkhand at constant prices (2011-12)**  
(Rs. in Lakh)

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
1.	Agriculture, forestry and fishing	2233546	2364954	2321295	3033187	2171688	2680275	2739386	2581264	2644841
1.1	Crops	1342099	1498008	1430467	1507393	1133574	1459455	1564348	1319225	1315989
1.2	Livestock	477585	445735	461145	475099	493545	528070	515550	622102	646046
1.3	Forestry and logging	357560	361880	365303	985328	473347	603615	542792	511910	538837
1.4	Fishing and aquaculture	56302	59331	64380	65367	71222	89135	116696	128027	143969
2.	Mining and quarrying	1620374	1730483	1720631	2017893	1965121	1685398	1695332	1835381	1868342
	Primary	3853920	4095437	4041926	5051080	4136809	4365673	4434718	4416645	4513183
3.	Manufacturing	3016583	3614824	3356361	3672018	2726440	3656754	4168279	4463996	4721058
4.	Electricity, gas, water supply & other utility services	241235	286345	291006	271008	310277	143062	206112	306956	317705
5.	Construction	1439526	1344315	1484303	1490431	1514673	1599270	1691133	1790445	1847122
	Secondary	4697344	5245484	5131670	5433457	4551390	5399086	6065524	6561397	6885884
	Industry	6317718	6975967	6852301	7451350	6516511	7084484	7760856	8396778	8754226
6.	Trade, repair, hotels and restaurants	1152143	1287305	1400566	1549332	1777188	2017464	2275871	2528179	2829295
6.1	Trade & repair services	1065983	1184361	1298228	1425181	1642775	1880039	2132382	2375654	2663803
6.2	Hotels & restaurants	86160	102944	102338	124151	134413	137425	143489	152525	165491
7.	Transport, storage, communication & services related to broadcasting	975954	1076288	1180454	1291439	1396633	1402308	1440768	1510772	1610330
7.1	Railways	297906	345399	374927	421794	422310	381980	407200	420391	441592
7.2	Road transport	458247	490939	535722	558749	604233	642934	658721	698355	741679
7.3	Water transport	0	0	0	0	0	0	0	0	0

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
7.4	Air transport	1373	1285	2256	3368	5830	7346	11005	9418	12400
7.5	Services incidental to transport	22315	25425	18495	22854	22875	33928	34102	32009	33702
7.6	Storage	384	369	332	259	261	276	153	335	329
7.7	Communication & services related to broadcasting	195729	212871	248722	284415	341124	335844	329587	350264	380628
8.	Financial services	414386	453306	466489	493239	608198	599813	626257	639650	680575
9.	Real estate, ownership of dwelling & professional services	1101151	1189599	1249340	1407205	1511273	1642899	1747354	1896577	2049757
10.	Public administration	981782	859075	801042	936901	846406	876171	1342095	1431896	1511211
11.	Other services	736279	824103	900892	963043	946223	958619	813785	906752	934134
	Tertiary	5361695	5689676	5998783	6641159	7085921	7497274	8246130	8913826	9615303
12.	TOTAL GSVA at basic prices	13912959	15030597	15172379	17125696	15774120	17262033	18746372	19891868	21014370
13.	Taxes on Products	1511500	1697187	1751335	1850523	2018140	2455063	2620112	3188810	3635259
14.	Subsidies on products	332700	402757	342088	322780	304145	399704	308078	582046	646022
15.	Gross State Domestic Product	15091759	16325027	16581626	18653439	17488115	19317392	21058406	22498632	24003607
16.	Population ('00)	333020	338480	344020	349660	355380	361210	366460	371800	377150
17.	Per Capita GSDP (Rs.)	45318	48230	48200	53347	49210	53480	57464	60513	63645

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.



**Appendix 5: Growth (YoY) in Gross State Domestic Product (GSDP) of Jharkhand at constant prices (2011-12)**

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	5.88	-1.85	30.67	-28.40	23.42	2.21	-5.77	2.46
1.1	Crops	11.62	-4.51	5.38	-24.80	28.75	7.19	-15.67	-0.25
1.2	Livestock	-6.67	3.46	3.03	3.88	7.00	-2.37	20.67	3.85
1.3	Forestry and logging	1.21	0.95	169.73	-51.96	27.52	-10.08	-5.69	5.26
1.4	Fishing and aquaculture	5.38	8.51	1.53	8.96	25.15	30.92	9.71	12.45
2.	Mining and quarrying	6.80	-0.57	17.28	-2.62	-14.23	0.59	8.26	1.80
	Primary	6.27	-1.31	24.97	-18.10	5.53	1.58	-0.41	2.19
3.	Manufacturing	19.83	-7.15	9.40	-25.75	34.12	13.99	7.09	5.76
4.	Electricity, gas, water supply & other utility services	18.70	1.63	-6.87	14.49	-53.89	44.07	48.93	3.50
5.	Construction	-6.61	10.41	0.41	1.63	5.59	5.74	5.87	3.17
	Secondary	11.67	-2.17	5.88	-16.23	18.62	12.34	8.18	4.95
	Industry	10.42	-1.77	8.74	-12.55	8.72	9.55	8.19	4.26
6.	Trade, repair, hotels and restaurants	11.73	8.80	10.62	14.71	13.52	12.81	11.09	11.91
6.1	Trade & repair services	11.11	9.61	9.78	15.27	14.44	13.42	11.41	12.13
6.2	Hotels & restaurants	19.48	-0.59	21.31	8.27	2.24	4.41	6.30	8.50
7.	Transport, storage, communication & services related to broadcasting	10.28	9.68	9.40	8.15	0.41	2.74	4.86	6.59
7.1	Railways	15.94	8.55	12.50	0.12	-9.55	6.60	3.24	5.04
7.2	Road transport	7.13	9.12	4.30	8.14	6.40	2.46	6.02	6.20
7.3	Water transport								
7.4	Air transport	-6.41	75.56	49.29	73.10	26.00	49.81	-14.42	31.66
7.5	Services incidental to transport	13.94	-27.26	23.57	0.09	48.32	0.51	-6.14	5.29
7.6	Storage	-3.91	-10.03	-21.99	0.77	5.75	-44.57	118.95	-1.93

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.7	Communication & services related to broadcasting	8.76	16.84	14.35	19.94	-1.55	-1.86	6.27	8.67
8.	Financial services	9.39	2.91	5.73	23.31	-1.38	4.41	2.14	6.40
9.	Real estate, ownership of dwelling & professional services	8.03	5.02	12.64	7.40	8.71	6.36	8.54	8.08
10.	Public administration	-12.50	-6.76	16.96	-9.66	3.52	53.18	6.69	5.54
11.	Other services	11.93	9.32	6.90	-1.75	1.31	-15.11	11.42	3.02
	Tertiary	6.12	5.43	10.71	6.70	5.81	9.99	8.10	7.87
12.	TOTAL GSVA at basic prices	8.03	0.94	12.87	-7.89	9.43	8.60	6.11	5.64
13.	Taxes on Products	12.28	3.19	5.66	9.06	21.65	6.72	21.71	14.00
14.	Subsidies on products	21.06	-15.06	-5.64	-5.77	31.42	-22.92	88.93	10.99
15.	Gross State Domestic Product	8.17	1.57	12.49	-6.25	10.46	9.01	6.84	6.69
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.45	1.46	1.44
17.	Per Capita GSDP (Rs.)	6.43	-0.06	10.68	-7.76	8.68	7.45	5.30	5.18

**Appendix 6: Contribution of Sector Gross State Domestic Product (GSDP) of Jharkhand at constant prices (2011-12)**

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	16.05	15.73	15.30	17.71	13.77	15.53	14.61	12.98	12.6
1.1	Crops	9.65	9.97	9.43	8.80	7.19	8.45	8.34	6.63	6.3
1.2	Livestock	3.43	2.97	3.04	2.77	3.13	3.06	2.75	3.13	3.1
1.3	Forestry and logging	2.57	2.41	2.41	5.75	3.00	3.50	2.90	2.57	2.6
1.4	Fishing and aquaculture	0.40	0.39	0.42	0.38	0.45	0.52	0.62	0.64	0.7
2.	Mining and quarrying	11.65	11.51	11.34	11.78	12.46	9.76	9.04	9.23	8.9
	Primary	27.70	27.25	26.64	29.49	26.23	25.29	23.66	22.20	21.5
3.	Manufacturing	21.68	24.05	22.12	21.44	17.28	21.18	22.24	22.44	22.5
4.	Electricity, gas, water supply & other utility services	1.73	1.91	1.92	1.58	1.97	0.83	1.10	1.54	1.5
5.	Construction	10.35	8.94	9.78	8.70	9.60	9.26	9.02	9.00	8.8
	Secondary	33.76	34.90	33.82	31.73	28.85	31.28	32.36	32.99	32.8
	Industry	45.41	46.41	45.16	43.51	41.31	41.04	41.40	42.21	41.7
6.	Trade, repair, hotels and restaurants	45.41	46.41	45.16	43.51	41.31	41.04	41.40	42.21	41.7
6.1	Trade & repair services	8.28	8.56	9.23	9.05	11.27	11.69	12.14	12.71	13.5
6.2	Hotels & restaurants	7.66	7.88	8.56	8.32	10.41	10.89	11.37	11.94	12.7
7.	Transport, storage, communication & services related to broadcasting	0.62	0.68	0.67	0.72	0.85	0.80	0.77	0.77	0.8
7.1	Railways	7.01	7.16	7.78	7.54	8.85	8.12	7.69	7.59	7.7
7.2	Road transport	2.14	2.30	2.47	2.46	2.68	2.21	2.17	2.11	2.1

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.3	Water transport									
7.4	Air transport	3.29	3.27	3.53	3.26	3.83	3.72	3.51	3.51	3.5
7.5	Services incidental to transport	0.01	0.01	0.01	0.02	0.04	0.04	0.06	0.05	0.1
7.6	Storage	0.16	0.17	0.12	0.13	0.15	0.20	0.18	0.16	0.2
7.7	Communication & services related to broadcasting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
8.	Financial services	1.41	1.42	1.64	1.66	2.16	1.95	1.76	1.76	1.8
9.	Real estate, ownership of dwelling & professional services	2.98	3.02	3.07	2.88	3.86	3.47	3.34	3.22	3.2
10.	Public administration	7.91	7.91	8.23	8.22	9.58	9.52	9.32	9.53	9.8
11.	Other services	7.06	5.72	5.28	5.47	5.37	5.08	7.16	7.20	7.2
	Tertiary	5.29	5.48	5.94	5.62	6.00	5.55	4.34	4.56	4.4
12.	TOTAL GVA at basic prices	38.54	37.85	39.54	38.78	44.92	43.43	43.99	44.81	45.8
13.	Taxes on Products	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.0
14.	Subsidies on products	10.86	11.29	11.54	10.81	12.79	14.22	13.98	16.03	17.30
15.	Gross State Domestic Product	2.39	2.68	2.25	1.88	1.93	2.32	1.64	2.93	3.07

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 7: Net State Domestic Product (NSDP) of Jharkhand at current prices (2011-12)**  
(Rs. in Lakh)

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
1.	Agriculture, forestry and fishing	2100329	2395965	2664249	3808844	2930847	3795654	4329405	4283548	4769627
1.1	Crops	1227605	1479511	1656232	1903449	1484104	2074929	2361998	2058619	2216409
1.2	Livestock	469404	450789	483948	549966	617456	658392	928606	1186483	1354541
1.3	Forestry and logging	353636	395436	433972	1256739	712567	908145	822445	790771	887112
1.4	Fishing and aquaculture	49684	70229	90097	98690	116720	154188	216356	247675	311565
2.	Mining and quarrying	1424784	1651034	1591597	1759099	1688420	1453297	1616470	1753586	1806382
	Primary	3525113	4046999	4255846	5567943	4619267	5248951	5945875	6037134	6576009
3.	Manufacturing	2740497	3562247	3390423	3832136	2749502	3892196	4557337	5016912	5469552
4.	Electricity, gas, water supply & other utility services	160289	198000	222036	229621	289078	136650	216421	350466	391905
5.	Construction	1371583	1378972	1596103	1647815	1623297	1770612	1970944	2202590	2356791
	Secondary	4272369	5139219	5208562	5709572	4661877	5799458	6744702	7569968	8218248
6.	Trade, repair, hotels and restaurants	1098375	1314047	1514561	1703297	1924352	2280058	2617779	3014370	3484480
6.1	Trade & repair services	1016218	1208962	1418108	1585491	1793030	2141529	2476672	2859291	3314668
6.2	Hotels & restaurants	82157	105085	96453	117806	131322	138529	141107	155079	169812
7.	Transport, storage, communication & services related to broadcasting	813647	966004	1080797	1222987	1325955	1397864	1379867	1448414	1574154
7.1	Railways	237638	293142	321544	384320	384032	403261	389513	393599	423019
7.2	Road transport	392312	456846	520538	559493	604998	648673	661863	709659	772367
7.3	Water transport	0	0	0	0	0			0	0
7.4	Air transport	1373	2448	1643	2616	5542	7323	10936	8634	11228

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
7.5	Services incidental to transport	22315	26547	23837	23438	23095	34893	34780	32144	33864
7.6	Storage	329	336	320	253	254	275	156	351	354
7.7	Communication & services related to broadcasting	159680	186685	212915	252867	308034	303439	282619	304027	333322
8.	Financial services	407843	454300	501096	551249	642815	631277	709072	779863	855532
9.	Real estate, ownership of dwelling & professional services	992301	1163065	1323500	1457842	1532901	1699016	1971889	2269243	2553881
10.	Public administration	757532	721118	726761	918200	906368	955005	1537665	1719685	1933361
11.	Other services	692367	835956	988477	1131712	1160570	1229572	1080969	1268373	1382947
	Tertiary	4762065	5454490	6135192	6985287	7492961	8192792	9297241	10499948	11784355
12.	TOTAL NSVA at basic prices	12559547	14640708	15599600	18262802	16774105	19241201	21987818	24107050	26578612
13.	Taxes on Products	1511500	1822100	1992669	2147532	2323997	2911948	3107749	3782289	4311827
14.	Subsidies on products	332700	432400	389228	374586	350239	474089	365416	690374	766257
15.	Net State Domestic Product	13738347	16030408	17203041	20035748	18747863	21679060	24730151	27198965	30124182
16.	Population ('00)	333020	338480	344020	349660	355380	361210	366460	371800	379250
17.	Per Capita NSDP (Rs.)	41254	47360	50006	57301	52754	60018	67484	73155	79431

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 8: Growth (YoY) in Net State Domestic Product of Jharkhand at current prices  
(2011-12)**

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	14.08	11.20	42.96	-23.05	29.51	14.06	-1.06	11.35
1.1	Crops	20.52	11.94	14.93	-22.03	39.81	13.84	-12.84	7.66
1.2	Livestock	-3.97	7.36	13.64	12.27	6.63	41.04	27.77	14.16
1.3	Forestry and logging	11.82	9.75	189.59	-43.30	27.45	-9.44	-3.85	12.18
1.4	Fishing and aquaculture	41.35	28.29	9.54	18.27	32.10	40.32	14.48	25.80
2.	Mining and quarrying	15.88	-3.60	10.52	-4.02	-13.93	11.23	8.48	3.01
	Primary	14.80	5.16	30.83	-17.04	13.63	13.28	1.53	8.93
3.	Manufacturing	29.99	-4.82	13.03	-28.25	41.56	17.09	10.08	9.02
4.	Electricity, gas, water supply & other utility services	23.53	12.14	3.42	25.89	-52.73	58.38	61.94	11.82
5.	Construction	0.54	15.75	3.24	-1.49	9.08	11.31	11.75	7.00
	Secondary	20.29	1.35	9.62	-18.35	24.40	16.30	12.24	8.56
6.	Trade, repair, hotels and restaurants	19.64	15.26	12.46	12.98	18.48	14.81	15.15	15.60
6.1	Trade & repair services	18.97	17.30	11.80	13.09	19.44	15.65	15.45	15.93
6.2	Hotels & restaurants	27.91	-8.21	22.14	11.47	5.49	1.86	9.90	9.50
7.	Transport, storage, communication & services related to broadcasting	18.73	11.88	13.16	8.42	5.42	-1.29	4.97	8.68
7.1	Railways	23.36	9.69	19.52	-0.07	5.01	-3.41	1.05	7.47
7.2	Road transport	16.45	13.94	7.48	8.13	7.22	2.03	7.22	8.84
7.3	Water transport								
7.4	Air transport	78.30	-32.88	59.22	111.85	32.14	49.34	-21.05	30.04

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.5	Services incidental to transport	18.96	-10.21	-1.67	-1.46	51.08	-0.32	-7.58	5.35
7.6	Storage	2.13	-4.76	-20.94	0.40	8.27	-43.27	125.00	0.93
7.7	Communication & services related to broadcasting	16.91	14.05	18.76	21.82	-1.49	-6.86	7.57	9.64
8.	Financial services	11.39	10.30	10.01	16.61	-1.79	12.32	9.98	9.70
9.	Real estate, ownership of dwelling & professional services	17.21	13.79	10.15	5.15	10.84	16.06	15.08	12.54
10.	Public administration	-4.81	0.78	26.34	-1.29	5.37	61.01	11.84	12.43
11.	Other services	20.74	18.25	14.49	2.55	5.95	-12.09	17.34	9.03
	Tertiary	14.54	12.48	13.86	7.27	9.34	13.48	12.94	12.23
12.	TOTAL NSVA at basic prices	16.57	6.55	17.07	-8.15	14.71	14.27	9.64	10.25
13.	Taxes on Products	20.55	9.36	7.77	8.22	25.30	6.72	21.71	14.00
14.	Subsidies on products	29.97	-9.98	-3.76	-6.50	35.36	-22.92	88.93	10.99
15.	Net State Domestic Product	16.68	7.32	16.47	-6.43	15.63	14.07	9.98	10.75
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.45	1.46	2.00
17.	Per Capita NSDP (Rs.)	14.80	5.59	14.59	-7.93	13.77	12.44	8.40	8.58

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.



**Appendix 9: Contribution of Sector Net State Domestic Product (NSDP) of Jharkhand at current prices (2011-12)**

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	15.29	14.95	15.49	19.01	15.63	17.51	17.03	15.10	15.05
1.1	Crops	8.94	9.23	9.63	9.50	7.92	9.57	9.29	7.26	6.99
1.2	Livestock	3.42	2.81	2.81	2.74	3.29	3.04	3.65	4.18	4.27
1.3	Forestry and logging	2.57	2.47	2.52	6.27	3.80	4.19	3.23	2.79	2.80
1.4	Fishing and aquaculture	0.36	0.44	0.52	0.49	0.62	0.71	0.85	0.87	0.98
2.	Mining and quarrying	10.37	10.30	9.25	8.78	9.01	6.70	6.36	6.18	5.70
	Primary	25.66	25.25	24.74	27.79	24.64	24.21	23.38	21.28	20.74
3.	Manufacturing	19.95	22.22	19.71	19.13	14.67	17.95	17.92	17.69	17.25
4.	Electricity, gas, water supply & other utility services	1.17	1.24	1.29	1.15	1.54	0.63	0.85	1.24	1.24
5.	Construction	9.98	8.60	9.28	8.22	8.66	8.17	7.75	7.76	7.43
	Secondary	31.10	32.06	30.28	28.50	24.87	26.75	26.52	26.69	25.92
6.	Trade, repair, hotels and restaurants	7.99	8.20	8.80	8.50	10.26	10.52	10.29	10.63	10.99
6.1	Trade & repair services	7.40	7.54	8.24	7.91	9.56	9.88	9.74	10.08	10.46
6.2	Hotels & restaurants	0.60	0.66	0.56	0.59	0.70	0.64	0.55	0.55	0.54
7.	Transport, storage, communication & services related to broadcasting	5.92	6.03	6.28	6.10	7.07	6.45	5.43	5.11	4.97
7.1	Railways	1.73	1.83	1.87	1.92	2.05	1.86	1.53	1.39	1.33
7.2	Road transport	2.86	2.85	3.03	2.79	3.23	2.99	2.60	2.50	2.44
7.3	Water transport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.4	Air transport	0.01	0.02	0.01	0.01	0.03	0.03	0.04	0.03	0.04
7.5	Services incidental to transport	0.16	0.17	0.14	0.12	0.12	0.16	0.14	0.11	0.11
7.6	Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.16	1.16	1.24	1.26	1.64	1.40	1.11	1.07	1.05
8.	Financial services	2.97	2.83	2.91	2.75	3.43	2.91	2.79	2.75	2.70
9.	Real estate, ownership of dwelling & professional services	7.22	7.26	7.69	7.28	8.18	7.84	7.75	8.00	8.06
10.	Public administration	5.51	4.50	4.22	4.58	4.83	4.41	6.05	6.06	6.10
11.	Other services	5.04	5.21	5.75	5.65	6.19	5.67	4.25	4.47	4.36
	Tertiary	34.66	34.03	35.66	34.86	39.97	37.79	36.56	37.02	37.17
12.	TOTAL GSVA at basic prices	91.42	91.33	90.68	91.15	89.47	88.75	86.47	84.99	83.84
13.	Taxes on Products	11.00	11.37	11.58	10.72	12.40	13.43	12.22	13.33	13.60
14.	Subsidies on products	2.42	2.70	2.26	1.87	1.87	2.19	1.44	2.43	2.42
15.	Gross State Domestic Product	100	100	100	100	100	100	97	96	95

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 10: Net State Domestic Product (NSDP) of Jharkhand at constant prices (2011-12)**  
(Rs. in Lakh)

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
1.	Agriculture, forestry and fishing	2100329	2221943	2166800	2862595	2000791	2497845	2542362	2371507	2423515
1.1	Crops	1227605	1375517	1297247	1365336	987460	1304171	1399025	1143893	1132410
1.2	Livestock	469404	437744	452760	466378	484733	519298	505490	610693	634086
1.3	Forestry and logging	353636	357726	360916	974577	467405	597424	536347	505475	531940
1.4	Fishing and aquaculture	49684	50956	55877	56304	61193	76952	101500	111446	125079
2.	Mining and quarrying	1424784	1513376	1476089	1748278	1689309	1456978	1457574	1588875	1613811
	Primary	3525113	3735319	3642889	4610873	3690100	3954823	3999936	3960382	4037326
3.	Manufacturing	2740497	3388295	3103621	3462673	2520129	3421197	3915907	4197798	4461466
4.	Electricity, gas, water supply & other utility services	160289	185362	184541	159316	184676	81684	122625	210327	218651
5.	Construction	1371583	1271097	1387201	1394971	1418993	1488897	1563035	1646383	1689899
	Secondary	4272369	4844754	4675363	5016960	4123798	4991778	5601567	6054508	6370015
6.	Trade, repair, hotels and restaurants	1098375	1222203	1326563	1462281	1695174	1922853	2145675	2383521	2664377
6.1	Trade & repair services	1016218	1124458	1242713	1361529	1579664	1806692	2030610	2261197	2534895
6.2	Hotels & restaurants	82157	97745	83850	100752	115510	116161	115065	122324	129481
7.	Transport, storage, communication & services related to broadcasting	813647	901861	951326	1045884	1132224	1100545	1079444	1090807	1138792
7.1	Railways	237638	280740	299653	332481	324557	274773	283352	282896	290030
7.2	Road transport	392312	420137	454700	474433	518463	540244	533160	546599	573120

S.No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	2019-20(Pr)
7.3	Water transport	0	0	0	0	0				0
7.4	Air transport	1373	1285	659	2153	4737	6102	9158	7245	9188
7.5	Services incidental to transport	22315	25425	14995	20070	19984	29353	29372	27320	28121
7.6	Storage	329	320	279	218	218	230	128	279	273
7.7	Communication & services related to broadcasting	159680	173954	181040	216529	264265	249843	224274	226468	238060
8.	Financial services	407843	445363	458389	484056	596548	587352	612920	624996	664295
9.	Real estate, ownership of dwelling & professional services	992301	1070974	1136212	1283995	1344142	1458926	1606722	1747858	1895088
10.	Public administration	757532	660874	612617	716753	641663	671507	1044197	1132015	1198875
11.	Other services	692367	776851	848327	908255	885468	893169	754488	841407	865171
	Tertiary	4762065	5078126	5333434	5901224	6295219	6634352	7243446	7820604	8426597
12.	TOTAL NSVA at basic prices	12559547	13658199	13651686	15529057	14109117	15580953	16844949	17835494	18833938
13.	Taxes on Products	1511500	1697187	1751335	1850523	2018140	2455063	2620112	3188810	3635259
14.	Subsidies on products	332700	402757	342088	322780	304145	399704	308078	582046	646022
15.	Net State Domestic Product	13738347	14952629	15060933	17056800	15823112	17636312	19156983	20442258	21823175
16.	Population ('00)	333020	338480	344020	349660	355380	361210	366460	371800	377150
17.	Per Capita NSDP (Rs.)	41254	44176	43779	48781	44524	48826	52276	54982	57863

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 11: Growth (YoY) in Net State Domestic Product (NSDP) of Jharkhand at constant prices (2011-12)**

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	5.79	-2.48	32.11	-30.11	24.84	1.78	-6.72	2.19
1.1	Crops	12.05	-5.69	5.25	-27.68	32.07	7.27	-18.24	-1.00
1.2	Livestock	-6.74	3.43	3.01	3.94	7.13	-2.66	20.81	3.83
1.3	Forestry and logging	1.16	0.89	170.03	-52.04	27.82	-10.22	-5.76	5.24
1.4	Fishing and aquaculture	2.56	9.66	0.76	8.68	25.75	31.90	9.80	12.23
2.	Mining and quarrying	6.22	-2.46	18.44	-3.37	-13.75	0.04	9.01	1.57
	Primary	5.96	-2.47	26.57	-19.97	7.17	1.14	-0.99	1.94
3.	Manufacturing	23.64	-8.40	11.57	-27.22	35.75	14.46	7.20	6.28
4.	Electricity, gas, water supply & other utility services	15.64	-0.44	-13.67	15.92	-55.77	50.12	71.52	3.96
5.	Construction	-7.33	9.13	0.56	1.72	4.93	4.98	5.33	2.64
	Secondary	13.40	-3.50	7.31	-17.80	21.05	12.22	8.09	5.21
6.	Trade, repair, hotels and restaurants	11.27	8.54	10.23	15.93	13.43	11.59	11.08	11.78
6.1	Trade & repair services	10.65	10.52	9.56	16.02	14.37	12.39	11.36	12.10
6.2	Hotels & restaurants	18.97	-14.22	20.16	14.65	0.56	-0.94	6.31	5.85
7.	Transport, storage, communication & services related to broadcasting	10.84	5.48	9.94	8.26	-2.80	-1.92	1.05	4.40
7.1	Railways	18.14	6.74	10.96	-2.38	-15.34	3.12	-0.16	2.52
7.2	Road transport	7.09	8.23	4.34	9.28	4.20	-1.31	2.52	4.85
7.3	Water transport								

S.No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.4	Air transport	-6.41	-48.72	226.71	120.02	28.82	50.08	-20.89	26.82
7.5	Services incidental to transport	13.94	-41.02	33.84	-0.43	46.88	0.06	-6.99	2.93
7.6	Storage	-2.74	-12.81	-21.86	0.00	5.50	-44.35	117.97	-2.33
7.7	Communication & services related to broadcasting	8.94	4.07	19.60	22.05	-5.46	-10.23	0.98	5.12
8.	Financial services	9.20	2.92	5.60	23.24	-1.54	4.35	1.97	6.29
9.	Real estate, ownership of dwelling & professional services	7.93	6.09	13.01	4.68	8.54	10.13	8.78	8.42
10.	Public administration	-12.76	-7.30	17.00	-10.48	4.65	55.50	8.41	5.91
11.	Other services	12.20	9.20	7.06	-2.51	0.87	-15.53	11.52	2.82
	Tertiary	6.64	5.03	10.65	6.68	5.39	9.18	7.97	7.75
12.	TOTAL NSVA at basic prices	8.75	-0.05	13.75	-9.14	10.43	8.11	5.88	5.60
13.	Taxes on Products	12.28	3.19	5.66	9.06	21.65	6.72	21.71	14.00
14.	Subsidies on products	21.06	-15.06	-5.64	-5.77	31.42	-22.92	88.93	10.99
15.	Net State Domestic Product	8.84	0.72	13.25	-7.23	11.46	8.62	6.71	6.76
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.45	1.46	1.44
17.	Per Capita NSDP (Rs.)	7.08	-0.90	11.43	-8.73	9.66	7.07	5.18	5.24

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.

**Appendix 12: Contribution of Sector Net State Domestic Product (NSDP) of Jharkhand at constant prices (2011-12)**

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
1.	Agriculture, forestry and fishing	15.29	14.86	14.39	16.78	12.64	14.16	12.77	11.12	10.59
1.1	Crops	8.94	9.20	8.61	8.00	6.24	7.39	7.03	5.36	4.95
1.2	Livestock	3.42	2.93	3.01	2.73	3.06	2.94	2.54	2.86	2.77
1.3	Forestry and logging	2.57	2.39	2.40	5.71	2.95	3.39	2.69	2.37	2.32
1.4	Fishing and aquaculture	0.36	0.34	0.37	0.33	0.39	0.44	0.51	0.52	0.55
2.	Mining and quarrying	10.37	10.12	9.80	10.25	10.68	8.26	7.32	7.45	7.05
	Primary	25.66	24.98	24.19	27.03	23.32	22.42	20.09	18.57	17.64
3.	Manufacturing	19.95	22.66	20.61	20.30	15.93	19.40	19.66	19.68	19.50
4.	Electricity, gas, water supply & other utility services	1.17	1.24	1.23	0.93	1.17	0.46	0.62	0.99	0.96
5.	Construction	9.98	8.50	9.21	8.18	8.97	8.44	7.85	7.72	7.38
	Secondary	31.10	32.40	31.04	29.41	26.06	28.30	28.13	28.39	27.84
6.	Trade, repair, hotels and restaurants	7.99	8.17	8.81	8.57	10.71	10.90	10.77	11.18	11.64
6.1	Trade & repair services	7.40	7.52	8.25	7.98	9.98	10.24	10.20	10.60	11.08
6.2	Hotels & restaurants	0.60	0.65	0.56	0.59	0.73	0.66	0.58	0.57	0.57
7.	Transport, storage, communication & services related to broadcasting	5.92	6.03	6.32	6.13	7.16	6.24	5.42	5.11	4.98
7.1	Railways	1.73	1.88	1.99	1.95	2.05	1.56	1.42	1.33	1.27

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19(Pr)	2019-20(Pr)
7.2	Road transport	2.86	2.81	3.02	2.78	3.28	3.06	2.68	2.56	2.50
7.3	Water transport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	0.01	0.01	0.004	0.01	0.03	0.03	0.05	0.03	0.04
7.5	Services incidental to transport	0.16	0.17	0.10	0.12	0.13	0.17	0.15	0.13	0.12
7.6	Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.16	1.16	1.20	1.27	1.67	1.42	1.13	1.06	1.04
8.	Financial services	2.97	2.98	3.04	2.84	3.77	3.33	3.08	2.93	2.90
9.	Real estate, ownership of dwelling & professional services	7.22	7.16	7.54	7.53	8.49	8.27	8.07	8.20	8.28
10.	Public administration	5.51	4.42	4.07	4.20	4.06	3.81	5.24	5.31	5.24
11.	Other services	5.04	5.20	5.63	5.32	5.60	5.06	3.79	3.95	3.78
	Tertiary	34.66	33.96	35.41	34.60	39.78	37.62	36.37	36.67	36.82
12.	TOTAL GSVA at basic prices	91.42	91.34	90.64	91.04	89.17	88.35	84.59	83.63	82.30
13.	Taxes on Products	11.00	11.35	11.63	10.85	12.75	13.92	13.16	14.95	15.89
14.	Subsidies on products	2.42	2.69	2.27	1.89	1.92	2.27	1.55	2.73	2.82
15.	Gross State Domestic Product	100	100	100	100	100	100	96	96	95

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, (Projections by Centre for fiscal studies, Govt. of Jharkhand)

Note- P=Provisional, Pr=Projected.



**Appendix 13: State Wise Gross Domestic Product (GSDP) at Current Prices (2011-12)**

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	379402	411404	464272	524976	604229	684416	793186	862957	972782
2	Arunachal Pradesh	11063	12547	14581	17959	18509	19845	22432	24603	NA
3	Assam	143175	156864	177745	195723	227959	254382	283165	315881	NA
4	Bihar	247144	282368	317101	342951	371602	421051	468746	530363	611804
5	Chhattisgarh	158074	177511	206833	221118	225163	250882	274042	304063	329180
6	Goa	42367	38120	35921	47814	55054	62976	69352	73170	80449
7	Gujarat	615606	724495	807623	921773	1029010	1167156	1329095	1502899	NA
8	Haryana	297539	347032	399268	437145	495504	561610	649592	734163	831610
9	Himachal Pradesh	72720	82820	94764	103772	114239	125634	138351	153845	165472
10	Jammu & Kashmir*	78256	87138	95619	98367	117168	124848	139240	155956	NA
11	Jharkhand	150918	174724	188567	218525	206613	236250	269816	297204	328598
12	Karnataka	606010	695413	816666	913923	1045168	1207609	1336917	1493127	1631977
13	Kerala	364048	412313	465041	512564	561994	634886	701577	781653	NA
14	Madhya Pradesh	315562	380925	439483	479939	541068	649823	724729	809592	906672
15	Maharashtra	1280369	1459629	1649647	1779138	1966225	2198324	2382570	2632792	NA
16	Manipur	12915	13743	16182	18129	19531	21294	25789	27870	31790
17	Meghalaya	19918	21872	22938	23235	25117	27439	29508	33481	36572

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
18	Mizoram	7259	8362	10293	13509	15139	17192	19385	22287	26503
19	Nagaland	12177	14121	16612	18401	19524	21722	24492	27283	NA
20	Odisha	230987	261700	296475	314250	328550	392804	440879	487805	521275
21	Punjab	266628	297734	332147	355102	390087	426988	470834	526376	574760
22	Rajasthan	434837	493551	551031	615642	681482	760750	835170	942586	1020989
23	Sikkim	11165	12338	13862	15407	18034	20687	25971	28723	32496
24	Tamil Nadu	751486	854825	968530	1072678	1176500	1302639	1465051	1630208	1845853
25	Telangana	359434	401594	451580	505849	577902	658325	753127	861031	969604
26	Tripura	19208	21663	25593	29533	35938	39479	43716	49845	55984
27	Uttar Pradesh	724050	822393	940356	1011790	1137808	1288700	1416006	1584764	1687818
28	Uttarakhand	115328	131613	149074	161439	177163	195125	222836	245895	NA
29	West Bengal	520485	591464	676848	718082	797300	872527	974700	1089898	1253832
30	Andaman & Nicobar Islands	3978	4421	5023	5477	6032	6836	7871	NA	NA
31	Chandigarh	18768	21609	24822	26549	29275	32427	36870	42114	NA
32	Delhi	343798	391388	443960	494803	550804	616085	686824	774870	856112
33	Puducherry	16818	18875	21870	22574	26617	29573	32129	34433	38253
Source: Directorate of Economics & Statistics of respective State Governments										

**Appendix 14 State Wise Growth in Gross State Domestic Product (GSDP) at Current Prices  
(2011-12)**

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	8.43	12.85	13.08	15.10	13.27	15.89	8.80	12.73
2	Arunachal Pradesh	13.41	16.22	23.17	3.06	7.22	13.04	9.68	NA
3	Assam	9.56	13.31	10.11	16.47	11.59	11.31	11.55	NA
4	Bihar	14.25	12.30	8.15	8.35	13.31	11.33	13.15	15.36
5	Chhattisgarh	12.30	16.52	6.91	1.83	11.42	9.23	10.95	8.26
6	Goa	-10.02	-5.77	33.11	15.14	14.39	10.12	5.51	9.95
7	Gujarat	17.69	11.47	14.13	11.63	13.43	13.87	13.08	NA
8	Haryana	16.63	15.05	9.49	13.35	13.34	15.67	13.02	13.27
9	Himachal Pradesh	13.89	14.42	9.51	10.09	9.97	10.12	11.20	7.56
10	Jammu & Kashmir*	11.35	9.73	2.87	19.11	6.55	11.53	12.01	NA
11	Jharkhand	15.77	7.92	15.89	-5.45	14.34	14.21	10.15	10.56
12	Karnataka	14.75	17.44	11.91	14.36	15.54	10.71	11.68	9.30
13	Kerala	13.26	12.79	10.22	9.64	12.97	10.50	11.41	NA
14	Madhya Pradesh	20.71	15.37	9.21	12.74	20.10	11.53	11.71	11.99
15	Maharashtra	14.00	13.02	7.85	10.52	11.80	8.38	10.50	NA
16	Manipur	6.42	17.75	12.03	7.73	9.03	21.11	8.07	14.07
17	Meghalaya	9.81	4.87	1.29	8.10	9.24	7.54	13.46	9.23
18	Mizoram	15.20	23.10	31.24	12.06	13.56	12.76	14.97	18.91

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
19	Nagaland	15.97	17.64	10.77	6.10	11.26	12.75	11.40	NA
20	Odisha	13.30	13.29	6.00	4.55	19.56	12.24	10.64	6.86
21	Punjab	11.67	11.56	6.91	9.85	9.46	10.27	11.80	9.19
22	Rajasthan	13.50	11.65	11.73	10.69	11.63	9.78	12.86	8.32
23	Sikkim	10.51	12.35	11.14	17.05	14.71	25.54	10.60	13.13
24	Tamil Nadu	13.75	13.30	10.75	9.68	10.72	12.47	11.27	13.23
25	Telangana	11.73	12.45	12.02	14.24	13.92	14.40	14.33	12.61
26	Tripura	12.78	18.14	15.40	21.68	9.86	10.73	14.02	12.32
27	Uttar Pradesh	13.58	14.34	7.60	12.45	13.26	9.88	11.92	6.50
28	Uttarakhand	14.12	13.27	8.29	9.74	10.14	14.20	10.35	NA
29	West Bengal	13.64	14.44	6.09	11.03	9.44	11.71	11.82	15.04
30	Andaman & Nicobar Islands	11.13	13.60	9.05	10.12	13.33	15.14	NA	NA
31	Chandigarh	15.13	14.87	6.96	10.27	10.77	13.70	14.22	NA
32	Delhi	13.84	13.43	11.45	11.32	11.85	11.48	12.82	10.48
33	Puducherry	12.23	15.87	3.22	17.91	11.11	8.64	7.17	11.09
Source: Directorate of Economics & Statistics of respective State Governments									

**Appendix 15: State Wise Gross State Domestic Product (GSDP) at Constant Prices (2011-12)  
(Figures Rs. in Crore)**

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	379402	380629	407115	444564	498606	540212	594841	621301	672018
2	Arunachal Pradesh	11063	11299	12338	14383	14240	14746	15944	16676	NA
3	Assam	143175	147342	154525	165212	191109	202081	219919	234048	NA
4	Bihar	247144	256851	269650	279482	296488	322951	343789	375651	414977
5	Chhattisgarh	158074	165977	182579	185813	190810	205975	215927	231182	243477
6	Goa	42367	35850	31568	40116	46091	51249	54637	62539	NA
7	Gujarat	615606	682650	734284	811428	894465	981342	1086570	1186379	NA
8	Haryana	297539	320912	347507	370535	413405	456659	494068	531085	572240
9	Himachal Pradesh	72720	77384	82847	89060	96274	103055	110034	117851	124403
10	Jammu & Kashmir	78256	80767	85115	82372	97001	100199	106293	112755	NA
11	Jharkhand	150918	163250	165816	186534	174881	193174	210587	224986	240036
12	Karnataka	606010	643033	704466	748429	831330	942221	1043533	1124423	1201031
13	Kerala	364048	387693	402781	419956	451210	485302	520579	559412	NA
14	Madhya Pradesh	315562	351683	365134	383944	418736	470669	493516	522009	561801
15	Maharashtra	1280369	1357942	1451615	1543165	1654284	1807102	1923797	2039074	NA
16	Manipur	12915	12993	14115	15245	16424	17082	18751	19300	NA
17	Meghalaya	19918	20354	20726	20140	20638	21730	22564	24682	26695
18	Mizoram	7259	7778	9038	11261	12324	13595	14251	14524	NA

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
19	Nagaland	12177	12868	13793	14399	14660	15650	16485	17647	NA
20	Odisha	230987	243363	265892	270665	292229	337218	360810	382218	402383
21	Punjab	266628	280823	299450	312125	330052	352721	375238	397669	418868
22	Rajasthan	434837	454564	486230	521509	563340	597267	633278	677428	711627
23	Sikkim	11165	11421	12114	13071	14370	15397	17673	18722	20017
24	Tamil Nadu	751486	791824	851976	893915	967562	1036762	1125793	1215307	1312929
25	Telangana	359434	370113	389957	416332	464542	507946	559492	612828	663258
26	Tripura	19208	20873	22819	26965	26787	30538	33619	36963	40527
27	Uttar Pradesh	724050	758205	802070	834432	908241	1007010	1079879	1137469	1187277
28	Uttarakhand	115328	123710	134182	141278	152699	167703	180844	193273	NA
29	West Bengal	520485	542191	558497	574364	609545	653416	694980	739525	793223
30	Andaman & Nicobar Islands	3978	4156	4488	4742	5092	5752	6482	NA	NA
31	Chandigarh	18768	20285	22105	22870	24932	26917	29046	31192	NA
32	Delhi	343798	366628	392908	428355	475623	511765	548304	590569	634408
33	Puducherry	16818	17310	19170	18207	19060	20478	22489	24442	26526

Note: As on 31.07.2020

Source: Directorate of Economics & Statistics of respective State Governments

**Appendix 16: State Wise Growth in Gross State Domestic Product (GSDP) at Constant Prices (2011-12)**

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Andhra Pradesh	0.32	6.96	9.20	12.16	8.34	10.11	4.45	8.16
2	Arunachal Pradesh	2.14	9.20	16.57	-0.99	3.55	8.12	4.59	NA
3	Assam	2.91	4.88	6.92	15.67	5.74	8.83	6.42	NA
4	Bihar	3.93	4.98	3.65	6.08	8.93	6.45	9.27	10.47
5	Chhattisgarh	5.00	10.00	1.77	2.69	7.95	4.83	7.06	5.32
6	Goa	-15.38	-11.94	27.08	14.89	11.19	6.61	14.46	NA
7	Gujarat	10.89	7.56	10.51	10.23	9.71	10.72	9.19	NA
8	Haryana	7.86	8.29	6.63	11.57	10.46	8.19	7.49	7.75
9	Himachal Pradesh	6.41	7.06	7.50	8.10	7.04	6.77	7.10	5.56
10	Jammu & Kashmir	3.21	5.38	-3.22	17.76	3.30	6.08	6.08	NA
11	Jharkhand	8.17	1.57	12.49	-6.25	10.46	9.01	6.84	6.69
12	Karnataka	6.11	9.55	6.24	11.08	13.34	10.75	7.75	6.81
13	Kerala	6.50	3.89	4.26	7.44	7.56	7.27	7.46	NA
14	Madhya Pradesh	11.45	3.82	5.15	9.06	12.40	4.85	5.77	7.62
15	Maharashtra	6.06	6.90	6.31	7.20	9.24	6.46	5.99	NA
16	Manipur	0.61	8.64	8.00	7.73	4.01	9.77	2.93	NA
17	Meghalaya	2.19	1.83	-2.82	2.47	5.29	3.84	9.38	8.16
18	Mizoram	7.15	16.21	24.59	9.44	10.32	4.82	1.92	NA

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
19	Nagaland	5.68	7.19	4.39	1.82	6.75	5.34	7.05	NA
20	Odisha	5.36	9.26	1.80	7.97	15.40	7.00	5.93	5.28
21	Punjab	5.32	6.63	4.23	5.74	6.87	6.38	5.98	5.33
22	Rajasthan	4.54	6.97	7.26	8.02	6.02	6.03	6.97	5.05
23	Sikkim	2.29	6.07	7.90	9.93	7.15	14.78	5.94	6.92
24	Tamil Nadu	5.37	7.60	4.92	8.24	7.15	8.59	7.95	8.03
25	Telangana	2.97	5.36	6.76	11.58	9.34	10.15	9.53	8.23
26	Tripura	8.67	9.32	18.17	-0.66	14.00	10.09	9.95	9.64
27	Uttar Pradesh	4.72	5.79	4.03	8.85	10.87	7.24	5.33	4.38
28	Uttarakhand	7.27	8.47	5.29	8.08	9.83	7.84	6.87	NA
29	West Bengal	4.17	3.01	2.84	6.13	7.20	6.36	6.41	7.26
30	Andaman & Nicobar Islands	4.48	7.99	5.64	7.39	12.96	12.70	NA	NA
31	Chandigarh	8.08	8.97	3.46	9.02	7.96	7.91	7.39	NA
32	Delhi	6.64	7.17	9.02	11.03	7.60	7.14	7.71	7.42
33	Puducherry	2.93	10.74	-5.03	4.69	7.44	9.82	8.68	8.52

Note: As on 31.07.2020

Source: Directorate of Economics & Statistics of respective State Governments



**Appendix 17: State Wise Net State Domestic Product (NSDP) at Current Prices (2011-12)**  
(Figure Rs. in Crore)

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	339996	370196	413164	470934	544827	612349	712939	776140	875429
2	Arunachal Pradesh	10229	11617	13377	16495	16986	18153	20558	22488	NA
3	Assam	129354	142039	160442	172849	201309	222397	253726	282782	NA
4	Bihar	228497	261327	292143	315732	340119	386879	431128	486776	562710
5	Chhattisgarh	142273	159431	186050	197314	200653	220457	240763	266537	288041
6	Goa	38009	34567	32043	43233	50354	57449	62873	66060	NA
7	Gujarat	532809	634572	707456	804764	893997	1016683	1166370	1322936	NA
8	Haryana	271152	314353	362196	392950	446059	507462	588274	666075	755790
9	Himachal Pradesh	60536	69432	80129	87345	96851	108359	119362	133303	143063
10	Jammu & Kashmir	67274	72996	79692	81037	98409	104575	116604	129877	NA
11	Jharkhand	137383	160304	172030	200357	187479	216791	247302	271990	301242
12	Karnataka	554952	635924	746569	825782	950866	1104165	1238412	1409126	1550297
13	Kerala	328021	371384	417265	460614	505910	570591	632727	707542	NA
14	Madhya Pradesh	282371	333937	393115	429027	486034	590669	658145	737156	827019
15	Maharashtra	1126595	1282180	1448720	1553217	1735308	1954913	2110823	2332992	NA
16	Manipur	11501	12188	14440	16275	17493	19132	23557	25322	NA
17	Meghalaya	18028	19653	20415	20697	22516	24641	26452	29544	32833

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
18	Mizoram	6404	7375	8989	12067	13595	15431	16736	17506	NA
19	Nagaland	10554	12318	14545	16104	17128	19174	21742	24534	NA
20	Odisha	204226	233312	260977	274923	283979	342236	387639	432455	467554
21	Punjab	239227	267116	297908	316745	350011	384197	422458	472506	517521
22	Rajasthan	395331	446382	494236	551517	610713	682788	748555	845247	916014
23	Sikkim	9742	10817	12203	13556	15743	18163	22835	25141	28391
24	Tamil Nadu	674478	768295	858870	957350	1057084	1171973	1317984	1465361	1659210
25	Telangana	325139	364030	408282	456280	522994	597812	683729	782370	881873
26	Tripura	17419	19631	23329	26643	32476	35668	39505	44835	49601
27	Uttar Pradesh	645132	732995	833825	891798	1009386	1147209	1298980	1491311	1603083
28	Uttarakhand	101960	117041	131814	143789	158277	175178	200844	221871	NA
29	West Bengal	473205	539618	617470	651492	725992	794033	890757	995502	1150711
30	Andaman & Nicobar Islands	3404	3793	4288	4915	5359	6048	7041	NA	NA
31	Chandigarh	16930	19507	22308	23662	25991	28881	33037	37571	NA
32	Delhi	314650	357400	404841	448487	500524	558546	620720	704529	779647
33	Puducherry	15160	16984	19778	20143	24303	27073	30212	33598	37134

Note: As on 31.07.2020

Source: Directorate of Economics & Statistics of respective State Governments

**Appendix 18: State Wise Growth in Net State Domestic Product at Current Prices (2011-12)**

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Andhra Pradesh	8.88	11.61	13.98	15.69	12.39	16.43	8.86	12.79
2	Arunachal Pradesh	13.57	15.14	23.31	2.98	6.87	13.25	9.38	NA
3	Assam	9.81	12.96	7.73	16.47	10.48	14.09	11.45	NA
4	Bihar	14.37	11.79	8.07	7.72	13.75	11.44	12.91	15.60
5	Chhattisgarh	12.06	16.70	6.05	1.69	9.87	9.21	10.71	8.07
6	Goa	-9.05	-7.30	34.92	16.47	14.09	9.44	5.07	NA
7	Gujarat	19.10	11.49	13.75	11.09	13.72	14.72	13.42	NA
8	Haryana	15.93	15.22	8.49	13.52	13.77	15.92	13.23	13.47
9	Himachal Pradesh	14.70	15.41	9.01	10.88	11.88	10.15	11.68	7.32
10	Jammu & Kashmir	8.51	9.17	1.69	21.44	6.27	11.50	11.38	NA
11	Jharkhand	16.68	7.32	16.47	-6.43	15.63	14.07	9.98	10.75
12	Karnataka	14.59	17.40	10.61	15.15	16.12	12.16	13.78	10.02
13	Kerala	13.22	12.35	10.39	9.83	12.79	10.89	11.82	NA
14	Madhya Pradesh	18.26	17.72	9.14	13.29	21.53	11.42	12.01	12.19
15	Maharashtra	13.81	12.99	7.21	11.72	12.66	7.98	10.53	NA
16	Manipur	5.97	18.47	12.71	7.48	9.37	23.13	7.49	NA
17	Meghalaya	9.01	3.88	1.38	8.79	9.44	7.35	11.69	11.13
18	Mizoram	15.17	21.88	34.24	12.66	13.50	8.46	4.60	NA

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
19	Nagaland	16.71	18.08	10.72	6.36	11.94	13.40	12.84	NA
20	Odisha	14.24	11.86	5.34	3.29	20.51	13.27	11.56	8.12
21	Punjab	11.66	11.53	6.32	10.50	9.77	9.96	11.85	9.53
22	Rajasthan	12.91	10.72	11.59	10.73	11.80	9.63	12.92	8.37
23	Sikkim	11.03	12.82	11.08	16.14	15.37	25.72	10.10	12.93
24	Tamil Nadu	13.91	11.79	11.47	10.42	10.87	12.46	11.18	13.23
25	Telangana	11.96	12.16	11.76	14.62	14.31	14.37	14.43	12.72
26	Tripura	12.70	18.84	14.21	21.89	9.83	10.76	13.49	10.63
27	Uttar Pradesh	13.62	13.76	6.95	13.19	13.65	13.23	14.81	7.49
28	Uttarakhand	14.79	12.62	9.08	10.08	10.68	14.65	10.47	NA
29	West Bengal	14.03	14.43	5.51	11.44	9.37	12.18	11.76	15.59
30	Andaman & Nicobar Islands	11.44	13.05	14.62	9.04	12.86	16.41	NA	NA
31	Chandigarh	15.22	14.36	6.07	9.84	11.12	14.39	13.72	NA
32	Delhi	13.59	13.27	10.78	11.60	11.59	11.13	13.50	10.66
33	Puducherry	12.04	16.45	1.85	20.65	11.40	11.59	11.21	10.52

Note: As on 31.07.2020

Source: Directorate of Economics & Statistics of respective State Governments

**Appendix 19: State Wise Net State Domestic Product (NSDP) at Constant Prices (2011-12)**  
(Figure Rs. in Crore)

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	339996	341335	360239	397064	446997	477566	526813	550584	595605
2	Arunachal Pradesh	10229	10399	11225	13082	12889	13249	14326	15013	NA
3	Assam	129354	132518	138725	146425	167629	179632	195262	207193	NA
4	Bihar	228497	236933	246915	255739	269200	293418	312366	340512	377276
5	Chhattisgarh	142273	148760	163494	165354	169106	179810	187681	200453	210837
6	Goa	38009	32453	27971	36042	41929	46371	49061	56630	NA
7	Gujarat	532809	596659	641489	705629	774775	843930	946511	1036859	NA
8	Haryana	271152	289756	314931	333359	372659	412006	444676	477834	514983
9	Himachal Pradesh	60536	64519	69398	74553	80563	88112	94495	101534	107171
10	Jammu & Kashmir	67274	67316	70536	67154	80602	82636	87258	91666	NA
11	Jharkhand	137383	149526	150609	170568	158231	176363	191573	204423	218232
12	Karnataka	554952	586552	639940	671283	749952	851841	943594	1016514	1085599
13	Kerala	328021	348616	364707	382134	411150	443615	477275	513322	NA
14	Madhya Pradesh	282371	306853	322598	339247	370716	419465	437442	461903	496798
15	Maharashtra	1126595	1189711	1267551	1345341	1452513	1596177	1696214	1794123	NA
16	Manipur	11501	11515	12519	13615	14635	15201	16870	17228	NA

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
17	Meghalaya	18028	18323	18397	17893	18330	19295	19964	21779	23564
18	Mizoram	6404	6836	7831	9960	10948	12029	12518	12791	NA
19	Nagaland	10554	11163	11923	12406	12600	13488	14218	15381	NA
20	Odisha	204226	216301	233122	235931	253192	293218	315886	333146	351661
21	Punjab	239227	251813	267515	278485	294895	315783	334889	354830	374015
22	Rajasthan	395331	409802	434292	465408	501922	530172	560787	600433	630693
23	Sikkim	9742	9970	10590	11437	12484	13416	15204	15972	17060
24	Tamil Nadu	674478	709343	750416	791915	862437	922084	1000308	1079894	1167776
25	Telangana	325139	334205	349593	372897	416892	455731	501140	549481	594806
26	Tripura	17419	18857	20623	24407	23745	27204	30032	32830	35821
27	Uttar Pradesh	645132	673552	707469	729686	792049	883962	945141	995999	1039180
28	Uttarakhand	101960	109529	117777	125702	136144	150303	162160	173211	NA
29	West Bengal	473205	492901	503952	515702	546988	584911	623787	662432	713376
30	Andaman & Nicobar Islands	3404	3558	3811	4151	4483	5091	5763	NA	NA
31	Chandigarh	16930	18305	19813	20353	22058	23842	25855	27565	NA
32	Delhi	314650	334193	356528	387639	431730	461592	492395	529739	568265
33	Puducherry	15160	15507	17239	16055	17025	18287	20147	21730	23591

Source: Directorate of Economics & Statistics of respective State Governments

**Appendix 20: State Wise Growth in Net State Domestic Product (NSDP) at Constant Prices (2011-12)**

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Andhra Pradesh	0.39	5.54	10.22	12.58	6.84	10.31	4.51	8.18
2	Arunachal Pradesh	1.65	7.95	16.54	-1.47	2.79	8.13	4.80	NA
3	Assam	2.45	4.68	5.55	14.48	7.16	8.70	6.11	NA
4	Bihar	3.69	4.21	3.57	5.26	9.00	6.46	9.01	10.80
5	Chhattisgarh	4.56	9.90	1.14	2.27	6.33	4.38	6.80	5.18
6	Goa	-14.62	-13.81	28.85	16.34	10.59	5.80	15.43	NA
7	Gujarat	11.98	7.51	10.00	9.80	8.93	12.16	9.55	NA
8	Haryana	6.86	8.69	5.85	11.79	10.56	7.93	7.46	7.77
9	Himachal Pradesh	6.58	7.56	7.43	8.06	9.37	7.24	7.45	5.55
10	Jammu & Kashmir	0.06	4.78	-4.79	20.03	2.52	5.59	5.05	NA
11	Jharkhand	8.84	0.72	13.25	-7.23	11.46	8.62	6.71	6.76
12	Karnataka	5.69	9.10	4.90	11.72	13.59	10.77	7.73	6.80
13	Kerala	6.28	4.62	4.78	7.59	7.90	7.59	7.55	NA
14	Madhya Pradesh	8.67	5.13	5.16	9.28	13.15	4.29	5.59	7.55
15	Maharashtra	5.60	6.54	6.14	7.97	9.89	6.27	5.77	NA
16	Manipur	0.12	8.72	8.75	7.49	3.87	10.98	2.12	NA

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
17	Meghalaya	1.64	0.40	-2.74	2.44	5.26	3.47	9.09	8.19
18	Mizoram	6.75	14.55	27.18	9.92	9.88	4.06	2.18	NA
19	Nagaland	5.77	6.81	4.05	1.56	7.05	5.41	8.18	NA
20	Odisha	5.91	7.78	1.20	7.32	15.81	7.73	5.46	5.56
21	Punjab	5.26	6.24	4.10	5.89	7.08	6.05	5.95	5.41
22	Rajasthan	3.66	5.98	7.16	7.85	5.63	5.77	7.07	5.04
23	Sikkim	2.34	6.21	8.00	9.16	7.46	13.33	5.05	6.81
24	Tamil Nadu	5.17	5.79	5.53	8.91	6.92	8.48	7.96	8.14
25	Telangana	2.79	4.60	6.67	11.80	9.32	9.96	9.65	8.25
26	Tripura	8.26	9.36	18.35	-2.71	14.56	10.40	9.32	9.11
27	Uttar Pradesh	4.41	5.04	3.14	8.55	11.60	6.92	5.38	4.34
28	Uttarakhand	7.42	7.53	6.73	8.31	10.40	7.89	6.81	NA
29	West Bengal	4.16	2.24	2.33	6.07	6.93	6.65	6.20	7.69
30	Andaman & Nicobar Islands	4.52	7.13	8.92	8.00	13.55	13.20	NA	NA
31	Chandigarh	8.12	8.24	2.72	8.38	8.09	8.44	6.61	NA
32	Delhi	6.21	6.68	8.73	11.37	6.92	6.67	7.58	7.27
33	Puducherry	2.29	11.16	-6.87	6.04	7.42	10.17	7.85	8.57

Note: As on 31.07.2020

Source: Directorate of Economics & Statistics of respective State Governments



**Appendix 21: State Wise Per Capita NSDP at Current Prices (2011-12)**  
(Figures in Rs.)

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	69000	74687	82870	93903	108002	120676	139680	151173	169519
2	Arunachal Pradesh	73068	81353	91809	110929	112046	117344	130197	139588	NA
3	Assam	41142	44599	49734	52895	60817	66330	75151	82837	NA
4	Bihar	21750	24487	26948	28671	30404	34045	36850	40982	46664
5	Chhattisgarh	55177	60849	69880	72936	72991	78924	84823	92413	98281
6	Goa	259444	234354	215776	289185	334576	378953	411740	430081	NA
7	Gujarat	87481	102826	113139	127017	139254	156295	175068	195845	NA
8	Haryana	106085	121269	137770	147382	164963	185050	211526	236147	264207
9	Himachal Pradesh	87721	99730	114095	123299	135512	150290	165025	183108	195255
10	Jammu & Kashmir	53173	56828	61108	61211	73215	76634	84166	92347	NA
11	Jharkhand	41254	47360	50006	57301	52754	60018	67484	73155	79873
12	Karnataka	90263	102319	118829	130024	148108	170133	188765	212477	231246
13	Kerala	97912	110314	123388	135537	148133	166246	183435	204105	NA
14	Madhya Pradesh	38497	44773	51849	55678	62080	74324	81642	90165	99763
15	Maharashtra	99597	112092	125261	132836	146815	163738	175121	191736	NA
16	Manipur	39762	41230	47798	52717	55447	59345	71507	75226	NA
17	Meghalaya	60013	64036	65118	64638	68836	73753	77504	84725	92174
18	Mizoram	57654	65013	77584	103049	114055	127107	142438	147602	NA

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
19	Nagaland	53010	61225	71510	78367	82466	92315	104681	116882	NA
20	Odisha	48499	55105	61305	64233	65993	79159	89287	99196	106804
21	Punjab	85577	94318	103831	108970	118858	128780	139775	154313	166830
22	Rajasthan	57192	63658	69480	76429	83426	91946	99366	110606	118159
23	Sikkim	158667	174183	194624	214148	245987	280729	349163	380926	425656
24	Tamil Nadu	93112	105340	116960	129494	142028	156595	175276	193964	218599
25	Telangana	91121	101007	112162	124104	140840	159395	180494	204488	228216
26	Tripura	47155	52574	61815	69857	84267	91596	100444	112849	123630
27	Uttar Pradesh	32002	35812	40124	42267	47118	52744	58821	66512	70419
28	Uttarakhand	100305	113610	126247	135881	147592	161172	182320	198738	NA
29	West Bengal	51543	58195	65932	68876	75992	82291	91401	101138	115748
30	Andaman & Nicobar Islands	88177	96027	106401	119291	126995	140335	159664	NA	NA
31	Chandigarh	158967	180457	203356	212594	230009	252236	285048	320300	NA
32	Delhi	185001	205568	227900	247209	270261	295558	322000	358430	389143
33	Puducherry	119649	130548	148147	146921	172727	187357	203583	220461	237279
Note: As on 31.07.2020										
Source: Directorate of Economics & Statistics of respective State Governments										

**Appendix 22: State Wise Growth in Per Capita NSDP at Current Prices (2011-12)**

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Andhra Pradesh	8.24	10.96	13.31	15.01	11.74	15.75	8.23	12.14
2	Arunachal Pradesh	11.34	12.85	20.83	1.01	4.73	10.95	7.21	NA
3	Assam	8.40	11.51	6.36	14.98	9.07	13.30	10.23	NA
4	Bihar	12.59	10.05	6.39	6.05	11.98	8.24	11.21	13.87
5	Chhattisgarh	10.28	14.84	4.37	0.08	8.13	7.48	8.95	6.35
6	Goa	-9.67	-7.93	34.02	15.70	13.26	8.65	4.45	NA
7	Gujarat	17.54	10.03	12.27	9.63	12.24	12.01	11.87	NA
8	Haryana	14.31	13.61	6.98	11.93	12.18	14.31	11.64	11.88
9	Himachal Pradesh	13.69	14.40	8.07	9.90	10.91	9.80	10.96	6.63
10	Jammu & Kashmir	6.88	7.53	0.17	19.61	4.67	9.83	9.72	NA
11	Jharkhand	14.80	5.59	14.59	-7.93	13.77	12.44	8.40	9.18
12	Karnataka	13.36	16.14	9.42	13.91	14.87	10.95	12.56	8.83
13	Kerala	12.67	11.85	9.85	9.29	12.23	10.34	11.27	NA
14	Madhya Pradesh	16.30	15.80	7.38	11.50	19.72	9.85	10.44	10.64
15	Maharashtra	12.55	11.75	6.05	10.52	11.53	6.95	9.49	NA
16	Manipur	3.69	15.93	10.29	5.18	7.03	20.49	5.20	NA
17	Meghalaya	6.70	1.69	-0.74	6.49	7.14	5.09	9.32	8.79
18	Mizoram	12.76	19.34	32.82	10.68	11.44	12.06	3.63	NA
19	Nagaland	15.50	16.80	9.59	5.23	11.94	13.40	11.66	NA
20	Odisha	13.62	11.25	4.78	2.74	19.95	12.79	11.10	7.67

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
21	Punjab	10.22	10.09	4.95	9.07	8.35	8.54	10.40	8.11
22	Rajasthan	11.31	9.15	10.00	9.16	10.21	8.07	11.31	6.83
23	Sikkim	9.78	11.74	10.03	14.87	14.12	24.38	9.10	11.74
24	Tamil Nadu	13.13	11.03	10.72	9.68	10.26	11.93	10.66	12.70
25	Telangana	10.85	11.04	10.65	13.49	13.17	13.24	13.29	11.60
26	Tripura	11.49	17.58	13.01	20.63	8.70	9.66	12.35	9.55
27	Uttar Pradesh	11.91	12.04	5.34	11.48	11.94	11.52	13.08	5.87
28	Uttarakhand	13.27	11.12	7.63	8.62	9.20	13.12	9.00	NA
29	West Bengal	12.90	13.29	4.47	10.33	8.29	11.07	10.65	14.45
30	Andaman & Nicobar Islands	8.90	10.80	12.11	6.46	10.50	13.77	NA	NA
31	Chandigarh	13.52	12.69	4.54	8.19	9.66	13.01	12.37	NA
32	Delhi	11.12	10.86	8.47	9.32	9.36	8.95	11.31	8.57
33	Puducherry	9.11	13.48	-0.83	17.56	8.47	8.66	8.29	7.63
Note: As on 31.07.2020									
Source: Directorate of Economics & Statistics of respective State Governments									

**Appendix 23: State Wise Per Capita NSDP at Constant Prices (2011-12)**  
(Figures in Rs.)

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Andhra Pradesh	69000	68865	72254	79174	88609	94115	103214	107241	115333
2	Arunachal Pradesh	73068	72820	77044	87973	85020	85644	90727	93191	NA
3	Assam	41142	41609	43002	44809	50642	53575	57835	60695	NA
4	Bihar	21750	22201	22776	23223	24064	25820	26699	28668	31287
5	Chhattisgarh	55177	56777	61409	61122	61515	64372	66122	69500	71938
6	Goa	259444	220019	188358	241081	278601	305875	321289	368685	NA
7	Gujarat	87481	96683	102589	111370	120683	129738	142068	153495	NA
8	Haryana	106085	111780	119791	125032	137818	150241	159892	169409	180026
9	Himachal Pradesh	87721	92672	98816	105241	112723	122208	130644	139469	146268
10	Jammu & Kashmir	53173	52406	54088	50724	59967	60557	62984	65178	NA
11	Jharkhand	41254	44176	43779	48781	44524	48826	52277	54982	57863
12	Karnataka	90263	94375	101858	105697	116813	131254	143827	153276	161931
13	Kerala	97912	103551	107846	112444	120387	129251	138368	148078	NA
14	Madhya Pradesh	38497	41142	42548	44027	47351	52782	54264	56498	59929
15	Maharashtra	99597	104008	109597	115058	122889	133691	140724	147450	NA
16	Manipur	39762	38954	41441	44101	46389	47151	51211	51180	NA
17	Meghalaya	60013	59703	58681	55880	56039	57752	58493	62458	66153

S. No.	State\UT	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
18	Mizoram	57654	60261	67594	85056	91845	99089	106537	107853	NA
19	Nagaland	53010	55482	58619	60372	60663	64939	68456	73276	NA
20	Odisha	48499	51087	54762	55123	58838	67821	72760	76417	80330
21	Punjab	85577	88915	93238	95807	100141	105848	110802	115882	120569
22	Rajasthan	57192	58441	61053	64496	68565	71394	74441	78570	81355
23	Sikkim	158667	160553	168897	180675	195066	207355	232483	242002	255772
24	Tamil Nadu	93112	97257	102191	107117	115875	123206	133029	142941	153853
25	Telangana	91121	92732	96039	101424	112267	121512	132293	143618	153927
26	Tripura	47155	50501	54645	63992	61612	69860	76358	82632	89285
27	Uttar Pradesh	32002	32908	34044	34583	36973	40641	42798	44421	45648
28	Uttarakhand	100305	106318	112803	118788	126952	138286	147204	155151	NA
29	West Bengal	51543	53157	53811	54520	57255	60618	64007	67300	71757
30	Andaman & Nicobar Islands	88177	90064	94570	100754	106237	118112	130670	NA	NA
31	Chandigarh	158967	169336	180615	182867	195205	208230	223083	234998	NA
32	Delhi	185001	192220	200702	213669	233115	244255	255431	269505	283636
33	Puducherry	119649	119196	129127	117102	121000	126556	135763	142583	150744

Note: As on 31.07.2020

Source: Directorate of Economics & Statistics of respective State Governments

**Appendix 24: State Wise Growth in Per Capita NSDP at Constant Prices (2011-12)**

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Andhra Pradesh	-0.20	4.92	9.58	11.92	6.21	9.67	3.90	7.55
2	Arunachal Pradesh	-0.34	5.80	14.19	-3.36	0.73	5.94	2.72	NA
3	Assam	1.14	3.35	4.20	13.02	5.79	7.95	4.94	NA
4	Bihar	2.08	2.59	1.96	3.62	7.30	3.40	7.37	9.13
5	Chhattisgarh	2.90	8.16	-0.47	0.64	4.64	2.72	5.11	3.51
6	Goa	-15.20	-14.39	27.99	15.56	9.79	5.04	14.75	NA
7	Gujarat	10.52	6.11	8.56	8.36	7.50	9.50	8.04	NA
8	Haryana	5.37	7.17	4.37	10.23	9.01	6.42	5.95	6.27
9	Himachal Pradesh	5.64	6.63	6.50	7.11	8.41	6.90	6.75	4.87
10	Jammu & Kashmir	-1.44	3.21	-6.22	18.22	0.98	4.01	3.48	NA
11	Jharkhand	7.08	-0.90	11.43	-8.73	9.66	7.07	5.17	5.24
12	Karnataka	4.56	7.93	3.77	10.52	12.36	9.58	6.57	5.65
13	Kerala	5.76	4.15	4.26	7.06	7.36	7.05	7.02	NA
14	Madhya Pradesh	6.87	3.42	3.47	7.55	11.47	2.81	4.12	6.07
15	Maharashtra	4.43	5.37	4.98	6.81	8.79	5.26	4.78	NA
16	Manipur	-2.03	6.39	6.42	5.19	1.64	8.61	-0.06	NA
17	Meghalaya	-0.52	-1.71	-4.77	0.28	3.06	1.28	6.78	5.92
18	Mizoram	4.52	12.17	25.83	7.98	7.89	7.52	1.23	NA

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
19	Nagaland	4.66	5.65	2.99	0.48	7.05	5.41	7.04	NA
20	Odisha	5.33	7.19	0.66	6.74	15.27	7.28	5.03	5.12
21	Punjab	3.90	4.86	2.75	4.52	5.70	4.68	4.58	4.04
22	Rajasthan	2.19	4.47	5.64	6.31	4.13	4.27	5.55	3.54
23	Sikkim	1.19	5.20	6.97	7.97	6.30	12.12	4.09	5.69
24	Tamil Nadu	4.45	5.07	4.82	8.18	6.33	7.97	7.45	7.63
25	Telangana	1.77	3.57	5.61	10.69	8.23	8.87	8.56	7.18
26	Tripura	7.10	8.21	17.10	-3.72	13.39	9.30	8.22	8.05
27	Uttar Pradesh	2.83	3.45	1.58	6.91	9.92	5.31	3.79	2.76
28	Uttarakhand	5.99	6.10	5.31	6.87	8.93	6.45	5.40	NA
29	West Bengal	3.13	1.23	1.32	5.02	5.87	5.59	5.14	6.62
30	Andaman & Nicobar Islands	2.14	5.00	6.54	5.44	11.18	10.63	NA	NA
31	Chandigarh	6.52	6.66	1.25	6.75	6.67	7.13	5.34	NA
32	Delhi	3.90	4.41	6.46	9.10	4.78	4.58	5.51	5.24
33	Puducherry	-0.38	8.33	-9.31	3.33	4.59	7.27	5.02	5.72
Note: As on 31.07.2020									
Source: Directorate of Economics & Statistics of respective State Governments									



Appendix 25 : Budget - At a Glance

(Rs. in crore)

Sources	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	Actual	Actual	Actual	Actual	Actual														(P)	BE
1. Revenue Receipts	4495.02	4936.78	5637.77	6660.50	8463.88	10009.82	12026.35	13205.88	15118.46	18781.12	22419.45	24769.56	26136.79	31564.56	40638.35	47053.93	52756.03	56151.70	58417.14	75308.75
2. Tax Revenue	3188.67	3452.82	3965.95	4749.18	5933.93	7239.40	8583.18	9138.30	10047.69	11870.98	14123.82	16411.72	18319.11	19836.82	27447.70	32441.17	33497.07	38658.20	37364.49	47649.41
(a)	1603.19	1702.52	1979.73	2366.40	3175.89	4050.90	5109.83	5392.11	5547.57	6154.35	7169.93	8231.53	8939.32	9487.01	11941.92	13299.25	21143.64	23906.16	20593.04	25979.91
(b)	1585.48	1750.30	1986.22	2382.78	2758.04	3188.50	3473.35	3746.19	4500.12	5716.63	6953.89	8180.19	9379.79	10349.81	11478.95	13299.25	12353.43	14732.04	16771.45	21669.50
3. Non-Tax Revenue	1306.35	1483.96	1671.82	1911.32	2529.95	2770.42	3443.17	4067.58	5070.77	6910.14	8295.63	8357.84	7817.68	11727.74	13190.65	14612.76	19258.96	17493.50	21052.65	27659.34
(a)	851.88	987.14	1105.55	1052.45	1426.52	1250.40	1601.40	1951.80	2254.14	2802.89	3038.22	3535.63	3752.71	4335.06	5853.01	5351.41	7846.67	8257.98	8749.98	11820.34
(b)	454.47	496.82	566.27	858.87	1103.42	1520.02	1841.77	2115.78	2816.63	4107.25	5257.41	4822.20	4064.97	7392.68	7337.64	9261.35	11412.29	9235.52	12302.67	15839.00
4. Capital Receipts	1571.94	2709.03	2185.38	3027.52	5893.90	1762.36	2734.20	4003.88	4223.01	3434.91	3663.02	5732.61	4326.43	8476.94	13798.92	12308.75	14948.25	9736.44	12315.03	11061.25
(a)	2.49	3.23	3.94	7.58	9.81	15.75	44.22	18.90	21.79	24.12	23.42	43.11	23.32	33.06	31.06	38.45	42.41	47.57	49.19	61.25
(b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.09	0.00	0.00	0.00
(c)	1569.45	2705.80	2181.44	3019.94	5884.09	1746.61	2689.98	3984.98	4201.23	3410.79	3639.60	5689.50	4303.11	8443.88	13767.86	12270.30	14880.75	9688.87	12265.84	11000.00
5. Total Receipts (1+4)	6066.96	7645.81	7823.15	9688.02	14357.77	11772.19	14760.55	17209.76	19341.47	22216.03	26082.47	30502.17	30463.22	40041.50	54437.27	59362.68	67704.28	65888.14	70732.17	86370.00
6. Non-Plan Expenditure	4072.59	5608.68	5714.21	6082.64	9295.10	7760.26	8806.77	10126.75	12608.90	13420.52	15138.81	18064.16	19277.06	21296.12	23150.20	25097.46	31736.23	29822.51	33273.03	37445.06
7. On Revenue Account of Which	3538.25	4483.27	4314.95	4995.73	6952.39	6632.25	7852.09	9063.70	11369.76	11940.92	13345.30	15656.61	17184.41	19358.98	20759.81	22895.38	28427.24	26647.61	28829.69	34303.15
(a)	567.81	1418.95	1182.32	1141.32	1419.55	1613.38	1758.03	1886.88	2307.45	2227.54	2267.08	2391.25	2614.44	2929.15	3320.08	4172.25	4661.68	4851.97	5307.71	5645.53
(b)	1594.96	1752.71	1926.05	2116.54	2325.87	2517.68	2984.58	3800.67	5125.38	5434.06	6150.05	6446.02	6934.16	7381.55	8177.92	8888.96	10789.67	12091.42	12782.34	15542.33
(c)	515.31	519.51	560.39	620.09	657.16	678.97	818.32	988.40	1680.83	2081.10	2296.69	2931.19	3484.31	3465.32	3990.01	4136.29	5913.24	5988.91	6004.60	7060.19
8. On Capital Account of Which	534.34	1125.41	1399.27	1086.91	2942.71	1128.01	954.68	1063.05	1239.14	1479.60	1793.51	2407.55	2092.65	1937.14	2390.39	2202.08	3308.99	3174.90	4443.34	2941.91
(a)	13.97	127.12	426.63	801.88	129.89	674.05	572.43	724.69	1067.61	1063.17	1484.31	2044.54	1858.17	1721.71	2079.42	1920.39	2788.46	2893.42	4057.86	2584.66
(b)	191.19	858.38	881.31	151.19	151.19	162.04	174.94	138.71	122.60	236.25	154.71	138.52	138.75	158.17	166.51	157.50	161.04	166.68	173.54	172.29
(c)	0.00	0.00	0.00	0.00	2.15	0.02	25.61	35.82	21.00	43.33	47.88	67.38	15.81	22.82	72.23	47.04	270.69	42.30	46.51	70.00

Sources	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	Actual	Actual	Actual	Actual	Actual														(P)	BE
(d) Loans and Advances	329.18	139.90	91.32	285.03	2659.48	291.90	181.70	163.83	27.93	136.84	106.61	157.11	79.91	34.44	72.23	77.15	88.80	72.50	165.43	114.95
9. Plan Expenditure	1994.37	2037.13	2108.94	3605.38	5062.68	4011.92	5953.78	7083.01	6732.57	8795.51	10943.67	12438.01	11186.16	18745.38	31287.08	34265.22	35968.05	36065.63	37459.14	48924.94
(a) On Revenue Account	1261.87	1026.20	1091.00	1980.18	2138.43	2431.69	2979.88	3813.20	3758.48	6003.81	7646.29	7743.26	6287.48	12435.92	15793.03	22193.66	22523.17	23983.13	27626.94	38812.79
(b) of which Grants for creation of Capital Assets											244.77	1174.38	691.94	3652.09	4030.41	6738.28	5210.54	7228.38		10020.18
(c) On Capital Account	732.50	1010.93	1017.94	1625.20	2924.25	1580.24	2973.90	3269.81	2974.09	2791.70	3297.38	4694.74	4898.68	6309.46	15494.05	12071.56	13444.88	12082.50	9832.20	10112.15
10. Total Expenditure (6+9)	6066.96	7645.81	7823.15	9688.02	14357.77	11772.19	14760.55	17209.76	19341.47	22216.03	26082.47	30502.17	30463.22	40041.50	54437.27	59362.68	67704.28	65888.14	70732.17	86370.00
(a) Revenue Expenditure (7+9a)	4800.12	5509.48	5405.95	6975.91	8490.82	9063.94	10831.97	12876.90	15128.24	17944.73	20991.58	23399.87	23471.89	31794.90	36552.83	45089.04	50950.41	50630.74	56456.63	73315.94
(b) Capital Expenditure (8+9b)	1266.85	2136.34	2417.20	2712.11	5866.96	2708.25	3928.58	4332.86	4213.23	4271.30	5090.89	7102.30	6991.33	8246.60	17884.44	14273.64	16753.87	15237.40	14275.54	13054.06
Revenue Deficit (10a-1)	305.10	572.70	-231.82	315.41	26.94	-945.88	-1194.38	-328.98	9.78	-836.39	-1427.87	-1369.68	-2664.90	230.34	-4085.52	-1964.89	-1805.62	-5520.96	-1960.51	-1992.81
% of GSDP *	0.93%	1.31%	-0.44%	0.53%	0.04%	-1.41%	-1.42%	-0.37%	0.01%	-0.72%	-0.95%	-0.78%	-1.41%	0.11%	-1.98%	-0.83%	-0.67%	-1.86%	-0.60%	-0.63%
Effective Revenue Deficit (11-9b)@	305.10	572.70	-231.82	315.41	26.94	-945.88	-1194.38	-328.98	9.78	-836.39	-1672.64	-2544.06	-3356.84	-3421.75	-8115.93	-8703.17	-7016.16	-12749.34	-1960.51	-12012.99
% of GSDP *	0.93%	1.31%	-0.44%	0.53%	0.04%	-1.41%	-1.42%	-0.37%	0.01%	-0.72%	-1.11%	-1.46%	-1.78%	-1.57%	-3.93%	-3.68%	-2.60%	-4.29%	-0.60%	-3.78%
13. Fiscal Deficit {10- (1+4a +4b+ 8a+ 8b)}	1364.29	1720.30	873.49	2218.06	5603.00	910.52	1942.61	3121.58	3011.01	2111.36	2000.58	3506.44	2306.19	6564.00	11521.93	10192.41	11931.25	6628.77	8034.44	8243.04
% of GSDP \$	4.15%	3.92%	1.65%	3.71%	9.20%	1.36%	2.31%	3.56%	2.99%	1.83%	1.33%	2.01%	1.22%	3.00%	5.58%	4.31%	4.42%	2.23%	2.45%	2.59%
14. Primary Deficit (13-7a)	796.48	301.35	-308.83	1076.73	4183.46	-702.86	184.58	1234.70	703.56	-116.18	-266.50	1115.19	-308.25	3634.85	8201.85	6020.16	7269.57	1776.80	2726.73	2597.51
% of GSDP	2.42%	0.69%	-0.58%	1.80%	6.87%	-1.05%	0.22%	1.41%	0.70%	-0.10%	-0.18%	0.64%	-0.16%	1.66%	3.97%	2.55%	2.69%	0.60%	0.83%	0.82%
GSDP	32876.64	43835.51	52813.87	59757.72	60900.54	66934.75	83949.59	87793.93	100620.68	115535.14	150917.59	174723.69	188566.71	218525.17	206612.80	236249.72	269816.14	29703.73	328598.01	31817

**Appendix 26: District-wise yield rate of food grains, pulses and cereals, oilseeds**

Name of District	Yield Rate (kg/hac)											
	Year 2020-21			Year 2019-20			Year 2018-19			Year 2017-18		
	Pulses	Cereals	Oilseeds	Pulses	Cereals	Oilseeds	Pulses	Cereals	Oilseeds	Pulses	Cereals	Oilseeds
Bokaro	1389	3464	1245	1460	2570	643	1474	1071	587	885	3661	583
Chatra	1166	3045	786	1085	2704	694	1111	1875	669	1113	3303	610
Deoghar	731	3258	1100	1216	3154	884	1250	1846	881	995	3388	789
Dhanbad	926	2806	1023	1163	2747	906	1169	1047	821	1186	2880	946
Dumka	855	2597	794	1079	2730	737	1084	2129	736	959	2953	643
East Singhbhum	803	3041	738	845	2916	604	850	2649	600	912	2868	732
Garhwa	818	2663	715	697	2047	404	711	1415	402	689	2447	547
Giridih	1217	3499	802	1156	2831	516	1163	1461	655	1238	2766	666
Godda	845	2520	841	1213	1533	846	1229	1513	44	1142	2842	70
Gumla	1393	2350	1486	1273	2348	1085	1283	1666	1050	1358	2768	1237
Hazaribagh	917	2423	1086	1209	2513	914	1218	2477	907	1202	2501	896
Jamtara	1019	2428	800	998	2444	868	1038	1740	598	980	2400	886
Khunti	654	2220	675	952	2649	863	955	1031	511	1146	2162	605

Name of District	Yield Rate (kg/hac)											
	Year 2020-21			Year 2019-20			Year 2018-19			Year 2017-18		
	Pulses	Cereals	Oilseeds	Pulses	Cereals	Oilseeds	Pulses	Cereals	Oilseeds	Pulses	Cereals	Oilseeds
Koderma	1101	2018	1143	1209	2332	869	1211	1990	860	1156	2307	852
Latehar	1461	1972	689	1084	1869	810	1112	2440	812	1092	2136	814
Lohardaga	883	2333	1043	852	2943	900	874	2203	878	808	3103	902
Pakur	768	1905	310	846	1864	915	854	1100	903	837	2588	906
Palamu	1004	2025	887	855	2005	549	868	1414	669	833	2531	485
Ramgarh	916	2381	1089	1192	2505	918	1204	2464	904	1171	2496	895
Ranchi	876	3312	869	942	3056	797	951	2244	905	896	3365	684
Sahibganj	586	3094	00	657	2839	942	692	851	546	705	2352	471
Seraikela	927	2807	810	1117	1674	1252	1130	2245	731	1338	3097	1186
Simdega	1072	2912	961	1123	2712	695	1125	2870	688	1346	2852	675
West Singhbhum	876	1849	840	927	1957	525	936	1503	504	940	1914	575

**Appendix 27: Area and Production of different varieties of Fruits**  
**Area- (000 ha)/ Production – (000tones)**

Fruits	2019-20		2018-19		2017-18	
	Area	Production	Area	Production	Area	Production
Bengal Quince						
Indian Gooseberry	0.29	1.73	0.31	1.60	0.29	1.49
Guava	8.77	95.06	8.51	90.82	8.32	89.30
Banana	5.61	31.11	9.18	32.75	9.17	32.05
Indian Plum/Ber	1.00	11.95	0.98	11.63	0.94	11.61
Jackfruit	15.22	166.11	14.90	140.91	14.72	137.85
Litchi	4.17	65.44	4.81	72.11	4.12	64.99
Mango	57.16	437.36	54.70	432.63	54.53	435.85
Papaya	2.80	119.50	2.71	117.15	0.01	0.04
Pomegranate	0.02	0.13	0.01	0.05	0.01	0.04
Other Fruits	2.12	102.97	2.18	103.38	1.73	99.34
Lime & Lemon	7.31	88.55	5.09	83.32	7.15	54.59
Total	105.31	1153.47	104.08	1118.36	104.30	1081.69

**Appendix 28: Area and Production of different varieties of Vegetables**  
**Area- (000 ha)/ Production – (000tones)**

Vegetables	2019-20		2018-19		2017-18	
	Area	Production	Area	Production	Area	Production
Beans	13.31	199.02	13.03	193.32	12.91	191.17
Bitter Gourd	2.04	15.82	1.65	13.65	1.59	13.26
Bottle Gourd	1.45	20.71	1.71	17.95	1	15.43
Brinjal	80.78	268.89	80.35	256.71	80.06	252.59
Cabbage	19.25	328.19	19.09	321.74	19.06	326.22
Capsicum	3.04	33.67	2.99	33.09	2.98	33.03
Carrot	1.09	11.69	1.14	11.3	1.05	10
Cauliflower	22.13	309.75	21.99	302.42	21.92	299.64
Green Chili	15.31	253.25	15.04	245.08	14.54	253.3
Cucumber	4.25	26.02	1.52	23.6	1.41	19
Pumpkin	1.8	26.62	1.29	26.87	0.98	23.5
Okra	6.07	100.53	5.62	94.5	5.38	92.14
Onion	19.76	293.26	17.98	289.66	17.16	289.04
Pea (Green)	15.93	354.34	15.93	349.68	15.72	347.14
Potato	48.87	705.62	49.02	695.45	48.21	690.22
Radish	3.45	50.21	3.11	50.09	2.83	46.91
Tomato	21.25	277.19	20.51	271.03	20.1	265.26
Other vegetables	22.71	317.15	22.39	311.09	22.2	307.28
Total	302.49	3591.93	294.36	3507.23	289.1	3475.13



