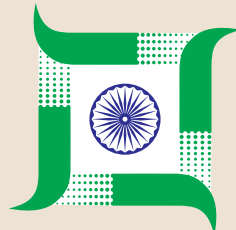


JHARKHAND **ECONOMIC SURVEY** 2018-19



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



झारखण्ड सरकार

JHARKHAND ECONOMIC SURVEY 2018-19

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

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CONTENTS

List of Tables, Figures, Boxes, Maps, Appendices	xviii - xxx
Acronyms and Abbreviations	xxxii - lii
CHAPTER I: MACRO-ECONOMIC OVERVIEW	1 - 16
A Decomposition of Jharkhand's Growth Story	
Sectoral Variations in Growth Rate	
Sectoral Contribution to Growth Rate	
Sectoral Shares in GSDP	
Agriculture, Forestry and Fishing Sector	
Industry	
Tertiary/ Service Sector	
Inflation in Jharkhand	
Progress in the Other Developmental Indicators	
Education	
Gender	
Amenities and Social Infrastructure	
Health and Physical Well Being	
Nutrition	
Infant and Child Mortality	
Family Planning	
Decrease in Incidence of Poverty	
Inter District Disparity in the Incidence of Multi-dimensional Poverty	
Conclusion	
CHAPTER II : FISCAL DEVELOPMENT AND STATE FINANCES	17 - 36
Expenditure	
Establishment Expenditure	
Receipts	
Revenue Receipts	
State's Own Taxes	
GST in the State	
States' Receipts from Non-Taxes	
Grant in Aid from GoI	
Royalty from Minerals	
Share of Centre and State in Revenue Receipts of the State	
Receipts as a percentage of GSDP	
Liabilities of the state	
Debt Sustainability	
Deficit position of the state	
Conclusion	

Development of Financial Infrastructures
Network of Banking Institutions
Coverage of Banking Institutions
Performance of the Banking Sector in Jharkhand
Deposit and credit to GSDP Ratio
C-D Ratio
Loans and Advances
Recovery of Loans and Advances
Non Performing Assets (NPAs)
Sectoral Composition of NPAs
Performance of Bank under Annual Credit Plan (ACP)
Agriculture and Status of KCC
Conversion of KCC into Smart KCC
Micro Small and Medium Enterprises (MSMEs)
Collateral Free Loan up to Rs2.00 Crore in MSME
Education Loan
Housing Loan
Pradhan Mantri Mudra Yojana (PMMY)
Stand up India Loan Programme
National Rural Livelihood Mission (NRLM)
National Rural Livelihood Mission- Jharkhand's Achievement
Concluding Remarks

CHAPTER IV: RURAL DEVELOPMENT AND PANCHAYATI RAJ

GOVERNANCE
LOCAL SELF GOVERNANCE
Call Centre for Grievance Redressal
Decentralised Planning
People's Plan Campaign "Sabki Yojana Sabka Vikas"
"Hamari Yojana Hamara Vikas"- Jharkhand
Strategies adopted for the Abhiyaan
Major Qualitative outcomes of "Hamari Yojana Hamara Vikas" 2016-16 to 2018-19
Highlights of 2018-19 "People's Plan Campaign"
Social Audit Unit
Deepening Democracy and Strengthening Bottom UP Accountability through Social Audits
Schemes Audited by the Social Audit Unit
SAUs Unique Modus Operandi and Innovations
Creating Resource Pool through Capacity Building Programmers
National Rural Livelihood Mission (NRLM)
Jharkhand State Livelihood Promotion Society (JSLPS)

Financial Inclusion

Livelihood

System of Crop Intensification (SCI/SRI)

Goat based livelihood intervention

Community Managed Sustainable

Promotion of organic farming

Producer's Group/producer's Company

Skills and Placement

Non – farm

Social development and convergence

Other Initiatives

NRLM – Non Intensive

Skill Deed

Mahila Kisan Sashaktikaran Pariyojana (MKSP) - NRLM

MGNREGA

Preparation of Annual Action Plan (AAP) and Labour Budget for 2019-20

Priority to Soil and Water Conservation

Timely Payments

SBT under MGNREGA

Geo MGNREGA

GIS based planning

Panchayat Strengthening

New Initiatives under NREGA

Mode of functioning

Benefits of SECURE

e- Saksham- digital learning platform for MGNREGS

Planning Cell

Watershed Based Planning in MGNREGA

Guidelines for Dealing with Rejected Payments

MGNREGA-NRLM-CFT Project

Few Improvements due to CFT

NREGA Sahayat Kendras

Birsa Munda Bagwani Yojana (BMBY) – ‘A new milestone for Rural Livelihood’

Objective

Why Mango Plantation

Progress of BMBY

Details of ‘ Birsa Munda Bagwani Yojana’ implemented in the FYs 2016-17 and 2018-19

Future Strategies

Irrigation

Pradhan Mantri Krishi Sinchai Yojana (PMKSY)

JHIMDI

Project Objectives

Project Components

INFRASTRUCTURE

Pradhan Mantri Awas Yojana (PMAY-G)

Physical Progress in 19 Aspirational Districts of Jharkhand

Pradhan Mantri Sahaj Bijli Har Ghar Yojana – ‘Saubhagya’

Scope of the scheme

Shyama Prasad Mukherjee Rurban Mission

About the Mission

Major achievements of the Mission

MP Adarsh Gram Yojana

Prime Minister Adarsh Gram Yojana

Aadarsh Gram Yojana

Chief Minister Adarsh Gram Yojana

JOHAR

Progress as on Dec, 2018 under the project

Rural Work Affairs

Pradhan Mantri Gram Sadak Yojana (PMGSY)

Mukhya Mantri Gram Setu Yojana

Swachh Bharat Mission – Gramin (SBM-G)

Conclusion

CHAPTER V : URBAN DEVELOPMENT

79 - 96

Introduction

Status of Distribution of the Urban Population in Jharkhand

Living Conditions in the Urban Areas

People Living in Slums

Status of earning population

Infrastructure and Amenities

Electricity, Drinking Water, Sanitation Fuel & Health

Initiatives and Programmes for Urban Development

Atal Mission for Rejuvenation & Urban Transformation (AMRUT)

Swachh Bharat Mission (SBM)

Solid Waste Management

Dindyal Antoday Yojana-National Urban Livelihood Mission (DAY-NULM)

Namami Gange

Pradhan Mantri Awas Yojana - PMAY (U)

Reforms were undertaken for Revenue Augmentation

Action Taken by the state

Legal Reform

Administrative Reforms

Accounting and Audit reform

Credit Rating of ULBs

Conclusions

CHAPTER VI : AGRICULTURE AND ALLIED ACTIVITIES**97 - 112**

State Agriculture Profile

Agro-Climate Zone

The pattern of Land Utilization

Rainfall

Production of Crops

Kharif Crops

Rabi Crops

Crop-wise Area, production and yield of total pulses, food grains, oilseeds and Cereals

District wise total yield (average) for cereals, pulses, food grains and oilseeds for the year 2017-18

Fertilizers

Consumption of Fertilizer

Supply of Fertilizer

Horticulture

Fruits

Vegetables

Livestock and milk production

Fishery

Schemes and Initiative for Agriculture

Exchange, Distribution and Seed Production

Krishi Mela, Workshop, Exhibition, Training, Tour & Extension

Vishesh Fiscal Yojna

Single Window Centre

Conversion of Fallow Land into Cropped Area Scheme

Double Cropping Rice Fallow Scheme

Interest Subvention

Establishment and Strengthening of Agriculture – Laboratories

Pond Reconstruction Scheme

Jalnidhi Scheme

Mechanization of agriculture

Distribution of Pump sets

Conclusion

CHAPTER VII: FOOD SECURITY**113 - 122**

Storage and Management of Food grains

Subsidies to Public Distribution System (PDS)

Subsidies to some of the Popular Food Security Schemes

Public Distribution System (PDS)

Digitization of Ration Cards with UID seeding and verification

National Food Security Act (NFSA)

Aahar Jharkhand

Status of Ongoing Schemes

Priority Household Scheme (PHS)

Antyodaya Anna Yojana (AAY)

Annapurna Yojana (AY)

Subsidized Kerosene Oil

Godowns Construction/Renovation

Distribution of Salt for PHH/AAY

Distribution of Sugar to AAY

Mukhyamantri Dal-Bhat Yojana

Pradhanmantri Ujjawala Yojana

National Food Security Compliant Redressal

Distribution of Digital Weighing Machine to PDS Dealers

Skill Development Scheme

Consumer Welfare Fund Scheme

New Schemes

PVTG Dakiya Scheme

Concluding Remarks

CHAPTER VIII : INDUSTRY

123 - 142

Limitations on land availability for industrial purpose

Lack of Industrial infrastructure

Employment generation support

Sectoral Share of Industries

Sectoral Shares in GSDP

Annual Survey of Industries

The MSME Sector in Jharkhand

Government Initiatives

Jharkhand Industrial and Investment Promotion Policy 2016

Electronic Manufacturing Cluster

EMC at Adityapur: Location Advantages

Ready Market for Auto Electronic Components Manufacturing

Skilled Manpower

Upcoming Industrial Park – Mega Projects

Broad Parameters of EMC Projects

Industrial Plots

Flatted Factories

GoI Incentives under M-SIPS for ESDM units

Preferential Market Access (PMA)

Export Incentives

Improving the Business Eco-System

Development of Industrial Infrastructure

Development of MSME Sector

Thrust Areas

Jharkhand Textile, Apparel and Footwear Policy 2016

Textile and Apparel Sector in Jharkhand

Development of Handloom

Development of Sericulture

Mega Handloom Cluster

Textile and Apparel Parks

Vision and Objectives of the Jharkhand Textile, Apparel and Footwear Policy 2016

Objectives

Capacity Building

National Institute of Fashion Technology (NIFT)

Footwear Design and Development Institute (FDDI)

Jharkhand Institute of Craft and Design (JICD)

Skill Development

Jharkhand Skill Development Mission Society (JSDMS)

Strengthening of Seed Sector

Incubation Centres

Centre of Excellence for Textile/Technical Textiles

Entrepreneurship Development Program (EDP)

Sericulture Development

Post Cocoon Reeling & Spinning

Jharkhand Food Processing Industry Policy 2015

Jharkhand Feed Processing Industry Policy 2015

CHAPTER IX: INFRASTRUCTURE AND COMMUNICATION**143 - 164**

Development of the Core Capital City, Jharkhand

Present Status of Development

Planning of Core Capital City

Road Connectivity

Disadvantages/Inequalities

Road Density

Objectives to be achieved

Challenges

Human Resource Development (HRD) & Building

Quality Assurance System

State Highways Authority of Jharkhand (SHAJ)

Revenue Budget

Rural Road Connectivity

Road Density

Existing Road

Quality Assurance System & Strengthening of PIU and JSRRDA

Energy

Electricity Demand & Supply Position

New Initiatives

New Transmission lines and updates on the existing

Electrification of Villages and free electricity connections to BPL

Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY)

Initiatives to be taken under Jharkhand Bijli Vitran Nigam Limited (JBVNL) during the Financial Year 2017-18

State and Central Level Schemes

Renewable Energy

Solar Photovoltaic (PV) Programme

Government Buildings

Electricity Consumers (Non-Government)

Off-Grid Solar PV Program

Rural Electrification Program

Solar Study Lamp

Solar Street Lighting System (LED Based)

Solar Pump Set

LED based High Mast Lights at Public places and Govt. Campuses

Solar Power Packs

Solar Thermal

Transportation

Railways

Civil Aviation

Development of Baliapur (Dhanbad) Airport

Development of Deoghar Airport

Development of Chiyanki (Daltonganj) Airport: Project Background and present status

Establishment of Gliding centres at Giridih and Dhanbad (Barwadda) Airports

IT & Communications

IT Based Infrastructure

JHARNET

Objective of the Project

Current Status

Pragya Kendras

Status of NOFN (BharatNet)

Payment Gateway Status

CHAPTER X: LABOUR AND EMPLOYMENT**165 - 182**

Introduction

Labour Market Outcome in Jharkhand

Labour Force Participation in Jharkhand

Worker Population Ratio

Unemployment Scenario: Certain Challenges

How does Jharkhand Stand relative to other states in India?

Role of SGDP growth in the creation of man-days in Jharkhand

How people benefited from the employment generating schemes?

Overseas Employment

Employment Exchange

Recruitment camps and job fairs

Time to reap the demographic dividend

Jharkhand Skill Development Policy- 2018 (To be added)

Skill Development- State Action Plan

Promotion of Entrepreneurship in Jharkhand

The Action plan for 2021 in promotion of Entrepreneurship include

Conclusion

CHAPTER XI : EDUCATION**183 - 204**

An overview of Enrolment of Students in Jharkhand

Status of Enrolment-Based Indicators in Jharkhand

Gross Enrolment Ratio (GER)¹ and Net Enrolment Ratio (NER)²

GER among Scheduled Tribes (ST) and Scheduled Castes (SC)

District wise Trend in GER

Gender Parity Index (GPI)

Drop-out, Promotion and Repetition

Educational Infrastructure

Number of Schools

Schools by number of students and Schools with number of Teachers

School Mergers in Jharkhand

The Outcome of School Reorganisation

Plan for further Reorganisation and consolidation

School Facilities

The Teachers

Pupil Teacher Ratio

Quality of Education

Government Vision to Enhance Quality of Education in Jharkhand

New Initiatives by the Government of Jharkhand

Initiatives to Achieve Full Literacy in Jharkhand

State Plans to Improve Educational Outcome

Initiatives to Increase Girls Education

Higher Education Jharkhand

Pupil-Teacher Ratio in Higher Education

Number of Colleges and Average Enrolment

Hostel Facilities for Higher Education Students

State Action Plans to Enhance Higher Education

Vocational Education

Conclusion

CHAPTER XII : HEALTH

205 - 228

Status of Health and Nutrition in Jharkhand

Malnutrition

Mortality

Fertility Rate

Coverage of health facilities

Maternal Health

Antenatal Care

Child Health

Family Planning

Communicable & Non-Communicable Diseases

HIV or AIDS

Action Plan 2021

TB

Malaria

Non-communicable Diseases (NCDs)

Healthcare Financing: Ayushman Bharat- Pradhanmantri Jan Aarogya Yojana

The Health Infrastructure

National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease & Stroke

Super Specialty Hospitals

Human Resources for Health Services

Medical Education

Conclusion

CHAPTER XIII : DRINKING WATER AND SANITATION**229 - 236**

Drinking Water in Jharkhand

Rural Drinking Water

Full and Partial coverage of Population by Rural Pipe Drinking Water Supply Scheme

District-wise Full and Partial coverage of Habitations by Rural Pipe Drinking Water Supply Scheme

Coverage Status for Special category habitations

No. of Schemes and Expenditure

Ongoing Schemes of Drinking Water

Quality of Drinking in Jharkhand

Contamination and major contaminants

Lab Testing and Water Treatment Measures

Sanitation in Jharkhand

Rural Sanitation – Swachh Bharat Mission (Gramin)

ODF Verification Process adopted in Jharkhand

Key objectives of the verification are:-

Urban Sanitation: Swachh Bharat Mission (Urban)

Conclusion

CHAPTER XIV : WOMEN, CHILD DEVELOPMENT AND SOCIAL SECURITY**237 - 250**

Schemes implemented for welfare of women

Women Helpline Scheme

National Creche Scheme

Pradhan Mantri Matri Vandana Yojana

Swadhar Grih Scheme

State Resource Centre for Women

Mukhyamantri Kanyadan Yojana

Eradication of the practice of witch hunting

Additional honorarium to Anganwadi workers/Anganwadi Helpers

Ujjawal Scheme

Tejaswini Yojana

Mahila Shakti Kendra (MSK)

Schemes implemented for Child Welfare

Beti Bachao Beti Padhao (BBBP)

Activities under Beti Bachao Beti Padhao

Integrated Child Development Services (ICDS)

Pre-School Kits (PSE)

Information, Education & Communication

Medicine Kits

Supplementary Nutrition Program (Pregnant & Lactating Women & Children)

Mukhyamantri Laxmi Ladli Yojana

Scheme for Adolescent girls (SAG) – [Erstwhile known as the Empowerment of Adolescent girls (RGSEAG)-SABLA]

Integrated Child Protection Services (ICPS)

Schemes for the Welfare of the Disabled and Social Security of its citizens

Welfare for disabled persons

State Fund for Disabled

Scholarship to Disabled students

Special equipment for the Divyang students

District Disability Rehabilitation Centre (DDRC)

Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana (SVNSPY)

Establishment of the office of the Disability Commissioner

Schemes implemented for Social Security

National Family Benefit scheme

Indira Gandhi National Old Age Pension scheme (IGNOAPS)

Indira Gandhi National Disability Pension scheme

Indira Gandhi National Widow Pension scheme

State Social Security Pension scheme

Adim Jan Jati (primitive tribes) Pension scheme (AJJPY)

Rajiv Vidhwa Samman Pension Yojana (RVSPY)

State Pension scheme for HIV/AIDS affected persons/Immune-Deficiency Pension Scheme

Conclusion

CHAPTER XV : TRIBAL WELFARE AND INTERVENTIONS FOR THE UNDERPRIVILEGED 251 - 264

The Social Composition of Jharkhand

Scheduled Cast and Minority Communities

Other Forms of Deprivation

The Deprivation of the STs and SCs

Income Distribution

Housing

Literacy

Educational Status of SCs/STs

Schemes Launched By Department of Schedule Tribe, Schedule Cast, Minority And Backward Class Welfare

Education

E-Learning Programme/Setting Science Laboratory & Library

Pre-Matric Scholarship

Post-Matric Scholarship

Merit cum Means Scholarship

Reimbursement of Examination Fee

Cycle Distribution Scheme

Preservation and Protection of Tribal Culture

Health

Medical Aid

Pahariya Health Scheme

Safe & Adequate Drinking Water Facility

Rural Hospital

Key services of rural hospitals

Housing

Birsa Awas Yojna

Shaheed Gram Vikas Yojana

Major components of the Scheme

Livelihood Security

Skill Development

Jharkhand Tribal Empowerment & Livelihoods Project (JTELP)

Community Empowerment

Integrated Natural Resource Management

Livelihood Development

Poverty Reduction

Targeting the Hardcore Poor Project

Outcomes Envisaged under THP Project

Achievements of THP till 31st July 2018

Residential Schools

Minority Community and Haz Pilgrimage

Initiatives in Domains of Sports

Conclusion

CHAPTER XVI : NATURAL RESOURCES : FOREST, WATER AND MINERAL RESOURCES 265 - 288

Forest Resources of Jharkhand

Forest Products in Jharkhand

Forest Conservation Schemes and Programme of the Government

Mukhyamantri Jan Van Yojana

Compensatory Forest

Nandi Mahotsav and Vrihat Vrikchharopan Abhiyan

Biodiversity and Wild Life

Palamau Tiger Reserve

Singhbhum Elephant Reserve

Crocodile Breeding Centre

Mineral Resources

New Initiatives Programme

Water Resources of Jharkhand

Flood Control Program

State Links and Present Status/Targets for Completion of Per Feasibility Test (PFRs)

Interstate Issues

New Initiatives for the Development of Surface Water

Ground Water

Conclusion

CHAPTER XVII : TOURISM, ARTS, CULTURE, SPORTS AND YOUTH AFFAIRS

289 - 302

New Schemes taken up during the past year

Development of Eco Tourism Circuit in Jharkhand – Swadesh Darshan Scheme of Ministry of Tourism, GOI

Development of Deoghar under PRASAD schemes in Jharkhand

The development of Rajrappa Temple Precinct

Development of Basukinath in Jharkhand under Phase II of PRASAD Scheme

Development of Rural Tourism Circuit in Jharkhand

Development of Parasnath Hill

Development of Chandil Dam

Eco Tourism

Eco-tourism-A Conservation Centric Activity

Eco-tourism-Community Based Activity

Capacity Building

Environmental Awareness

Wild Life Tourism

Eco-sensitive Zones

Wetlands

Nature Campus

Trekking and Nature Walks

Wildlife Viewing and River/Reservoir Cruise

Adventure Sports

Herbal Eco-tourism

Nature Interpretation Centres

Tree Plantation

Conservation Education
Spiritual/Religious Tourism
Rural Tourism
Mining Tourism
Schemes of the State government
Tourism Publicity
Consultancy, Security and other Services
Wayside Amenities
Training and Skill Development
Using IT Facilities
New Tourism Information Centre (TIC)
Involving SHGs, NGOs for Maintenance and Management of Tourism Destination
Up-gradation of hotels, tourist complex, TIC and tourist spots
Land Acquisition/Purchase/Transfer for Developing Tourist Spots
Incentives Under State Tourism Policy
ARTS & CULTURE
Culture Welfare Scheme and culture publication
Organization of Cultural Programmes
Cultural Grants in Aid
Guru Shishya Parampara: Reviving the rare art form of Jharkhand
Regional and Tribal Language and Cultural Growth Centre
Development of the Museums and Cultural Awareness
Archaeological Activities and Schemes
Construction of Cultural Building
Construction of Museum Building
Establishment of Pottery Board
Regional Language and Cultural Growth Centre
Constitution of State Level Lalit Kala, Music Drama & Sahitya Kala Academy
Fine Art College
Creation of I.T. Applications
Creation of Culture Corpus Fund
SPORTS AND YOUTH AFFAIRS
Sports University
Sports Academies
Steps Initiated towards Development

STATISTICAL APPENDICES

i - xxxviii

List of Tables, Figures, Boxes, Maps and Appendices

List of Tables

CHAPTER I : MACRO-ECONOMIC OVERVIEW

- Table 1.1: GSVA, GSDP, NSDP and Per Capita GSDP at current and constant prices
- Table 1.2: Growth in GSVA, GSDP, NSDP and Per GSDP at constant and current prices
- Table 1.3: Sectoral Growth rate on Y-o-Y in 2017-18 and 2018-19
- Table 1.4: Sectoral Contribution to Growth Rate & their Share in GSVA in the year 2018-19
- Table 1.5: Share of the major sectors in the GSVA of the state
- Table 1.6: Value of the output of Agriculture, forestry & fishing sector and constituents
- Table 1.7: Value of output of Industrial sector at constant prices
- Table 1.8: Value of output of the Tertiary sector and its sub-sectors at constant prices
- Table 1.9: Progress in Other Developmental Indicators
- Table 1.10: The infant and child mortality rate in Jharkhand
- Table 1.11: Performance in Indicators of Family Planning
- Table 1.12: Percentage of Population living in Multidimensional Poverty
- Table 1.13: Inter District Disparity in Multi-dimensional Poverty
- Table 1.14: Inter District Disparity in Development

CHAPTER II : FISCAL DEVELOPMENT AND STATE FINANCES

- Table 2.1: Total Receipt and Total Expenditure in Rs. Crore & as a percentage of GSDP
- Table 2.2: Total Expenditure and its Constituents
- Table 2.3: The Revenue and Capital Receipts of the Government
- Table 2.4: The Revenue Receipts of the Government
- Table 2.5: Revenue collection from GST and GST & CST compensation
- Table 2.6: The Growth Rate of Non-Tax Revenue
- Table 2.7: Debt Sustainability and Debt as a percentage of GSDP
- Table 2.8: Year Wise Debt Position of Jharkhand
- Table 2.9: Deficit position of Jharkhand (2011-12 to 2016-17 in ₹ crore)

CHAPTER III : INSTITUTIONAL FINANCE

- Table 3.1: Banks-their Branches and ATMs in Jharkhand
- Table 3.2: Quarterly Performance of Banking Sector in Jharkhand
- Table 3.3: Sector-wise Status of Loans and Advances (as on 31st March) (Amount in Laacs)
- Table 3.4: Sector-wise Achievement under Annual Credit Plan (as on 30 June 2018 in Rs Crores)
- Table 3.5: Bank Category-wise Status of KCC in Jharkhand (Amount in Crores)
- Table 3.6: Financing to Micro & Small Enterprises (MSE) (Priority Sector)
- Table 3.7: Coverage under CGTMSE (For eligible loans upto Rs 2.00 crore in MSE) (Position as on 30.06.17) (A/C in 000, Amt in Crore)

Table 3.8a: Total Education Loan (Amount in Rs. Crores)

Table 3.8b: Total Education Loan to ST/SC up to 7.50 lakhs

Table 3.9 : Housing Loan (Amount in Rs. Crores)

Table 3.10: Achievements of Jharkhand under PMMY (Amount in Crores)

Table 3.11: Jharkhand's Achievement in stand up India Programme (Till 30.03.2018)

Table 3.12: National Rural Livelihood Mission- Jharkhand's Achievement (Till 30.06.2018)

CHAPTER IV: RURAL DEVELOPMENT AND PANCHAYATI RAJ

Table 4.1: Basic Profile of PRIs

Table 4.2: Major Quantitative Outcome of GSDP

Table 4.3: Schemes Audited by the Social Audit Unit

Table 4.4: Cumulative Coverage

Table 4.5: Progress of MGNREGA in Jharkhand

Table 4.6: Details of estimated earnings from one acre land (In Rs.)

Table 4.7: Progress of BMBY

Table 4.8: Physical Progress on Micro Irrigation under PMKSY in Jharkhand

Table 4.9: Financial Progress of Micro Irrigation under PMKSY in Jharkhand

Table 4.10: Physical Progress of PMAY-G

Table 4.11: State Sponsored Schemes

Table 4.12: Pradhan Mantri Sadak Yojana (PMGSY)

Table 4.13: Details for the current Financial year 2018-19

CHAPTER V: URBAN DEVELOPMENT

Table 5.1: Types of Urban Centres and Share of Urban Population

Table 5.2: Distribution of Urban Population in Jharkhand by Town Size in 2001 & 2011

Table 5.3: Distribution of Living Status of Urban Population of India and Jharkhand

Table 5.4: People living in Slums in the Urban areas of India and Jharkhand

Table 5.5: Distribution of the Slum Population in Jharkhand (in %)

Table 5.6: Periodicity of Wage earners among the Urban Population of India and Jharkhand

Table 5.7: Distribution of Urban Population of Jharkhand by Main Source of Income

Table 5.8: Urban Population in Jharkhand according to the Level of Education (in %)

Table 5.9: Distribution of Urban Amenities and Facilities in Jharkhand

Table 5.10: Total Costs INR Crore

Table 5.11: Financial Time Line of the Smart City Ranchi

Table 5.12: Sector-Wise Break Up of Consolidated Investment for All AMRUT ULBs in the State of Jharkhand for the Mission Period 2015-16 to 2019-20

Table 5.13: Score of Jharkhand in Swachh Survekshan 2018

Table 5.14: Status of Cities of Jharkhand in Swachh Survekshan 2018

Table 5.15: Status of Project of Namami Gange

Table 5.16: Project Sanctioned under PMAY (U)

Table 5.17: Status of Beneficiary – Led Individual House Construction

CHAPTER VI: AGRICULTURE AND ALLIED ACTIVITIES

Table 6.1: Share of Agriculture Sector in Gross State Value Added (GSVA) at Constant Prices (2011-12 series)

Table 6.2: State Agriculture Profile

Table 6.3: Area, Production, and Yield of Kharif Crops 2015-16 to 2017-18 (Area in 000 hec, Production-000 MT, Yield -Kg/hec)

Table 6.4: Compound Annual Growth Rate of Kharif Crops between 15-16 and 17-18

Table 6.5: Area, Production, and Yield of Rabi Crops 2015-16 to 2017-18 (Area in 000 hec, Production-000 MT, Yield -Kg/hec)

Table 6.6: Compound Annual Growth Rate of Rabi Crops between 15-16 and 17-18

Table 6.7: Crop-wise Area, production, and yield of total pulses, oilseeds, and cereals (Area in 000 hectares, Production-000 MT, Yield -Kg/ hectares)

Table 6.8: Compound Annual Growth Rate of Pulses, Cereals, Oilseeds and Production between 15-16 and 17-18

Table 6.9: District wise variation in productivity of food grains

Table 6.10: Requirement and consumption of fertilizer in Jharkhand in the year 17-18 (in tonnes)

Table 6.11: Area and production of different varieties of fruit crops (Area in '000' ha & Production in '000' MT)

Table 6.12: The area and production of the different varieties of vegetables in Jharkhand (Area in '000' ha & Production in '000' MT)

Table 6.13: Production of Milk, Egg & Meat in Jharkhand from 08-09 to 17-18 (Thousand MT)

Table 6.14: Fish Production, Fish seeds Growers & Fish seeds Production from 08-09 to 17-18

CHAPTER VII : FOOD SECURITY

Table 7.1: District wise Current Stock Status of Depot. (As of 24-12-18)

Table 7.2: Amount of Subsidy for Public Distribution System (PDS) in Rs. Lakhs

CHAPTER VIII : INDUSTRY

Table 8.1: Sectoral Contribution to Growth Rate & their Share in GSVA in the year 2018-19

Table 8.2: Top Performers with respect to ASI data analysis 2013-14 and 2015-16: All India

Table 8.3: Selected Indicators of Jharkhand's Industries according to ASI data

Table 8.4: Investment in Micro, Small and medium Enterprises Year wise Investment & Employment in MSMEs

Table 8.5: Year wise Progress in PMEGP

Table 8.6: Achievement under PMEGP (2016-17)

Table 8.7: Achievements in subsidy under JIIP 2016

Table 8.8: New Industries established under new industrial policy (Jharkhand Industrial & Investment promotion Policy-2016)

Table 8.9: Industrial units established in Industrial Areas

Table 8.10: Status of Industrial Areas

CHAPTER IX: INFRASTRUCTURE AND COMMUNICATION

- Table 9.1: Major requirements of Core Capital City
- Table 9.2: Road length under various categories
- Table 9.3: Road density: a comparison
- Table 9.4: Road transferred to RCD for development and increase of density
- Table 9.5: Proposed Road Construction Plan
- Table 9.6: Peak Demand and Peak Availability with Shortage (in MW)
- Table 9.7: Energy Availability, Requirement and Shortage (in MU)
- Table 9.8: Installed Capacity (MW) of Power Utilities in Jharkhand
- Table 9.9: Anticipated Month wise Power Supply Position in Jharkhand for the year 2018-19
- Table 9.10: Status of DDUGJY New Scheme (till 07.01.2019)
- Table 9.11: Status of DDUGJY 12th Plan
- Table 9.12: Jharkhand Renewable Energy Highlights with installed capacities at a Glance
- Table 9.13: Connectivity Railways
- Table 9.14: Infrastructure Skill Development Schemes
- Table 9.15: Rural and Urban CSC Rollouts Status in Jharkhand
- Table 9.16: CSC Projects in Jharkhand. (2015-16 to 2018-19)
- Table 9.17: Status of Bharatnet Project

CHAPTER X: LABOUR AND EMPLOYMENT

- Table 10.1: Gender Distribution of LPFR in Jharkhand and All India
- Table 10.2: LPFR for Transgender Community in Jharkhand and All India
- Table 10.3: Gender Distribution of WPR in Jharkhand and All India
- Table 10.4: Unemployment Rate for Transgender-Community in Jharkhand and All India
- Table 10.5: Ranking of Indian states and union territories- LFPR
- Table 10.6: Ranking of Indian states and union territories- WPR
- Table 10.7: Ranking of Indian states and union territories - UR
- Table 10.8: Per 1000 distribution of households benefited from employment generating schemes (rural and urban)
- Table 10.9: Per 1000 distribution of households benefited from employment generating schemes (rural and urban) for the Scheduled Cast Population
- Table 10.10: Per 1000 distribution of households benefited from employment generating schemes (rural and urban) for the Scheduled Tribe Population
- Table 10.11: Per 1000 distribution of households which benefited from employment generating schemes (rural and urban) for the OBC Population
- Table 10.12: NCS portal Indicators during 2017-18
- Table 10.13: NCS Job Posting Indicators during 2017-18
- Table 10.14: Genderwise Registration in NCS during 2017-18
- Table 10.15: Agegroup wise Jobseekers' Registration in NCS during 2017-18

Table 10.16: Educational Qualification of the Job seekers' Registration in NCS during 2017-18

Table 10.17: Employment Status of the Jeekers' Registration in NCS during 2017-18

Table 10.18: Employer's Information in NCS during 2017-18

Table 10.19: Job posting details at the NCS during 2017-18

Table 10.20: Sectoral Job posting in NCS during 2017-18

Table 10.21: Number of Recruitment Camps organized during recent years

Table 10.22: Number of Selection through Recruitment Camps

Table 10.23: District-wise Selection during Employment Fairs

Table 10.24: Selected no. of applicants through RojgarMela in Jharkhand during recent years

Table 10.25: Targets for the promotion of Entrepreneurship

CHAPTER XI : EDUCATION

Table 11.1: Enrolment in Elementary Section

Table 11.2: Enrolment in Classes VIII- XII

Table 11.3: Grade wise Enrolment of Students with Special needs

Table 11.4: GER and NER (All category) at different Educational Levels (2017-18)

Table 11.5: GER among ST and SC at different Educational Levels (2017-18)

Table 11.6: Dropout, Promotion and Repetition Rates in Jharkhand

Table 11.7: Distribution of Schools in Jharkhand and All India

Table 11.8: Number of Schools per lakh population in 2017-18

Table 11.9: Schools by Number of students

Table 11.10: Schools by Number of teachers

Table 11.11: Number of Schools before and after Mergers

Table 11.12: School Conditions in Jharkhand and All India

Table 11.13: Student Class Room Ratio

Table 11.14: Availability of basic facilities in Private and Government (DOE) Schools

Table 11.15: Availability of Other facilities in Private and Government (DOE) Schools

Table 11.16: Percentage of Schools having Laboratories—Jharkhand and All India

Table 11.17: Pupil Teacher Ratio

Table 11.18: Distribution of youth by age and enrolment status 2017

Table 11.19: Youth by enrolment status, years of schooling completed, and gender

Table 11.20: Youth who worked for 15 or more days in the last month, excluding household work

Table 11.21: Digital use by youth age 14-18, by gender (% youth)

Table 11.22: Financial Knowledge of youth age 14-18, by gender (% youth)

Table 11.23: Youth at different learning levels

Table 11.24: Percentage of youth who can do daily tasks, by gender

Table 11.25: Percentage of youth who can do common calculations, by gender

Table 11.26: Percentage of youth who can read and understand written instructions

Table 11.27: Percentage of youth who can do map and general knowledge task

Table 11.28: Percentage of youth who can do financial calculations, by gender

Table 11.29: Distribution of Universities in Jharkhand

Table 11.30: Gross Enrolment Ratio in Higher Education (18-23 Years)

Table 11.31: Pupil-Teacher Ratio in Higher Education

Table 11.32: No of Colleges per lakh population and Average Enrolment per College

Table 11.33: Hostel Facilities for Higher Education Students

CHAPTER XII: HEALTH

Table 12.1: Malnutrition in Jharkhand and India in 2005-06 and 2015-16

Table 12.2: Infant and maternal mortality rate in Jharkhand

Table 12.3: Selected Health Indicators for Jharkhand

Table 12.4: Percentage Pregnant Women Received ANC to Total ANC Registrations

Table 12.5: Percentage of Institutional Deliveries

Table 12.6: Percentage of Safe Deliveries and Live Births

Table 12.7: Percentage Infant Breastfed within 1 hour of Birth to Total Live Births

Table 12.8: Total Number of Sterilizations Conducted

Table 12.9: Percentages of Male and Female Sterilizations Conducted in respect to Total Sterilizations

Table 12.10: Vector-Borne Diseases

Table 12.11: Other Communicable Diseases

Table 12.12: TB Notification from the public and private sectors and Treatment Outcome

Table 12.13: Leprosy Case Detection, Treatment, and Discharge during FY 2017-18 (till December 2017)

Table 12.14: Lab Confirmed Cases and Deaths of Influenza A H1N1 (Swine Flu)

Table 12.15: Percentage of HIV Positive Males and Females

Table 12.16: Observed HIV Prevalence Levels among ANC clinic attendees

Table 12.17: General Clients counseled and tested for HIV and Sero-positivity detected during the FY 2017-18 (till December 2017)

Table 12.18: Prevention of Parent to Child Transmission of HIV/AIDS (PPTCT) Programme during FY 2017-18 (till December 2017)

Table 12.19: Non-Communicable Diseases from January-December, 2017

Table 12.20: Pradhan Mantri Jan Arogya Yojana or Ayushman Bharat

Table 12.21: Existing Health Infrastructure

Table 12.22: Shortfall in Health Infrastructure in Jharkhand

Table 12.23: Target for Healthcare Infrastructure

Table 12.24: Target for medical education

CHAPTER XIII: DRINKING WATER AND SANITATION

- Table 13.1: Coverage Status of Piped Water Supply (in %)
- Table 13.2: Population covered by Rural Pipe Drinking Water Supply Scheme in Jharkhand (55 LPCD)
- Table 13.3: Coverage of Rural Habitation with respect to the Drinking Water Supply across districts in % (as on 30th Dec. 2018)
- Table 13.4: Coverage Status for special category habitations (as on 30th Dec. 2018)
- Table 13.5: No. of Schemes and Total Expenditure on Drinking Water which includes PWS and others (in Rs. lakhs)
- Table 13.6: Ongoing Schemes (All) as on 30/12/2018
- Table 13.7: No. of Quality Affected Habitations & Population As On 04/01/2019 (Contamination Wise Number of Habitations & Population)
- Table 13.8: Laboratory Information regarding Testing Reported in 2018-2019
- Table 13.9: Testing of Sources in Habitations (as on 31-12-2018)
- Table 13.10: Total No. of Household Toilet Constructed (during 2014-15 and 2017-18)
- Table 13.11: Status of Urban Sanitation (as on 7th January 2018)

CHAPTER XIV : WOMEN, CHILD DEVELOPMENT AND SOCIAL SECURITY

- Table 14.1: Centrally sponsored schemes in Jharkhand
- Table 14.2: Schemes sponsored jointly by the Centre and the State in Jharkhand
- Table 14.3: State sponsored schemes in Jharkhand
- Table 14.4: One Stop Centre in Jharkhand
- Table 14.5: Progress under Tejaswini project in Dumka and Ramgarh districts
- Table 14.6: Child Protection Schemes
- Table 14.7: The Progress of ICPS in Jharkhand
- Table 14.8: Funding Pattern of schemes of Social Security

CHAPTER XV: TRIBAL WELFARE AND INTERVENTIONS FOR THE UNDERPRIVILEGED

- Table 15.1: Inter District Concentration of Scheduled Tribes in Jharkhand
- Table 15.2: Inter District Concentration of Scheduled Castes in Jharkhand
- Table 15.3: Inter District Concentration of Minority in Jharkhand
- Table 15.4: Percentage of people with disability in India and Jharkhand
- Table 15.5: Percentage of SC and ST households with no literate adults above 25 years of age
- Table 15.6: Status of Pre-Metric scholarship
- Table 15.7: Status of Post-Metric scholarship
- Table 15.8: Details of students benefitted under Cycle Distribution Scheme
- Table 15.9: Status of Existing rural hospitals
- Table 15.10: Status of Birsa Awas Yojana
- Table 15.11: Status of Sahid Gram Vikas Yojana
- Table 15.12: Details of Youth Skilled & Placed as of 27th November 2018

Table 15.13 Status of JTELP

Table 15.14: Programme Implementation Framework of THP in Jharkhand

Table 15.15: Growth of assets distributed under THP project till date

Table 15.16: Details of functional EMRS and Ashram in Jharkhand

CHAPTER XVI: NATURAL RESOURCES: FOREST, WATER AND MINERAL RESOURCES

Table 16.1: Distribution of Forest in Jharkhand in 2017

Table 16.2: District– wise Distribution of Forest Cover in Jharkhand in 2017 (area in square kilometre)

Table 16.3: List of some MFP Produce Available in Jharkhand

Table 16.4: Report for JAN VAN YOJNA for the Financial Year 2018-19

Table 16.5: Summary of CAMPA funds financial year 2017-18 (All amounts in Lakh)

Table 16.6: Number of Plants Planted in 2018 across the Forest Division of the State

Table 16.7: District wise Mineral Revenue Collection (upto Dec. '18 in 2018-'19)

Table 16.8: Status of Coal Resources of Jharkhand (in Million tons) (as on 30.09.2017)

Table 16.9: State wise and Source Installed wise Capacity of Grid Interactive Renewable Power as on 31.03.2016 and 30.03.2017 (in MW)

Table 16.10: Present Scenario of Ground Water and Surface Water in Jharkhand

Table 16.11: Utilization of Surface Water Resources in Jharkhand

Table 16.12: Ultimate Irrigation Potential in Rivers of Jharkhand

Table 16.13: District-wise Annual Replenishable Ground Water Resource in 2013

Table 16.14: District-wise Availability of Ground Water in Jharkhand in 2013

CHAPTER XVII: TOURISM, ARTS, CULTURE, SPORTS AND YOUTH AFFAIRS

Table 17.1: Year Wise Tourist Inflow in Jharkhand

Table 17.2: Monthly Tourism Statistics for the year 2017

List of Figures

Figure 1.1: GSDP at constant & current prices

Figure 1.2: Growth rate of GSDP at constant & current prices

Figure 1.3: Per capita GSDP at constant & current prices

Figure 1.4: Growth rate of Per capita GSDP at constant & current prices

Figure 1.5: Share of the value of output of the constituents of Agriculture, Forestry and Fishing sector in its total output

Figure 1.6: Share of the sub-sectors in industrial output

Figure 1.7: Share of the sub sectors in the output of Tertiary Sector

Figure 1.8: Rate of Inflation in Jharkhand

Figure 2.1: Rate of Growth of Total Expenditure & Total Expenditure as a percentage of GSDP

Figure 2.2: Growth in Expenditure on Establishment and Plan/Schemes

- Figure 2.3: Composition of Expenditure into Establishment and Plan/Schemes
- Figure 2.4: Composition of Establishment Expenditure
- Figure 2.5: Growth rate Establishment Expenditure of Revenue and Capital Account
- Figure 2.6: Composition of Establishment Expenditure (Revenue Account)
- Figure 2.7: Growth in the components of Establishment Expenditure (Revenue Account)
- Figure 2.8: The share of revenue and capital receipts in total receipt of Jharkhand
- Figure 2.9: Growth in the Revenue and Capital Receipts in Jharkhand
- Figure 2.10: Composition of Tax revenue
- Figure 2.11: Growth in Revenue from State's Own Taxes & State's Share in Central Taxes
- Figure 2.12: Composition of Own Sources of Tax revenue
- Figure 2.13: Growth in the own sources of Tax revenue
- Figure 2.14: The Composition of Non-Tax Revenue
- Figure 2.15: The Growth Rate of Non-Tax Revenue
- Figure 2.16: The contribution of sources of non-tax revenue to the additional resource mobilised by it in the year 2017-18 in comparison to 2014-15
- Figure 2.17: Growth in Grants in Aids from Government of India
- Figure 2.18: Share of Centre and State in the total Revenue Receipts of the State
- Figure 2.19: The Total Receipts and their Components as a percentage of GSDP
- Figure 2.20: Components of Gross Borrowing (in percentage)
- Figure 2.21: The trend in Revenue, Fiscal and Primary Deficit as a percentage of GSDP
- Figure 3.1: Ratio of Bank Branch/ATM to per lakh Population
- Figure 3.2: Ratios of Deposit to GSDP, Credit to GSDP and Credit to Deposit (in%)
- Figure 3.3: Bank Category-wise Trend in C-D Ratio (in %)
- Figure 3.4: Percentage of Gross NPA (in %)
- Figure 3.5a: Sectoral Composition of NPAs as on 31st March 2017 (in %)
- Figure 3.5b: Sectoral Composition of NPAs as on 31st March 2018 (in %)
- Figure 3.6: Share of credit to Micro Enterprises in Total Credit to MSE Sector (in %)
- Figure 3.7a: MUDRA Loans in Jharkhand Sanction (Amount in Rs. Crores)
- Figure 3.7b: MUDRA Loans in Jharkhand in No. of ACs.
- Figure 5.1: The Percentage-distribution of Road Length across Cities and Towns of Jharkhand
- Figure 5.2: Status of Funds for the Smart City Ranchi
- Figure 6.1: Pattern of land utilization in Jharkhand
- Figure 6.2: Normal and Actual Rainfall from June - September for the year 2017 and 2018
- Figure 6.3: Area, Production and Yield of Kharif Crops 2015-16 to 2017-18 (Area in 000 hectares, Production-000 MT, Yield -Kg/hect)
- Figure 6.4: Area, Production and Yield of Rabi Crops 2015-16 to 2017-18 (Area in 000 hectares, Production-000 MT, Yield -Kg/hectares)

- Figure 6.5: Crop-wise Area, production, and yield of total pulses, oilseeds, and Cereals (Area-000 hectare, Production-000 MT, Yield -Kg/hectare)
- Figure 6.6: District wise yield rate of food grains, pulses and Cereals for the year 17-18
- Figure 6.7: District wise yield rate oilseed for the year 17-18
- Figure 6.8: Consumption of Urea, DAP and Complex Fertilize in the period 2011-12 to 2017-18.
- Figure 6.9: Total Fertilizer requirement and consumption in Jharkhand from 11-12 to 17-18 (in tons)
- Figure 6.10: The area and Production of total fruit crops in Jharkhand during 08-09 to 17-18
- Figure 6.11: Area and Production of total quantity of vegetables in Jharkhand during 08-09 to 17-18
- Figure 6.12: Production of Milk, Egg & Meat in Jharkhand from 08-09 to 17-18 (Thousand MT)
- Figure 6.13: Fish, Seed Growers, Fish & Fish seed Production from the year 12-13 to 17-18
- Figure 6.14: Growth in production of Fish, Fish seed & number of Fish Seed Growers between 12-13 & 17-18
- Figure 7.1: Procurement of paddy in quintals (till 17-04-2018)
- Figure 7.2: Total number of Depots as of 24-12-2018 (District-wise)
- Figure 7.3: Proportional Composition of the Stock of Rice, Wheat, Salt and Sugar (District-wise)
- Figure 7.4: Trend in Allocation & Expenditure of Subsidies for PDS in Rs. Lakhs
- Figure 7.5: Allocation and Utilization of Subsidies to various schemes (amount in Rs. Lakhs)
- Figure 7.6: Number of PDS Dealers (District-wise) as on Dec. 2018
- Figure 7.7: Total number of Ration Card holders (District-wise) as on 10-12-2018
- Figure 7.8: Ration Cards UID seeded and verified (District-wise) as on 10-12-2018
- Figure 7.9: District-wise details of Duplicate UID count
- Figure 8.1: Comparative Sectoral Share in GSVA of the State
- Figure 8.2: Value of output of Industrial sector at constant prices
- Figure 8.3: Indicators of Jharkhand's Industries to All-India Level
- Figure 9.1: Growth of Road length under SH, MDR & Other RCD Road
- Figure 9.2: Year Wise Length of Roads
- Figure 9.3: Year wise Length of State Highways
- Figure 9.4: Year wise Length of National Highways
- Figure 9.5: Road Density of roads under SH, MDR & Other RCD Road
- Figure 9.6: Power Availability of JBVNL
- Figure 9.7: Peak Demand and Availability (in MW) & Grow in Peak Demand and Availability (in percent)
- Figure 9.8: Energy Requirement and Availability (in MW) & Growth in Energy Requirement and Availability (in percent)
- Figure 9.9a: Power Statistics of Jharkhand (figures in percentage)
- Figure 9.9b: Per Capita Availability of Power
- Figure 9.9c: Installed Capacity of Power
- Figure 9.10: Year-wise new Railway Routes for Jharkhand

- Figure 10.1: Labour Force Participation in Jharkhand and All India for the 2013-14 and 2015-16
- Figure 10.2: Worker Population Ratio in Jharkhand and All India for the 2013-14 and 2015-16
- Figure 10.3: Gender-wise Worker Population Ratio in Jharkhand and All India in 2015-16
- Figure 10.4: Unemployment-Rate in Jharkhand and All India during 2013-14 and 2015-16
- Figure 10.5: Gender wise Unemployment Rate in Jharkhand and All India during 2013-14 and 2015-16
- Figure 10.6: Relationship between economic growth and job creation in Jharkhand
- Figure 10.7: Emigration of Labour from Jharkhand to different parts of the world
- Figure 10.8: Age Distribution of the people of Jharkhand classified as employed and unemployed
- Figure 11.1: District-wise GER at Primary Level (2017-18)
- Figure 11.2: GPI as per Age group (2017-18)
- Figure 11.3: Schools by types of Management in 2017-18
- Figure 11.4: Student Classroom (including under construction) Ratio
- Figure 11.5: Number of teachers over the years
- Figure 11.6: Youth taking vocational training
- Figure 11.7: Gross Enrolment Ratio in Higher Education (18-23 Years) over the years
- Figure 11.8: Gender Parity Index in Higher Education (18-23 Years)
- Figure 12.1: Incidence of Malnourishment in Jharkhand in 2005-06 and 2015-16
- Figure 12.2: Trends in Total Fertility Rate
- Figure 12.3: Percentage of 1st Trimester Registration to Total ANC Registration
- Figure 12.4: Trends in Maternal Mortality Ratio (MMR)
- Figure 12.5: Percentage Newborn having Weight Less than 2.5 kg to Newborns Weighted at Birth
- Figure 12.6: Prevalence of Contraception
- Figure 12.7: Different Methods of Contraception
- Figure 12.8: Contraceptive Methods that Currently Married Women Use
- Figure 13.1: Proportion of households having access to improved drinking water facility (2015-16) (%)
- Figure 13.2: Trend in No. of Toilets constructed during 2014-15 to 2017-18
- Figure 15.1: The Social Composition of Jharkhand
- Figure 15.2: The Composition Scheduled Tribes of Jharkhand
- Figure 15.3: The Composition of PVTGs of Jharkhand
- Figure 16.1: Land Use Land Classification in Jharkhand in 2015
- Figure 16.2: Mineral Revenue Collection in the State

List of Boxes

- Box 1.1: Resilient Jharkhand Economy
- Box 1.2: Multi-Dimensional Poverty Index
- Box 2.1: Royalty from Minerals
- Box 2.2: The Fourteenth Finance Commission and Finances of Jharkhand

- Box 5.1: India's Best Small City in 'Citizen Feedback' Giridih Nagar Parishad (Awarded ULBs)
- Box 5.2: India's Best State Capital/UT in 'Citizen Feedback' Ranchi Municipal Corporation
- Box 7.1: Global Agriculture and Food Summit in Jharkhand
- Box 7.2: 50 food processing plants ready for ground breaking in Jharkhand
- Box 8.1: Auto Cluster: AIADA
- Box 8.2: CREATING OPPORTUNITIES CHANGING LIVES- JHARCRAFT
- Box 8.3: National Mission on Food Processing (NMFP)
- Box 9.1: Wi-Fi Hotspot in LWE affected Areas
- Box 10.1: Major Central Government Employment Generation Schemes
- Box 11.1: Guideline for Rationalization of Small Schools
- Box 11.2: Project SATH-E
- Box 12.1: Government intervention for controlling communicable diseases
- Box 12.2: Super Specialty Hospital for respiratory disease at Itki
- Box 12.3: Establishment of Medical Colleges
- Box 13.1: NABARD approves Rs 373.27 crores for water projects in Jharkhand
- Box 13.2: Jharkhand is the best performing state in Swachh Survekshan - 2018
- Box 17.1: Jharkhand Travel Mart
- Box 17.2: Sharad Utsav: Jharkhand tourism lures adventure junkies
- Box 17.3: 5th Wild Adventure Rally, 2018
- Box 17.4: Jharkhand Eco-Tourism Authority (JETA)
- Box 17.5: Rajrappa Mahotsav 2018
- Box 17.6: Itkhori Mahotsav 2018
- Box 17.7: Sharvani Mela 2018
- Box 17.8: Chhau Mahotsav
- Box 17.9: Aadi Mahostav
- Box 17.10: Paryatan Parv 2018
- Box 17.11: Lokmanthan 2018
- Box 17.12: AirTelRan-O-Thon

List of Maps

- Map 5.1: District-wise levels of urbanization in Jharkhand, 2011
- Map 8.1: Electronic Manufacturing Cluster
- Map 9.1: Ring Road Map
- Map 9.2: Power Map of Eastern Region
- Map 16.1: District-wise Forest Cover in State in 2017

List of Appendices

- Appendix 1: Gross State Domestic Product (GSDP) of Jharkhand at current prices (2011-12)
- Appendix 2: Growth (YoY) in Gross State Domestic Product (GSDP) of Jharkhand at Current Prices (2011-12)
- Appendix 3: Gross State Domestic Product (GSDP) of Jharkhand at constant prices (2011-12)
- Appendix 4: Growth (YoY) in Gross State Domestic Product (GSDP) of Jharkhand at constant prices (2011-12)
- Appendix 5: Net State Domestic Product (NSDP) of Jharkhand at current prices (2011-12)
- Appendix 6: Growth (YoY) in Net State Domestic Product (NSDP) of Jharkhand at Current Prices (2011-12)
- Appendix 7: Net State Domestic Product (NSDP) of Jharkhand at constant prices (2011-12)
- Appendix 8: Growth (YoY) in Net State Domestic Product (NSDP) of Jharkhand at constant prices (2011-12)
- Appendix 9: Percentage Distribution of GSDP by Industry constant Prices (Based on Base Year 2011-12)
- Appendix 10: Gross State Domestic Product (GSDP) at Current Prices (2011-12)
- Appendix 11: Gross State Domestic Product (GSDP) at Constant Prices (2011-12)
- Appendix 12: Net State Domestic Product (NSDP) at Current Prices (2011-12)
- Appendix 13: Net State Domestic Product (NSDP) at Constant Prices (2011-12)
- Appendix 14: Per Capita NSDP at Current Prices (2011-12)
- Appendix 15: Per Capita NSDP at Constant Prices (2011-12)
- Appendix 16: Budget - At a Glance
- Appendix 17: Number of Teachers in 2017-18 : Dept of Education Schools (Including Jr. Colleges)
- Appendix 18: Number of Schools in the state after merger in 2017-18
- Appendix 19: Number of Residential Schools in the state in 2017-18
- Appendix 20: Samarth Residential Schools
- Appendix 21: Number of Schools : 2017-18 :Dept of Education
- Appendix 22: Number of Schools by School Category
- Appendix 23: Availability of Facilities in Dept of Education Schools only
- Appendix 24: Gross Enrolment Ratio (GER) - All Category
- Appendix 25 : NET Enrolment Ratio (NER) - All Category
- Appendix 26: Enrolment in Class I-VIII in all Management Schools
- Appendix 27: District wise Number of Ration Card Holder
- Appendix 28: Report on Plant (Forest Division)
- Appendix 29.1: Aspirational Districts Score/Delta Position as per website Report
- Appendix 29.2: Aspirational Districts Score/Delta Position as per website Report
- Appendix 29.3: Aspirational Districts Score/Delta Position as per website Report

List of Appendices

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
AAY	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
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
AHP	Affordable Housing in Partnership
AGYW	Adolescent Girl and Young Women
AIADA	Accelerate Irrigation Benefit Programme
AIBP	Aditayapur Industrial Area Development Authority
AIBP	Accelerate Irrigation Benefit Programe
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
ALIMCO	Artificial Limbs Manufacturing Corporation of India
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

Acronyms and Abbreviations	
APS	Ajeevika Pashu Sakhi
APY	Atal Pension Yojana
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
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
BEMOC	Basic Emergency Obstetric Care Training
BIADA	Barhi Industrial Area
BHQs	Block Head Quarters
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

Acronyms and Abbreviations	
BOT	Build Operate And Transfer
BPED	Bachelors in Physical Education
BPL	Below Poverty Line
BPs	Boundary Pillars
BPO	Block Project Officer
BRP	Block Resource Person
BRGF	Backward Regions Grant Fund
BSNL	Bharat Sanchar Nigam Limited
BSSPY	Bal Shramik Shiksha Protsahan Yojana
BSUP	Basic Services to Urban Poor
BTRA	Bombay Textiles Research Association
BTS	Base Transceiver Services
CA	Controlled Atmosphere
CAB	Clinical, Anthropometric and Bio-chemical
CAB-AHS	Clinical, Anthropometric and Biochemical-Annual Health Survey
CAD	Computer Aided Design
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
CCL	Central Coalfields Limited
CCSAMMN	Climate change and Sustainable Agriculture: Monitoring, Modeling and Networking
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
CFCs	Common Facility Centres
CFPS	Child Friendly Police Stations
CFS	Centre for fiscal Studies

Acronyms and Abbreviations	
CFT	Cluster Facilitation Teams
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises
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
CJs	Community Journalists
CLF	Cluster Level Federation
CMTC	Community Managed Training Centres
CMSA	Chief Minister's Social Assistance
CMSA	Community Managed Sustainable Agriculture
CNT	Chotanagpur Tenancy
CoE	Centres of Excellence
Cos	Community Organisers
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
CSO	Central Statistical Organisation
CSR	Corporate Social Responsibility
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
CWSN	Children with Special Needs (CWSN)
CZA	Central Zoo Authority
DAA	District Appropriate Authority
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

Acronyms and Abbreviations	
DBT	Direct Benefits Transfer
DC	Deputy Commissioner
DDC	Deputy Development Commissioner
DCBC	District Capacity Building Committee
DCCB	District Central Cooperative Banks
DCPS	District Child Protection Units
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana
DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
DDRC	District Disability Rehabilitation Centre
DELP	Domestic Efficient Lighting Programme
DEO	District Education Officer
DES	Directorate of Economics and Statistics
DFS	Department of Financial Services
DO	Divert Observation
DOE	Department of Education
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
DISE	District Information System for Education
DKVK	Divyayan Krishi Vigyan Kendra
DLCC	District Level Coordination Committee
DMMU	District Mission Management Unit
DMP	Disaster Management Plan
DMPA	Depot Medroxyprogesterone Acetate
DLBC	District Level Banking Committee
DLSA	District Legal Services Authority
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
DRS	Debt Restructuring Scheme
DSD	Direct Store Delivery
DSR	District Survey Report
DSS	Direct Subsidy Scheme

Acronyms and Abbreviations	
DSWWCD	Department of Social Welfare, Women and Child Development
DTR	Dynamic Thermal Rating
DVC	Damodar Valley Corporation
DWCD	Department for Women and Child Development
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
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
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
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
EWR	Elected Women Representative
FC	Fixed Capital
FC	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
FIEO	Federation of Indian Export Organisations
FIRMS	Fire Information for Resource Management System

Acronyms and Abbreviations	
FLCC	Financial Literacy and Credit Counselling
FLCs	Financial Literacy Centers
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
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
GATS	Global Adult Tobacco Survey
GCF	Gross Capital Formation
GDI	Gender Development Index
GDP	Gross Domestic Product
GEM	Gender Empowerment Measure
GER	Gross Enrolment Ratio
GHG	Green House Gases
GIS	Global Investor summit
GIS	Geographical Information System
GoI	Government of India
GoJ	Government of Jharkhand
GPDP	Gram Panchayat Development Plan
GPF	General Provident Fund
GPI	Gender Parity Index
GPS	Global Positioning System
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
HaM	Hectare-Meter
HAPIS	Horticulture Area Production Info System
HCM	Hot Cooked Meal
HDI	Human Development Index
HDR	Human Development Report

Acronyms and Abbreviations	
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
HQ	Head Quarter
HTLS	High Temperature Low Sag
HUNAR	Hallmarking of Unrecognized Novice and Amature Resources
HVA	High Value Agriculture
HYV	High Yield Varieties
HWMF	Hazardous Waste Management Facility
IAP	Integrated Action Plan
IASE	Institute for Advance Studies in Education
IAY	Indira Awas Yojna
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
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

Acronyms and Abbreviations	
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
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
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
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
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

Acronyms and Abbreviations	
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
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
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
JLG	Joint Liability Groups
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JOHAR	Jharkhand Opportunities for Harnessing Rural Growth Project
JREDA	Jharkhand Renewable Energy Development Agency
JPRA	Jharkhand Panchayati Raj Act
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
JSRP	Jharkhand State Road Project
JSSPS	Jharkhand State Sports Promotion Society
JSTDI	Jharkhand Silk Textile Development Institute

Acronyms and Abbreviations	
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
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
KM	Kilo Meter
KSY	Kishori Shakti Yojana
KVA	Kilovolt amps
KVIB	Khadi and Village Industries Board
KVIC	Khadi and Village Industries Commission
LAN	Local Area Network
LDMs	Lead District Managers
LED	Light Emitting Diode
LFPR	Labour Force Participation Rate
LHV	Lady Health Visitor
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
M.P.P	Milk Pooling Points
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

Acronyms and Abbreviations	
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
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
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
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
MODIS	Moderate Resolution Imaging Spectroradiometer
MOFPI	Ministry of Food Processing Industries
MOP	Muriate of Potash
MoMA	Ministry of Minority Affairs
MoPR	Ministry of Panchayati Raj
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
MPCE	Monthly Per Capita Consumption Expenditure
MPCY	Medhavi Putra/Putri Chatravriti Yojana

Acronyms and Abbreviations	
MPED	Masters in Physical Education
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
M-STrIPES	Monitoring System for Tiger-Intensive Protection and Ecological Status
MT	Million Tonne
MPI	Multi-dimensional Poverty Index
MTC	Malnutrition Treatment Centres
MTP	Medical Termination of Pregnancy
MUDRA	Micro Units Development and Refinance Agency
MVI	Motor Vehicles Inspector
MVY	Mukhyamantri Vidyalakshmi Yojana
MW	
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
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

Acronyms and Abbreviations	
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
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
NMFP	National Mission on Food Processing
NMFP	National Mission on Food Processing
NMMU	Nelson Mandela Metropolitan University
NMP	National Manufacturing Policy
NMR	Neonatal Mortality Rate
NOFN	National Optical Fiber Network
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
NPS	Non Priority Sector
NRDP	National Drinking Water Programme
NRDWP	National Rural Drinking Water Programme
NREP	National Rural Employment Programme
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NRLP	National Rural Livelihoods Project
NRM	National Resource Management)
NRO	National Resource Organizations
NRSC	National Remote Sensing Centre
NSA	Net Sown Area
NSAP	National Social Assistant Program
NSF	National Sports Federation

Acronyms and Abbreviations	
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
NWDPRA	National Watershed Development Programme for Rain fed Areas
OBC	Other Backward Classes
ODF	Open Defecation Free
OF	Open Forest
OFC	Optical Fibre Cable
OFWM	On Farm Water Management
O&M	Operation and Maintenance
OPHDI	Oxford Poverty and Human Development Initiative
OSC	One Stop Centre
OSP	Office of Strategy & Planning
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
PESA	Panchayat Extension to Scheduled Areas
PFC	Power Finance Corporation

Acronyms and Abbreviations	
PFP	Patanjali Food Park
PFR	Pre Feasibility Report
PFCCCL	Power Finance Corporation Consulting Limited
PGCIL	Power Grid Cooperation of India Limited
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
PMA	Preferential Market Access
PMAY	Pradhan Mantri Awas Yojana
PMAY-G	Pradhan Mantri Awas Yojna- Gramin
PMEGP	Prime Minister Employment Generation Programme
PMEYSA	Panchayat Mahila Evam Yuva Shakti Abhiyan
PMGSY	Pradhan Mantri Gram Sadak Yojna
PMJDY	Pradhan Mantri Jan-Dhan Yojana
PMJJBY	Pradhan Mantri Jeevan Jyoti Yojana
PMKSY	Pradhan Mantri Krishi Sichai Yojana
PMMY	Pradhan Mantri Mudra Yojana
PMRY	Prime Minister Rozgar Yogna
PMSBY	Pradhan Mantri Suraksha Beema Yojana
PMU	Project Management Unit
POERI	Power over Economic Resources
POP	Progesterone-Only Pill
POS	Point of Sale
PPC	Primary Processing Centres
PPIUCD	Post Partum Intra Uterine Contraceptive Device
PPP	Public Private Partnership
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

Acronyms and Abbreviations	
PSE	Pre School Education
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
PTTC	Primary Teachers Training Colleges
PVTG	Particularly Vulnerable Tribal Groups
PVTG	Particularly Vulnerable Tribal Group
PVUNL	Patratu Vidyut Utpadan Nigam Limited
PWCS	Primary Weavers Cooperative Societies
PWD	Public Works Department
PWD	Persons with Disabilities
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
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
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

Acronyms and Abbreviations	
RFS	Rural Franchisee Schemes
RGVY	Rajiv Gandhi Gramin Vidyutikaran Yojna
RGPSA	Rajiv Gandhi Panchayat Shasaktikaran Abhiyan
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
RGSY	Rashtriya Gram Swaraj Yojana
RIDF	Rural Infrastructure Development Fund
RIMC	Rashtriya Indian Military College
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
RPWSS	Rural Piped Water Service Scheme
RPWSS	Reliance Power Wash Sales Services
RRB	Regional Rural Banks
RRP	Road Requirement Plan
RSETI	Rural Self Employment Training Institute
RTE	Right to Education
RUDSETI	Rural Development & Self Employment Training Institute
RUSA	Rashtriya Uchchar Shiksha Abhiyaan
RVNL	Rail Vikas Nigam Limited
RVSPY	Rajya Vidhwa Samman Pension Yojna
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
SAM	Severe and Acute Malnourished Children
SAPCC	State Action Plan on Climate Change
SARA	State Adoption Resource Agencies
SAU	Social Audit Unit
SATH-E	Sustainable Action for Transforming Human Capital in Education
SBA	Skilled Birth Attendant
SBLP	SHG bank-linkage program
SBM- G	Swachh Bharat Mission (Gramin)
SBM-U	Swachh Bharat Mission (Urban)

Acronyms and Abbreviations	
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
SFD	State Forest Department
SGDP	State Gross Domestic Product
SGST	State Goods and Service Tax
SGSY	Swaranjayanti Gram Swarajgar 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
SIRD	State Institute of Rural Development

Acronyms and Abbreviations	
SITP	Scheme For Integrated Textile Parks
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
SMART	Simple Methodical Accountable Responsive Transparent
SMC	Soil & Moisture Conservation
SMC	School Management Committee
SME	Small and Medium Enterprises
SMMU	State Mission Management Unit
SNP	Supplementary Nutrition Programme
SOR	State's Own Revenue
SoUL	Solar Light
SPIADA	Santhal Paragna Industrial Area Development
SPV	Solar Photo-Voltaic
SPV	Special Purpose Vehicle
SPT	Santhal Pargana Tenacy
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

Acronyms and Abbreviations	
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
SVNSPY	Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana
SWAN	State Wide Area Network
SWI	Systematic Wheat Intensification
SWM	Solid Waste Management
SWPS	State Widow Pension Scheme
TB	Tuberculosis
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
UID	Unique Identity Number
ULB	Urban Local Body
UN	United Nation
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

Acronyms and Abbreviations	
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
U.P	Uttar Pradesh
UPSS	Usual Principal and Subsidiary Status
UR	Uemployment Rate
USEP	Urban Self-Employment Programme
UT	Urban Transport
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
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
VMC	Village Monitoring Committee
VO	Village Organization
VRF	Vulnerability Reduction Fund
VTIP	Vocational Training Improvement Project
VRP	Village Resource Person
VWSC	Village Water and Sanitation Committee
WAMIS	Work and Management Information Systems
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 Insitutie
XISS	Xavier Institute of Social Service
YSS	Yogada Satsang

I

MACRO-ECONOMIC OVERVIEW



After the drought of the year 2015-16 and consequent dip in its economic growth, the economy has bounced back to the phase of high growth rate. The average annual growth rate (AAGR) for the last three years (2016-17 to 2018-19) has been 8.2 per cent. Last year it grew at the rate of 6.7 per cent and in the current financial year, it is estimated to grow at the rate of 6.8 per cent. The state has made a commendable progress so far as other indicators of development are also concerned.

The real Gross State Domestic Product (GSDP) of Jharkhand is estimated to grow by 6.8 per cent and the nominal GSDP¹ by 10.4 per cent in the current financial year (2018-19). The state economy has almost grown at a steady rate for the last two years. In 2017-18 the growth in its real and nominal GSDP was 6.7 per cent and 10.2 per cent, respectively. The growth rates in these two years have moderated after a high growth experienced in the year 2016-17. In 2016-17 the real and nominal GSDP grew at the rate of 11.2 per cent and 14 per cent, respectively. The real and the nominal GSDP, thus, has grown at the average annual rate of 8.2 per cent and 11.5 per cent, respectively, in the last three years.

The Gross State Value Added at basic prices (GSVA)² at constant prices has grown at an annual rate of 8.9, 6.5 and 6.6 per cent respectively in the last three years, that is, in the years 2016-17, 2017-18 and 2018-19. The per capita income at constant prices in these three years (2016-17, 2017-18 and 2018-19) has grown at 9.4, 5.0 and 5.1 per cent respectively. The average growth rate

between the years 2011-12 and 2018-19 seems to be a modest 5.8 per cent per annum. But this is because of low growth rates experienced in the years 2013-14 and 2015-16. The average growth figures would have been more impressive had the performance in these two years not been so low. Both these years were not normal in terms of rainfall and production (see Box-1.1 below). If these two years are ignored, then the average annual growth rate of GSDP, GSVA and per capita income at constant prices between the years 2011-12 and 2018-19 would have been 9.1, 8.6 and 7.8 per cent, respectively. The economy, thus, has shown its resilience by bouncing back in economic performance after a slump caused by factors beyond its control – failure of monsoon or unfavourable external situations.

The real GSDP of Jharkhand is estimated to be ₹ 2,21,587 crore and the real GSVA at basic prices is estimated to be ₹ 1,82,893 crore in the financial year 2018-19. The nominal GSDP and GSVA in the year 2018-19 are estimated to be 2,53,183 crore and 2,86,598 crore respectively. The real and nominal per capita GSDP are estimated to be ₹ 59,384 and ₹ 76,806 respectively in this financial year. The GSDP and GSVA of Jharkhand were ₹ 1,50,918 crore and ₹ 1,39,130 crore, respectively, and the per capita income was ₹ 45,318 in the year 2011-12, the base year for the new series of data for income and related aggregates. The GSDP and GSVA, thus, are estimated to have grown by about 47 per cent and 40 per cent respectively and per capita income by about 32 per cent in the last seven years.

Table 1.1: GSVA, GSDP, NSDP and Per Capita GSDP at current and constant prices

Year	GSVA in ₹ Crore		GSDP in ₹ Crore		NSDP in ₹ Crore		Per capita GSDP in ₹	
	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices
2011-12	139130	139130	150918	150918	137383	137383	45318	45318
2015-16	157741	186875	174881	206613	158231	187479	49210	58139
2016-17 (P.)	171768	208628	194475	235560	177622	216000	53840	65214
2017-18 (Pr.)	182893	229648	207489	259664	189572	238397	56517	70728
2018-19 (Pr.)	194974	253183	221587	286598	202521	263436	59384	76806

(P-Provisional, Pr. -Projection)

Projections for the year 2017-18 & 2018-19 have been made by Centre for Fiscal Studies, GoJ.

Source: DES, GoJ

¹ The real GSDP is also known as GSDP at constant (2011-12) prices and the nominal GSDP is also known as GSDP at current prices.

² Gross Value Added (GVA) or Gross State Value Added (GSVA) is the summation of value addition made by enterprises, Government and households. The GDP or GSDP is equal to GVA or GSVA at basic prices + product taxes – product subsidies.

Table 1.2: Growth in GSVA, GSDP, NSDP and Per GSDP, at Constant and Current Prices

Year	GSVA		GSDP		NSDP		Per capita GSDP	
	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices
2016-17 (P)	8.9	11.6	11.2	14.0	12.3	15.2	9.4	12.2
2017-18 (Pr.)	6.5	10.1	6.7	10.2	6.7	10.4	5.0	8.5
2018-19 (Pr.)	6.6	10.2	6.8	10.4	6.8	10.5	5.1	8.6
AAGR between 2011-12 & 2018-19	5.1	9.2	5.8	9.8	5.9	10.0	4.11	7.31
AAGR between 2011-12 & 2018-19 ignoring the years 2013-14 & 2015-16.	8.6	12.8	9.1	13.3	9.6	13.9	7.3	10.4

(P-Provisional, Pr.- Projection)

Source: Calculated from the data of GSDP and related aggregates of Directorate of Economics and Statistics (DES), GoJ. Projections for the year 2017-18 & 2018-19 have been made by Centre for Fiscal Studies, GoJ.

Figure 1.1: GSDP at constant & current prices

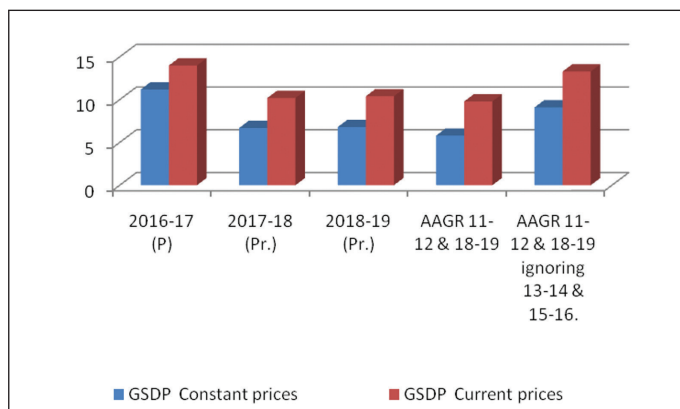


Figure 1.2 : Growth rat of GSDP at constant & current prices

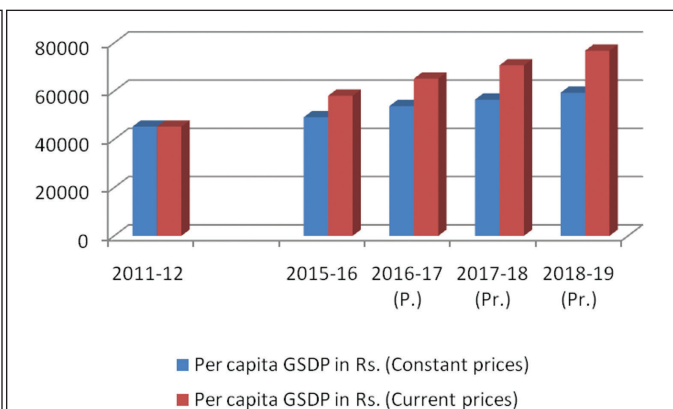


Figure 1.3: Per capita GSDP at constant & current prices

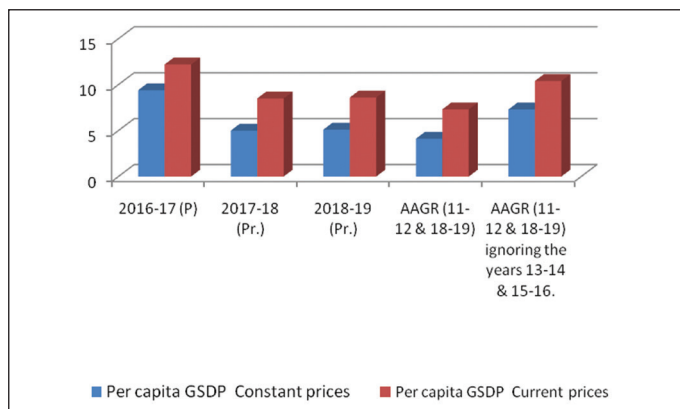
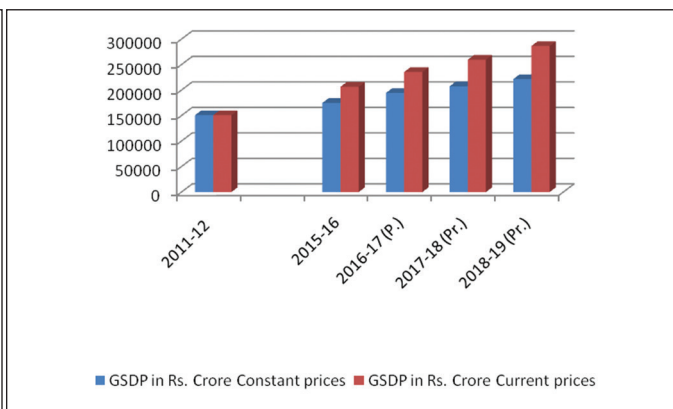


Figure 1.4 : Growth rat of Per capita GSDP at constant & current prices



Box-1.1 : Resilient Jharkhand Economy

In two out of the last eight years - 2013-14 and 2015-16 - the economy of Jharkhand experienced deceleration in its growth rate. Except for these two years, the growth rates on an average have remained impressive in rest of the years.

The economy achieved a growth of 8 per cent in GSVa and 8.2 per cent in GSDP in the year 2012-13. This growth, however, declined to a meagre 0.9 per cent and 1.6 per cent in GSVa and GSDP, respectively in the year 2013-14. Similarly, from more than 12 per cent growth achieved in (its GSVa and GSDP) the year 2014-15, the growth rate of its GSDP and GSVa became very low in the year 2015-16.

The poor performance in the year 2013-14 was mainly because of the contraction in the value of the output of crop, manufacturing and public administration by 4.5, 7.2 and 6.8 per cent, respectively. About one third of the GSDP is contributed by these three sectors; about 9 per cent of the GSDP is contributed by the crop sector, about 20 per cent by the manufacturing sector and about 5 per cent by the public administration. Hence, the contraction in their output caused an excessive decline in the growth rate of the economy of Jharkhand.

The decline in the growth rate in the year 2015-16 has mainly been because of about 28 per cent contraction in the output of agriculture, forestry and fishing sector. The share of this sector in the GSVa of the state is about 14 per cent and it makes a contribution of about 8 per cent to the growth of the economy. This contraction in the output of this sector, therefore, caused a decline in the growth rate.

The year 2015-16 was a drought year - 22 out of 24 districts of the state received scanty rainfall. The output of the crop sector, as a result, decreased by about 25 per cent in this year.

Nevertheless, it is the credit of the State that the economy has recovered very fast from these natural calamities. The year 2014-15 and 2016-17 (P) not only experienced recovery in crop production but also in the overall growth rate. In both these years the GSDP at constant prices of the state recorded a double-digit growth rate. In the year 2014-15 it grew at the rate of 12.5 per cent and in the year 2015-16 at 11.2 per cent.

A Decomposition of Jharkhand's Growth Story

Sectoral Variations in Growth Rate: Like the rest of the country, the growth in Jharkhand has not been uniform across its sectors. In the last two years (2017-18 and 2018-19), the tertiary sector has been the fastest and the agriculture, forestry and fishing the slowest growing sectors of the state's economy. While the tertiary sector grew at an annual rate of about 8 per cent, the agriculture and allied sector grew at the rate of about 3.8 per cent only. The mining and quarrying sector has grown at the rate of 7.6 and the manufacturing sector by 6.7 per cent per annum in the last two years.

Due to relatively high growth in the mining and quarrying sector, the primary sector, which is constituted by agriculture, forestry and fishing, and the mining and quarrying sub-sectors, grew at the rate of 5.3 per cent and is expected to grow at the rate of 5.4 per cent in this financial year.

The secondary sector, despite a relatively satisfactory

growth rate recorded by the manufacturing sub-sector; an important constituent of this sector; has grown at the rate of 4.8 per cent only, because of slow growth in the construction and the electricity, gas, water supply and other Utilities sub-sectors the other constituents of this sector.

A relatively high growth of the tertiary sector is because most of the constituents of the tertiary sector have performed extremely well – achieving a double digit annual growth in this period. The air transport has grown at the rate of about 35 per cent and the communication and services related to broadcasting has grown at the rate of about 13 per cent. The trade, repair, hotels & restaurants sub sector has also grown at the rate of about 10 per cent per annum in the last two years. As a result of the poor performance of public administration, real estate, ownership of dwellings & professional services, storage and services incidental to transport; the tertiary sector, on the whole, could not achieve a double-digit growth rate.

Table 1.3: Sectoral Growth rate on Y-o-Y in 2017-18 and 2018-19

S. No.	Year/ Sectors and sub-sectors	2017-18 (Pr)	2018-19 (Pr.)
1.	Agri. , Forestry & Fishing	3.78	3.84
1.1	Crop	3.95	3.95
1.2	Livestock	-0.17	-0.17
1.3	Forestry & logging	7.26	7.26
1.4	Fishing	5.10	5.10
2.	Mining & quarrying	7.59	7.59
I.	Primary (1+2)	5.33	5.40
3.	Manufacturing	6.77	6.77
4.	Electricity, Gas, Water supply & Other Utilities	3.96	3.96
5.	Construction	1.17	1.17
II.	Secondary (3+4+5)	4.82	4.88
III.	Industry (2+II)	5.58	5.64
6.	Trade, repair, hotels & restaurants	10.33	10.34
6.1	Trade & repair services	10.16	10.16
6.2	Hotels & restaurants	12.95	12.95
7.	Transport, Storage & Communication	9.99	10.11
7.1	Railways	12.29	12.29
7.2	Road transport	6.83	6.83
7.3	Air transport	34.87	34.87
7.4	Services incidental to transport	0.80	0.80
7.5	Storage	-12.30	-12.30
7.6	Communication & services related to broadcasting	13.27	13.27
8.	Financial services	5.98	5.98
9.	Real estate, ownership of dwelling & professional services	8.52	8.52
10.	Public administration	-1.55	-1.55
11.	Other services	9.36	9.36
IV.	Tertiary (6+7+8+9+10+11)	8.00	8.15
12.	GVA	6.48	6.61
13.	GSDP	6.69	6.79

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

Sectoral Contribution to Growth Rate: The tertiary sector has been the major contributor to the growth³ of the state's economy. In the year 2018-19, it has contributed 60 per cent to the growth of the state's economy while the primary and secondary sectors have made a contribution of approximately 20 per cent each.

Within the tertiary sector, the two sub-sectors – 'trade, repair, hotels & restaurants' and 'transport, storage, communication & services related to broadcasting',

have made the major contributions to the growth of the state's economy. Their contributions to the state's growth rate have been about 22 and 13 per cent, respectively. This has been because of a very high growth in some of their constituents. Only one of the constituents of the 'Trade, repair, hotels & restaurants' sub-sector, the trade and repair sub-sector, has made a contribution of about 20 per cent to the growth of the state's economy while among the constituents of 'transport, storage, communication & services related

³ Contribution of a sector to the growth rate of state's economy is the growth rate of the sector weighted by the sector's share in GVA. 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 GVA of the state.

to broadcasting' sub-sector, 'railways', 'road transport' and 'communication & services related to broadcasting' have made a contribution of 4 per cent each. Despite an impressive growth in air transport, of about 35 per cent per annum in this period, it has made a very negligible contribution of 0.3 per cent only to the state's economic growth rate. This has been because of its extremely low share, only of 0.06 per cent, in the state's GSVA.

The output of the 'Agriculture, forestry and fishing sector' constitutes about 14 per cent of the GSVA of the state, but its contribution to the State's growth rate is disproportionately low - only about 8 per cent. This is because of a very low average annual growth in crop production, a major constituent of this sector, and almost stagnant livestock production. Though fishing and aquaculture has made a growth of about 5 per cent in this period, its contribution to the growth rate of the economy is only 0.41 per cent. This is because of its extremely low share (0.51 per cent) in the GSVA of the state. 'Forestry and logging' has recorded an annual growth of 7.3 per cent and contributed 3.2 per cent to

the growth of the state's economy. The output of this sector constitutes about 3 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 31 per cent in this period. Within this sector the manufacturing and mining and quarrying have been the major contributors to the growth rate of the state contributing about 18 and 12 per cent, respectively. The other two constituents of this sector, 'Electricity, gas, water supply & other utility services' and 'Construction' have made negligible contribution to the growth of the economy – 0.5 and 1.5 per cent, respectively. Between these two sub-sectors while the 'Electricity, Gas, Water Supply & Other Utility Services' is estimated to grow by about 4 per cent, but its contribution to State's GSVA is less than 1 per cent, the share of 'Construction' in the GSVA of state is about 8 per cent but is estimated to grow by 1 per cent only.

Table 1.4: Sectoral Contribution to Growth Rate & their Share in GSVA in the year 2018-19

S. No.	Item	Contribution to growth rate	Share in GSVA
1.	Agriculture, forestry and fishing	8.4	14.06
1.1	Crops	4.8	7.91
1.2	Livestock	-0.1	2.70
1.3	Forestry and logging	3.2	2.94
1.4	Fishing and aquaculture	0.4	0.51
2.	Mining and quarrying	11.8	10.39
I.	Primary (1+2)	20.2	24.45
3.	Manufacturing	17.6	17.17
4.	Electricity, gas, water supply & other utility services	0.5	0.82
5.	Construction	1.5	8.06
II.	Secondary (3+4+5)	19.6	26.05
III.	Industry (2+II)	31.4	34.93
6.	Trade, repair, hotels and restaurants	22.4	14.80
6.1	Trade & repair services	20.7	13.87
6.2	Hotels & restaurants	1.7	0.93
7.	Transport, storage, communication & services related to broadcasting	13.4	9.01
7.1	Railways	4.8	2.72
7.2	Road transport	3.9	3.80
7.3	Air transport	0.3	0.06
7.4	Services incidental to transport	0.0	0.13

S. No.	Item	Contribution to growth rate	Share in GSVA
7.5	Storage	0.0	0.00
7.6	Communication & services related to broadcasting	4.3	2.30
8.	Financial services	3.1	3.42
9.	Real estate, ownership of dwelling & professional services	12.8	10.13
10.	Public administration	-1.3	5.04
11.	Other services	9.8	7.09
IV.	Tertiary (6+7+8+9+10+11)	60.2	49.49
12.	TOTAL GSVA at basic prices	100.0	100.0

Source: Calculated from the data of projected GSDP of 2017-18 & 2018-19. (Projected by CFS, GOJ on the basis of data of DES, GoJ and MOSPI, GoI).

Sectoral Shares in GSDP

On an average, in the period 2011-12 to 2018-19, the value of the output of the agriculture, forestry and fishing constituted about 15 per cent, that of Industry about 41 per cent and Services about 43 per cent of the GSVA of the state. Their shares in GSVA of the state in the year 2011-12 were 16.05 per cent, 45.41 per cent and 38.54 per cent, respectively. In the financial year 2018-19 the share of agriculture in the GSVA is estimated to be 14.06 per cent and that of Services to increase to 49.49 per cent. This has happened because of a relatively slow growth in the agriculture, forestry and fishing sector and a relatively high growth in the services sector. Decrease in the share of agriculture sector with the growth of the economy is a universal

phenomenon. This happens because of both the technological limitations of agriculture 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 more intense form in the Agriculture 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 Law⁴, the demand for manufactured products and the services increases at a much faster rate than the demand for agricultural products as a response to which the output of the agriculture sector increases at a much slower rate than the other two sectors. The growing dominance of service/tertiary sector is an all India phenomenon and Jharkhand is not an exception to it.

Table 1.5: Share of the major sectors in the GSVA of the state

Item	2011-12	2016-17 (P)	2017-18 (Pr.)	2018-19 (Pr.)	Av. Share in GSVA between 11-12 & 18-19
Agriculture, forestry & fishing	16.05	14.81	14.43	14.06	15.23
Mining and quarrying	11.65	10.19	10.30	10.39	11.20
Primary	27.70	25.00	24.73	24.45	26.44
Secondary	33.76	26.90	26.48	26.05	30.31
Industry	45.84	36.70	35.82	34.93	40.87
Services/ Tertiary	38.54	48.10	48.79	49.49	43.25
GSVA	100.00	100.00	100.00	100.00	100.00
Taxes on Products as a % of GSVA	10.86	15.44	15.51	15.57	12.98
Subsidies on Products as a % of GSVA	2.39	2.22	2.06	1.92	2.17

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

⁴ Engel's law is an observation in economics stating that as income rises, the proportion of income spent on food falls.

Agriculture, Forestry and Fishing Sector

In terms of the value of output, crop production is the most important sub-sector of the ‘Agriculture, Forestry and Fishing’ sector. Despite being rain-fed and dependent on the vagaries of monsoon - because of which its production and growth rate has fluctuated from year to year, 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 this sector in the year 2011-12. Its share, though, has declined in the last few years, but still its share is about 56 per cent of the total output of Agriculture, Forestry and Fishing sector.

Similar to crop production, the share of the output of livestock to the total output of the ‘Agriculture, Forestry and Fishing’ sector has also fluctuated from about 21 per cent in 2011-12 to about 15 per cent in the year 2014-15. For the last few years it has maintained its contribution to about 19 to 20 per cent of the output of ‘Agriculture, Forestry and Fishing’ sector.

Unlike crop and livestock, the shares of forestry and logging, and fishing, with a few exceptions, have increased steadily. The share of forestry and logging has increased from 16 per cent to 21 per cent and that of fishing from 2.5 per cent to 3.6 per cent in the period 2011-12 to 2018-19 (Pr.).

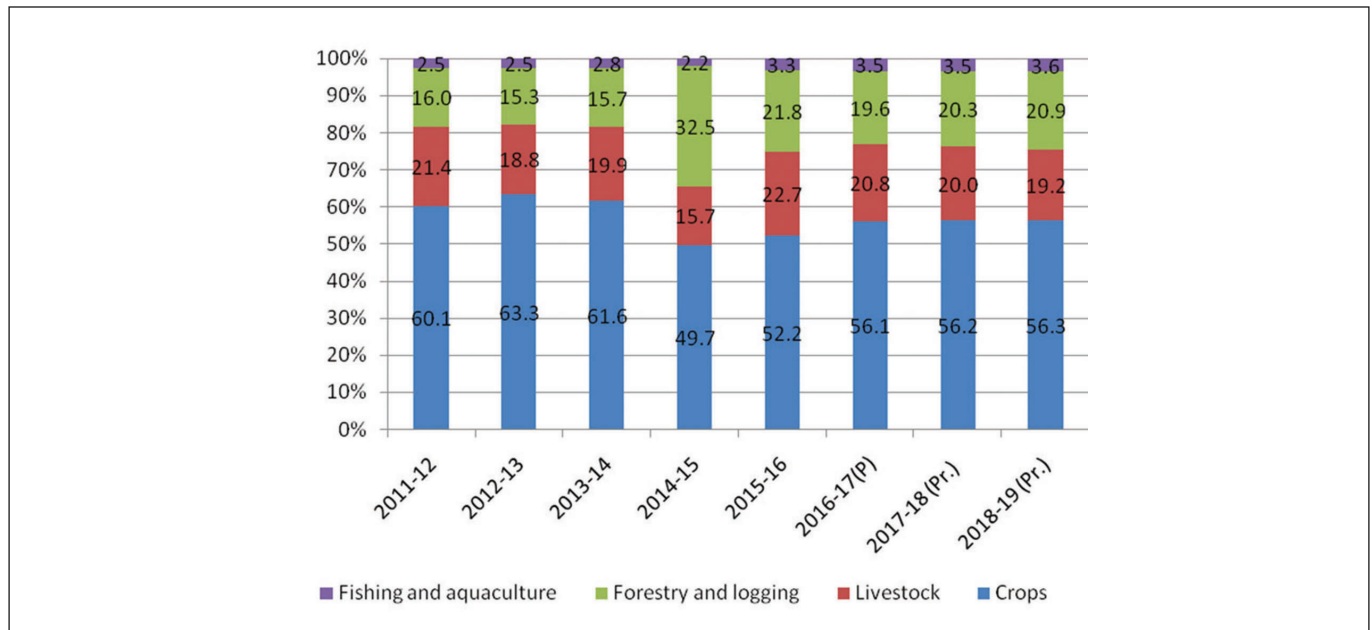
Table 1.6: Value of the output of Agriculture, forestry & fishing sector and constituents

(₹ Crore)

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17(P)	2017-18 (Pr.)	2018-19 (Pr.)
Crops	13421	14980	14305	15074	11336	14275	14839	15425
Livestock	4776	4457	4611	4751	4935	5280	5271	5261
Forestry and Logging	3576	3619	3653	9853	4733	4988	5350	5739
Fishing and Aquaculture	563	593	644	654	712	891	937	985
Agriculture, Forestry & Fishing	22335	23650	23213	30332	21717	25434	26397	27410

Source: Department of Economics and Statistics, GoJ. projections by CFS, GoJ.

Fig 1.5 : 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 and projections of CFS, GoJ.

The reason for the decline in the shares of the crop and livestock sub-sectors in the total output of ‘Agriculture, Forestry and Fishing’ sector is their less- than-the average growth rate. While the Agriculture, Forestry and Fishing Sector grew at an average annual rate (AAR) of 4.43 per cent per annum the crop production grew at the rate (AAR) of 3.07 per cent and livestock at 1.48 per cent per between 2011-12 and 2018-19.

The performance of the other two constituents of Agriculture, Forestry and Fishing sector has remained much better than that of the above sub-sectors and the average of the sector. The Forestry & Logging and Fishing & Aquaculture, the other two constituents of Agriculture, Forestry and Fishing sector, have grown at a much higher rate than the average growth rate of this sector. These two sub-sectors have grown at a compound annual rate of about 20 and 9 per cent, respectively.

Industry

Manufacturing is the most important sub- sector of the Industrial sector. The output of this sub-sector constitutes about 47 per cent of the total output of the Industrial sector on the whole. The value of the output of ‘Mining and Quarrying’ constitutes about 28 per cent and that of the Construction sub sector about 22 per cent to the total output of this sector. In terms of the value of output, the Electricity, Gas, Water Supply & Other Utility services is an insignificant constituent of the Industrial sector. The output of this sub-sector contributes only 2.3 per cent to the total output of the Industrial sector. The share of this sub-sector has mostly declined in the last seven years - from 3.8 per cent of the total output of the Industrial sector in the year 2011-12, to 2.3 per cent in the year 2018-19.

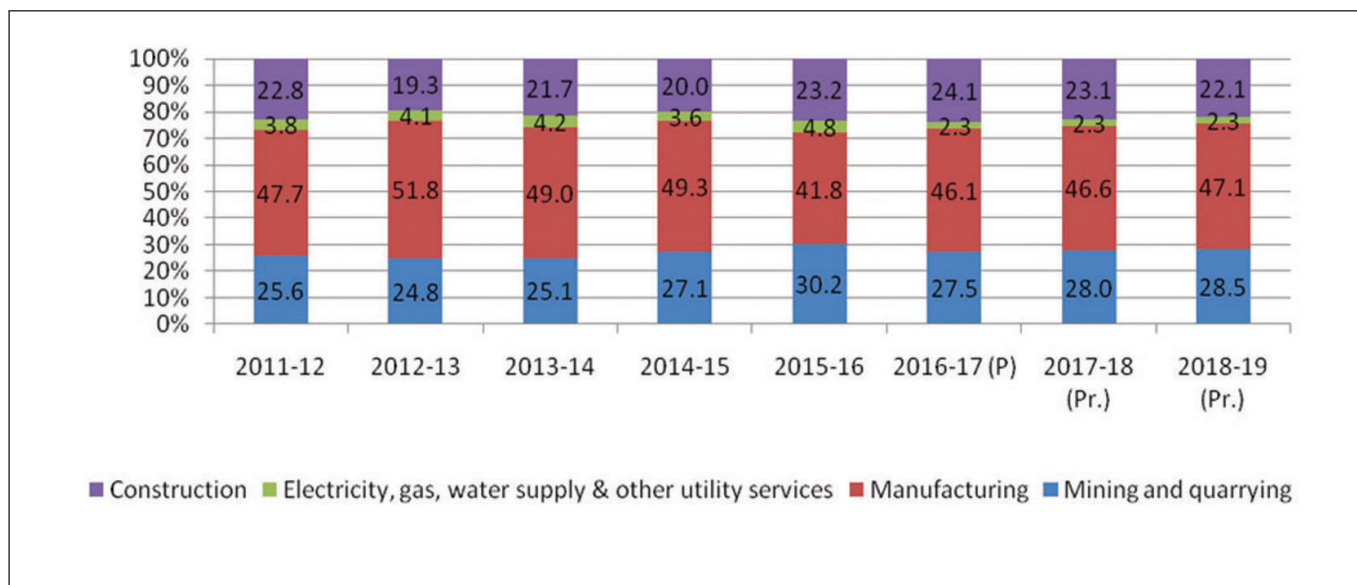
Table 1.7 : Value of output of Industrial sector at constant prices

(₹ Crore)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr.)	2018-19 (Pr.)
Mining and quarrying	16204	17305	17206	20179	19651	17508	18836	20265
Manufacturing	30166	36148	33564	36720	27264	29368	31357	33481
Electricity, gas, water supply & other utility services	2412	2863	2910	2710	3103	1480	1538	1599
Construction	14395	13443	14843	14904	15147	15356	15535	15716
Industry	63177	69760	68523	74514	65165	63712	67267	71062

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

Fig 1.6: Share of the sub-sectors in industrial output



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

The Industrial sector is estimated to have grown by 5.6 per cent in the last two years (2017-18 and 2018-19). Within this sector the manufacturing sub-sector is estimated to have grown by 6.8 per cent in the last year (2017-18) and is expected to maintain its growth at the same rate in this financial year (2018-19). ‘Electricity, Gas, Water Supply & Other Utility Services’ and Construction, in the last two years, have grown at the annual rates of about 4 and 1.7 per cent, respectively. The growth rates of these two sub-sectors have remained much less than the other constituents of the Industrial sector.

Tertiary/ Service Sector

Like the rest of the Indian economy, the economy of Jharkhand is getting tertiarized over a period of time. The Tertiary/ Service sector, as has been mentioned in the sections above, has been the most dominant and the fastest growing sector of the economy of this state. The output of this sector constitutes about 50 per cent of the GSVA of the state; it is growing at an average annual rate of 8.8 per cent, much faster than the overall growth rate of the total income of the state. It alone contributes about 60 per cent to 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 14 per cent in the period 2011-12 to 2018-19. 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 – from about 21 per cent in the year 2011-12 to 30 per cent in the year 2018-19. The share of the ‘Public Administration’ in the total value of the output of the tertiary sector, on the other hand, has declined in this period from about 18 per cent in 2011-12 to 10 per cent in 2018-19. This has happened because of a very slow growth in this sector. Between 2011-12 and 2018-19, it has grown at an average annual rate of less than one per cent (at 0.67 per cent). After a peak of about 20 per cent reached in the year 2016-17, its growth rate remained negative in the years 2017-18 and 2018-19. In the years 2017-18 and 2018-19, the growth rate of ‘Public Administration’ has been estimated to – 1.6 per cent.

The share of the other major sub-sectors in the total value of the output of tertiary sector has remained almost stable over the years. It indicates that they have grown almost at the same rate at which the tertiary sector, on the whole, has grown.

Table 1.8 : Value of output of the Tertiary sector and its sub-sectors at constant prices

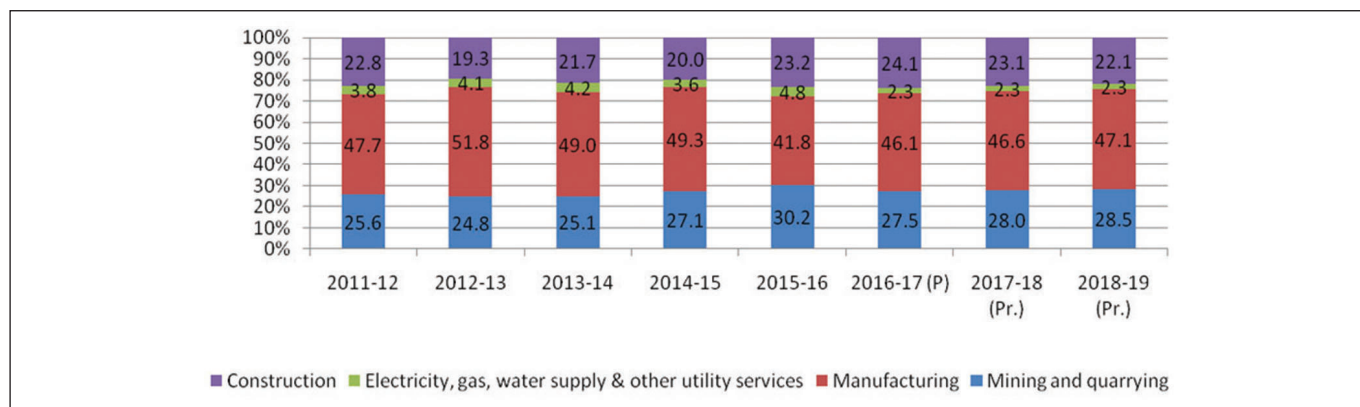
(₹ Crore)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (P)	2017-18 (P)
1	Trade, repair, hotels and restaurants	11521	12873	14006	15493	17772	23708	26157	28861
1.1	Trade & repair services	10660	11844	12982	14252	16428	22286	24551	27047
1.2	Hotels & restaurants	862	1029	1023	1242	1344	1422	1606	1814
2	Transport, storage, communication & services related to broadcasting	9760	10763	11805	12914	13966	14507	15957	17570
2.1	Railways	2979	3454	3749	4218	4223	4209	4726	5307
2.2	Road transport	4582	4909	5357	5587	6042	6484	6927	7400
2.3	Air transport	14	13	23	34	58	69	93	125
2.4	Services incidental to transport	223	254	185	229	229	247	249	251
2.5	Storage	4	4	3	3	3	3	2	2
2.6	Communication & services related to broadcasting	1957	2129	2487	2844	3411	3496	3960	4485
3	Financial services	4144	4533	4665	4932	6082	5938	6293	6670

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (P)	2017-18 (P)
4	Real estate, ownership of dwelling & professional services	11012	11896	12493	14072	15113	16774	18203	19753
5	Public administration	9818	8591	8010	9369	8464	10136	9979	9825
6	Other services	7363	8241	9009	9630	9462	11558	12640	13824
	Tertiary	53617	56897	59988	66412	70859	82622	89230	96502

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

Figure 1.7: Share of the sub sectors in the output of Tertiary Sector



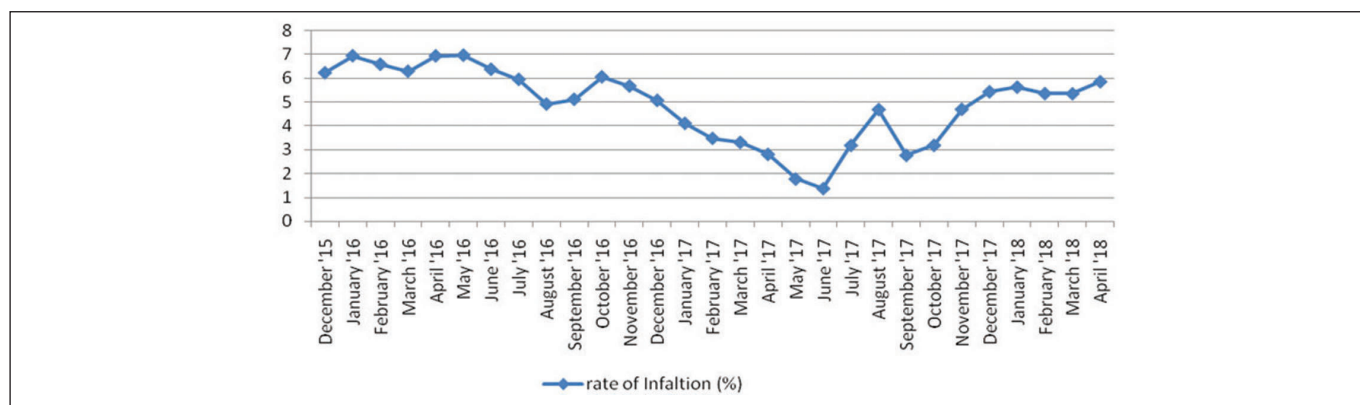
Source: Calculated from the data of GSDP and related aggregates of DES, GoJ and projections of CFS, GoJ.

Inflation in Jharkhand

The rate of inflation as measured in terms of Consumer Price Index (CPI)⁵ was intolerably high in the financial year 2012-13 and 2013-14. It remained in double digit in most of the months of the years 2012-13 and 2013-14. It has decreased to single digit since then and has remained below 6 per cent since October 2016.

The New Monetary Policy Framework⁶, which was adopted in February, 2015, helped in the moderation of inflation rate and in keeping it within control. The average rate of inflation in the financial year 2015-16 was 5.3 per cent and in the financial year 2017-18 was 3.9 per cent. In the month of October 2018 it is estimated to be 3 per cent only.

Fig 1.8: 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>)

⁵ 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 December 2015 is change in CPI of this month over that of December, 2014.

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.

Progress in the Other Developmental Indicators

Apart from the growth in Gross State Domestic Product, the state has made commendable progress in the other dimensions of development. The indicators related with education, health, gender and amenities and social infrastructure have shown commendable progress between 2005-06 and 2015-16.

Education: In the ten-year period, between 2005-06 and 2015-16, the percentage of female aged 6 years and above who ever attended school increased by 32 per cent and those with ten or more years of schooling increased by about 90 per cent. The literacy rate among men and women has also increased by about 16 and 59 per cent, respectively.

Gender: Except sex ratio, the other dimensions of gender development have improved in the state. The percentage of women having a bank account that they themselves use has increased by 213 per cent and the gender disparity in education has decreased by about 33 per cent.

Amenities and Social Infrastructure: The amenities and social infrastructure have improved over this period of time. A larger percentage of households are now using electricity, safe drinking water or toilets. In these ten years, the households having electricity has increased by about 99 per cent; the households using

clean fuel for cooking has increased by 80 per cent; the households having improved source of drinking water has increased by about 36 per cent and the households using improved sanitation has increased by about 62 per cent.

Health and Physical Well being: All the indicators of health and physical well being of the state have improved over the years. Some of them have recorded more than 200 per cent of growth in this ten year period. For example, the institutional births have increased by about 238 per cent from about a mere 18 per cent in 2005-06 to about 62 per cent in 2015-16. The number of children with full immunization has increased by about 81 per cent – from 34 per cent in the year 2004-05 to about 62 per cent in the year 2015-16. The state is soon going to achieve full coverage of these two facilities. A larger percentage of mothers are getting pre and post natal services these days. The coverage of health schemes is also growing at a fast pace.

Nutrition: The nutritional status of men, women and children has improved over the years. The percentage of children who are who are stunted, wasted or underweight has decreased between 9 to 15 per cent in these ten years. The percentage of men and women whose body mass index is below normal has decreased by about 38 and 27 percent respectively.

Table 1.9 : Progress in Other Developmental Indicators

Indicators	2005-06	2015-16	% Growth
Educational Development			
Female age 6 years and above who ever attended school (%)	46.3	61.1	32.0
Women who are literate (%)	37.1	59.0	59.0
Men who are literate (%)	68.5	79.7	16.4
Women with 10 or more years of schooling (%)	15.1	28.7	90.1
Gender Development			
Sex ratio at birth for children born in the last five years	1091.0	919.0	-15.8
Women having a bank account that they themselves use (%)	14.4	45.1	213.2
Gender Disparity in Education	31.4	20.9	-33.4
Development in Amenities and Social Infrastructural			
Households with electricity (%)	40.2	80.1	99.3
Households with an improved drinking-water source (%)	57.0	77.8	36.5
Households using improved sanitation facility (%)	15.1	24.4	61.6
Households using clean fuel for cooking (%)	10.5	18.9	80.0
Development in Health and physical well being			
Mothers who had full antenatal care (%)	4.9	8.0	63.3

Indicators	2005-06	2015-16	% Growth
Mothers who received postnatal care (%)	15.6	44.4	184.6
Institutional births (%)	18.3	61.9	238.3
Children age 12-23 months fully immunized	34.2	61.9	81.0
Total fertility rate (children per woman)	3.3	2.6	-21.2
Households with any member covered by a health scheme or health insurance (%)	4.6	13.3	189.1
Progress in Indicators of Nutrition			
Children under 5 years who are stunted (height-for-age) (%)	49.8	45.3	-9.0
Children under 5 years who are wasted (weight-for-height) (%)	32.3	29.0	-10.2
Children under 5 years who are underweight (weight-for-age)(%)	56.5	47.8	-15.4
Women whose Body Mass Index (BMI) is below normal (%)	42.9	31.5	-26.6
Men whose Body Mass Index (BMI) is below normal (%)	38.6	23.8	-38.3

Source: NFHS -3 (2005-06) and NFHS – 4 (2015-16).

Infant and Child Mortality: As a result of the improved care of mothers and children, the infant and child (under 5) mortality rate has declined sharply in the state, at a much higher rate than what has been achieved by the

country on the whole. The rate of decrease in both has accelerated since 2014. The infant and child mortality rates have decreased at an average annual rate of about 6 and 9 per cent, respectively.

Table 1.10 : The infant and child mortality rate in Jharkhand

	2011	2012	2013	2014	2015	2016
IMR	39	38	37	34	32	29
Under 5 mortality	54	50	48	44	39	33

Source: SRS of respective years.

Family Planning: The total fertility rate has decreased by about 21 per cent in the ten years period between 2004-05 and 2015-16. It was 3.3 in 2005-06. It has reduced to 2.6 in the year 2015-16. It is expected to become close to the replacement rate of population very soon.

The decrease in total fertility rate has happened because of an increase in girls' education, an increase in the age of marriage and higher adoption of family planning

measures. The incidence of under-age marriage both among men and women has decreased. About 63 per cent of women aged 20-24 years were married before they were 18 years and about 47 per cent of men aged 25-29 years were married before they were 21 years; there percentage decreased to 38 per cent and 30 per cent respectively in the year 2015-16. The adoption of any modern method of family planning has increased by about 20 per cent and the unmet need of family planning has decreased by about 25 per cent.

Table 1.11 : Performance in Indicators of Family Planning

Indicators	2005-06	2015-16	% change
Women aged 20-24 years married before 18 years (%)	63.2	37.9	-40.03
Men aged 25-29 years married before 21 years (%)	47.1	30.5	-35.24
Any method of family planning (%)	35.7	40.4	13.17
Any modern method of family planning (%)	31.1	37.5	20.58
Total unmet need of family planning (%)	24.6	18.4	-25.20
Health worker ever talked to female non-users about family planning (%)	9.4	19.6	108.51
Total fertility rate (children per woman)	3.3	2.6	-21.21

Source: NFHS 3 (2005-06) & 4 (2015-16)

Decrease in Incidence of Poverty

The Global MPI Report, recently released by Oxford Poverty and Human Development Initiative (OPHDI) and United Nations Development Programme (UNDP), shows that the Multi-dimensional Poverty Index (MPI) of Jharkhand has decreased at the rate of about 7 per cent per annum – from 0.425 in the year 2004-05 to 0.205 in the year 2015-16. The percentage of multi-dimensionally poor in the state has decreased at the rate of 4.8 per cent per annum between 2005-06 and 2015-16. About 75 per cent of the population of Jharkhand was multi-dimensionally poor in the year 2005-06; it has decreased to 46 per cent in the year 2015-16. About 72 lakh people, thus have come out of multi-dimensional poverty in these 10 years. About 2.34 crore people were multi-dimensionally poor in the year 2005-06 and 1.62 crore in the year 2015-16. The intensity of poverty in the state has also decreased at the rate of 2.4 per cent per

annum - from 57 per cent in the year 2005-06 to 44.7 per cent in the year 2015-16.

Jharkhand has been next to only Bihar in the incidence of multi-dimensional poverty in both these years but the reduction in poverty in this state has been much higher than that of Bihar in this period. As a result, the gap between the poverty in these two states has increased in this period.

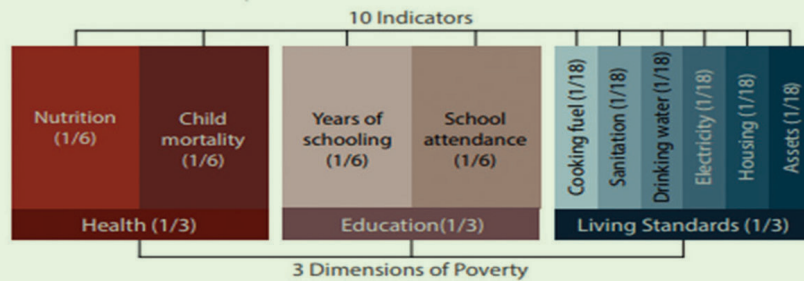
Table 1.15: Percentage of Population living in Multidimensional Poverty

	2005-06	2015-16	Relative Annual decline
Jharkhand	75.0	46.0	4.8
Bihar	77.0	52.0	3.8
All India	55.0	27.5	6.6

Source: *The Global MPI Report, 2018.*

Box 1.2: Multi-Dimensional Poverty Index

Poverty is not one-dimensional as captured by traditional income / consumption measure. It involves multiple deprivations. The Multidimensional Poverty Index (MPI) takes into consideration different dimensions of poverty while making a composite index of poverty. It measures poverty in terms of deprivations faced by people in education, health and living standards. It is a composite index of ten weighted indicators covering the above mentioned three basic dimensions of human existence – health, education and living standards. If someone is deprived in three or more of these indicators, the person is identified as ‘MPI poor’, and the extent – or intensity – of poverty is measured by the number of deprivations the person is experiencing.



The global MPI was developed by OPHI with the UN Development Programme (UNDP) for inclusion in UNDP’s flagship *Human Development Report* in 2010. It has been published in the *HDR* ever since.

The Multidimensional Poverty Index in India at the national, sub-national (state) and district level has been calculated by OPHI⁷ using the third and fourth rounds of the NFHS, 2005-06 and 2015-16, respectively.

The NFHS has been conducted by the International Institute of Population Sciences (IIPS) Mumbai, and is the major source for demographic and health indicators in India. With support from the ICF International, and the National AIDS Research Institute (NARI) Pune, it is part of the Demographic Health Surveys (DHS) conducted globally. The NFHS questionnaire is comparable to those of other DHS surveys, making these findings suitable for international comparisons.

⁷ Sabina Alkire, Christian Oldiges and Usha Kanagaratnam: “Multidimensional Poverty Reduction in India 2005/6–2015/16: Still a Long Way to Go but the Poorest Are Catching Up”, OPHI Research in Progress Series 54a, Oxford Poverty & Human Development Initiative (OPHI), Oxford Department of International Development, Queen Elizabeth House (QEH), University of Oxford.

Inter District Disparity in the Incidence of Multi-dimensional Poverty

There is wide inter-district disparity in the incidence of multi-dimensional poverty. The industrialized and urbanised districts have lower incidence of multi-dimensional poverty than those who are less urbanised and industrialised. While less than 34 per cent of the population of Purbi Singhbhum, Ranchi, Ramgarh, Dhanbad and Bokaro are multi-dimensionally

poor, more than 60 per cent of the population of Paschimi Singhbhum, Sahibgunj and Pakur are multi-dimensionally poor. The incidence of MPI (multi-dimensional poverty index) is the least in Purbi Singhbhum and the highest in Pakur –it is as low as 0.11 in Purbi Singhbhum and as high as 0.322 in Pakur. While only about 25 per cent of the population of Purbi Singhbhum are multi-dimensionally poor, more than 66 per cent of them are multi-dimensionally poor in Pakur.

Table-1.13 : Inter District Disparity in Multi-dimensional Poverty

Very low incidence	Moderate Incidence	High incidence	Very high incidence
(MPI between 0.11 & 0.14) (% of poor between 25 & 35)	(MPI between 0.14 & 0.20) (% of poor between 35 & 45)	(MPI between 0.20 & 0.25) (% of poor between 45 & 55)	(MPI above 0.25) (% of poor above 56)
Purbi Singhbhum	Kodarma	Gumla	Latehar
Ranchi	Hazaribagh	Palamau	Jamtara
Ramgarh	Saraikela Kharsawan	Deoghar	Garhwa
Dhanbad		Lohardaga	Godda
Bokaro		Khunti	Chatra
		Giridih	Dumka
		Simdega	Sahibganj
			Pashchimi Singhbhum
			Pakur

As has been observed elsewhere, development and poverty seem to be negatively related in Jharkhand also. The districts which are more developed have low incidence of multi-dimensional poverty. Inter district disparity in the level of development measured on the basis of a composite index of 17 developmental indicators related with eight major dimensions of development⁸ also found out that the more urbanised and industrialised districts are more developed than the rest. 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 Singhbhu are located, is more developed than the districts located in the North West and North East of the state because this region, being the hub of mining, commercial and industrial activities, is more urbanised than the latter two regions. The incidence of multi-dimensional poverty also follows almost the same pattern.

Table-1.14 : Inter District Disparity in Development

Highly Incidence	Moderately Developed	Less Developed	Least Developed
Dhanbad	Kodarma	Lohardaga	Pakur
Ranchi	Deoghar	Sahibganj	Dumka
Ramgarh	Giridih	Jamtara	Godda
Bokaro	Hazaribagh	Latehar	Chatra
Purbi Singhbhum	Pashchimi Singhbhum	Gumla	Palamau
Saraikela-Kharsawan		Khunti	Garhwa
		Simdega	

⁸ This composite index has been made using indicators related with eight dimensions of development, namely 1. Economic wellbeing, 2. Infrastructural development, 3. Asset Ownership, 4. Urbanization, 5. Education, 6. Health, 7. Non farm sector and 8. Water & sanitation. It has been made using principal component analysis

Conclusion

The real Gross State Domestic (GSD) of Jharkhand is estimated to grow by 6.8 per cent and the nominal GSDP by 10.4 per cent in this financial year (2018-19). In the last three years the (2016-17 to 2018-19) economy grew at an average annual rate of 8.2 per cent per annum. The per capita GSDP at constant prices in these three years (2016-17, 2017-18 and 2018-19) has grown at 9.4, 5.0 and 5.1 per cent respectively. The average growth rate between the years 2011-12 and 2018-19 seems to be a modest 5.8 per cent per annum. This is because of low growth rates experienced in the years 2013-14 and 2015-16. If these two years, which were not normal years, are ignored, then the average annual growth rate of GSDP, GSVA and per capita income at constant prices between the years 2011-12 and 2018-19 would have been 9.1, 8.6 and 7.8 per cent, respectively. The economy has shown its resilience by bouncing back in economic performance after a slump caused by factors beyond its control – failure of monsoon or unfavourable external situations. For the last three years, the inflation rate has also remained in control – within the permissible level of the new monetary policy framework of 4 +/- 2 per cent.

The growth in Jharkhand has not been uniform across its sectors. The tertiary sector has been the fastest and the agriculture, forestry and fishing the slowest

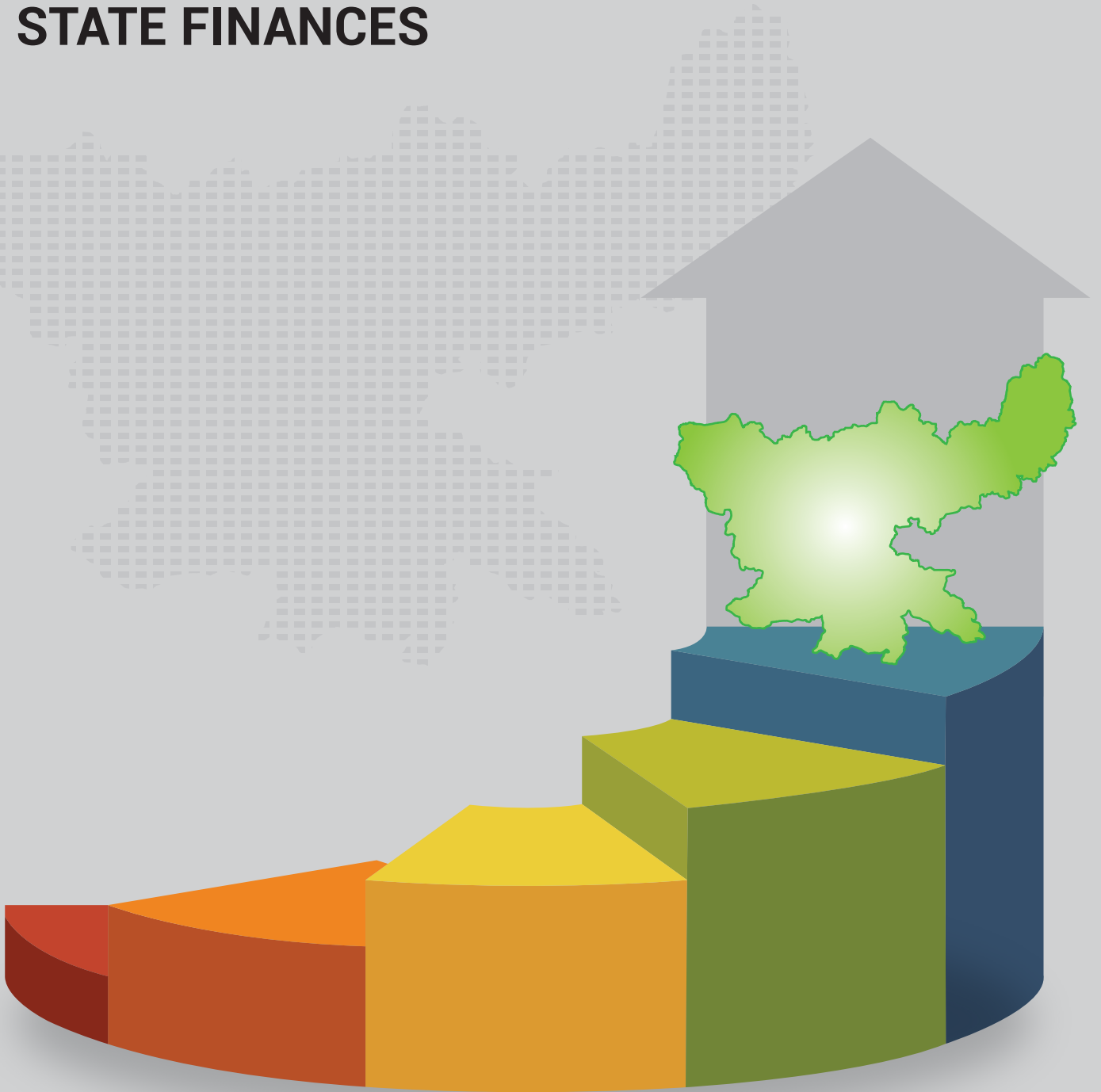
growing sectors of the state's economy. Though the manufacturing sector has performed well the construction and the Electricity, Gas, Water supply and Other Utilities sub-sectors, the other constituents of industrial and secondary sectors have not performed so well.

Apart from the growth in Gross State Domestic Product, the state has made commendable progress in the other dimensions of development. The indicators related with education, health, gender and amenities and social infrastructure have shown commendable improvement between 2005-06 and 2015-16.

The poverty in Jharkhand, as measured by MPI, has also decreased sharply between 2005-06 and 2015-16. The MPI of Jharkhand has decreased at the rate of about 7 per cent per annum and the percentage of multi-dimensionally poor in the state has decreased at the rate of 4.8 per cent per annum in this period. There is wide inter-district disparity in the incidence of multi-dimensional poverty. The industrialized and urbanised districts have lower incidence of multi-dimensional poverty than those which are less urbanised and industrialised. The corridor which starts from the east and ends at the south east, is more developed and has low incidence of poverty than the other regions of the state.

II

FISCAL DEVELOPMENT AND STATE FINANCES



The state has expanded the size of its budget over the years. The total expenditure of the state increased at the compound annual growth rate (CAGR) of 17.2 per cent between 2011-12 and 2017-18. This year it is estimated to grow by 18.5 per cent. Increase in expenditure in the state has been financed by a matching increase in its receipts. The total receipt of the state has increased at an average annual rate (CAGR) of about 17 per cent between 2011-12 and 2017-18. In most of the years the fiscal deficit of the state is within the permissible limit of FRBM and the public debt is well within the borrowing ceiling.

Jharkhand has succeeded in expanding the size of its budget and meeting the growing developmental demands of the state over the years. The total expenditure of the state which was about ₹ 26 thousand crore rupees in the year 2011-12 increased to about ₹ 67 thousand 7 hundred crores in the year 2017-18 – more than two and a half times in a period of six years. It is estimated to be ₹ 80

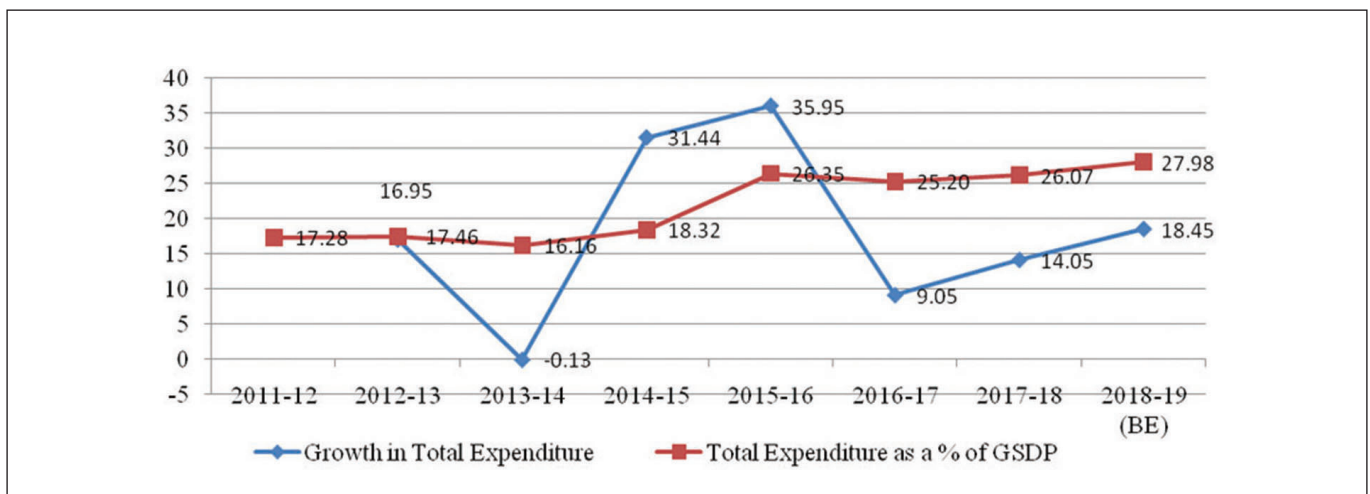
thousand 2 hundred crore in the financial year 2018-19. Between 2011-12 and 2017-18 the total expenditure of the state increased at the compound annual growth rate (CAGR) of 17.2 per cent. In the current financial year it is estimated to grow by 18.5 per cent. In comparison to the period 2011-12 to 2013-14, the total expenditure of the state grew at a much faster rate in the period 2014-15 to 2017-18. While in the period 2011-12 to 2013-14 it grew at the annual rate (CAGR) of 8.1 per cent only, in the period 2014-15 to 2017-18, it grew at the CAGR of 19.1 per cent. In the period 2014-15 to 2018-19, the total expenditure has grown faster than the GSDP at current prices. As a result the total expenditure as a percentage of GSDP at the current prices has improved in the last four years. The total expenditure which was between 16 and 17 per cent of GSDP in the years 2011-12 to 2013-14, increased to about 18 per cent of GSDP in the year 2014-15 and about 26 per cent in the year 2017-18. In the current financial year (2018-19) it is estimated to be about 28 per cent of the GSDP.

Table 2.1: Total Receipt and Total Expenditure in ₹ Crore & as a percentage of GSDP

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (BE)
Total Expenditure	26082.47	30502.17	30463.22	40041.50	54437.27	59362.68	67705.95	80200.00
Growth in %		16.95	-0.13	31.44	35.95	9.05	14.05	18.45
Total Expenditure to GSDP ratio	17.28	17.46	16.16	18.32	26.35	25.20	26.07	27.98

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

Figure 2.1: Rate of Growth of Total Expenditure & Total Expenditure as a percentage of GSDP



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

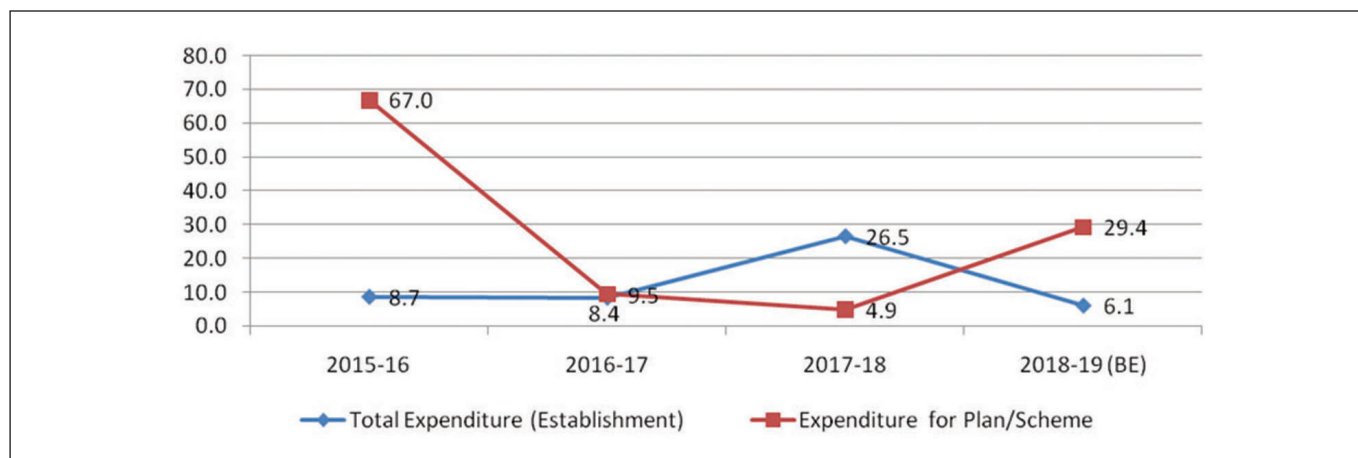
Expenditure

The total expenditure is classified into establishment-expenses and expenditure on plans/schemes. Establishment-expenses include all the committed expenditures while expenditure on plan/scheme includes the expenditure for the purposes of development.

In the last four years, the expenditure on plans/schemes has mostly grown faster than the expenditure on establishment. While the expenditure on establishment grew at an average annual rate (CAGR) of 12.2 per cent,

the expenditure on schemes/plans grew at the average annual rate (CAGR) of 25.5 per cent between 2014-15 and 2018-19. In the year 2015-16, the expenditure on plan/scheme made a record growth of 67 per cent. This could become possible because of the increase in the state's share in central taxes. The state's share in central taxes had increased by about ₹ 6482 crore this year from that of the previous year¹. After growing at a modest rate of less than 10 per cent in the following two years, in this financial year (2018-19) it is estimated to grow by about 29 per cent.

Figure 2.2: Growth in Expenditure on Establishment and Plan/Schemes

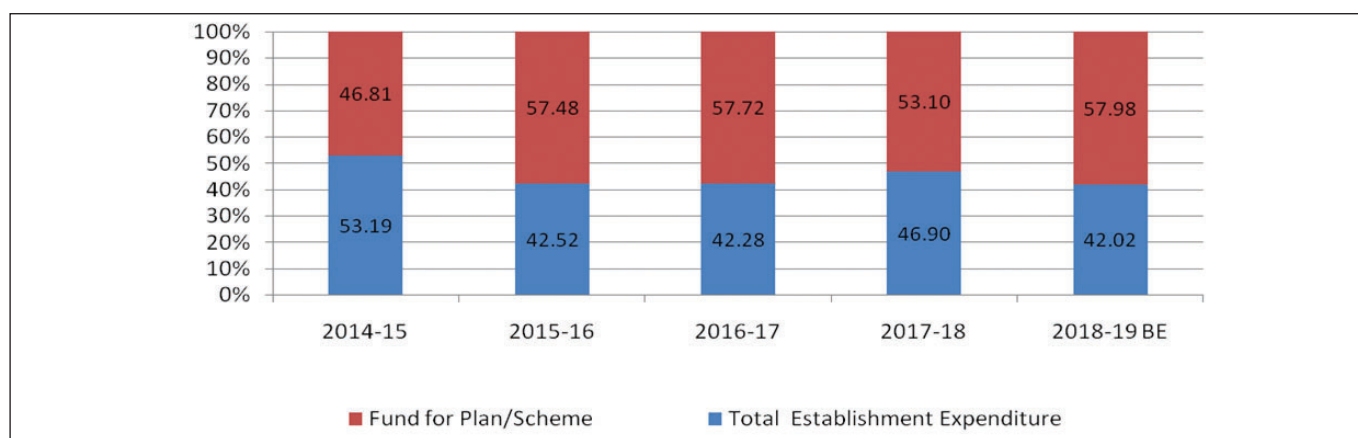


Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

Since 2014-15 (the award period of 14th FC), the expenditure on plans/schemes has constituted more than 50 per cent of the total expenditure of the state. It constituted about 47 per cent of the total expenditure of the state in the year 2014-15, but in the year 2015-16, its share in the total expenditure increased to about 57

per cent because of the very high growth recorded by it. It maintained its share the following year but failed to do so in the year 2017-18. In the current financial year (2018-19) it is estimated to regain its share in the total expenditure.

Figure 2.3: Composition of Expenditure in Establishment and Plan/Schemes



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

¹ 2015-16 was the first year of the reward period of 14th Finance Commission (FC). The 14th FC had increased the devolution to the states from 32 per cent to 42 per cent. Because of the revised sharing norms the share of Jharkhand in inter se transfer also increased from 2.92 in the 13th FC to 3.19 in 14th FC.

Establishment Expenditure

The expenditure on establishment is done on both the revenue and capita accounts. About 90 per cent of such expenditure is done on 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.

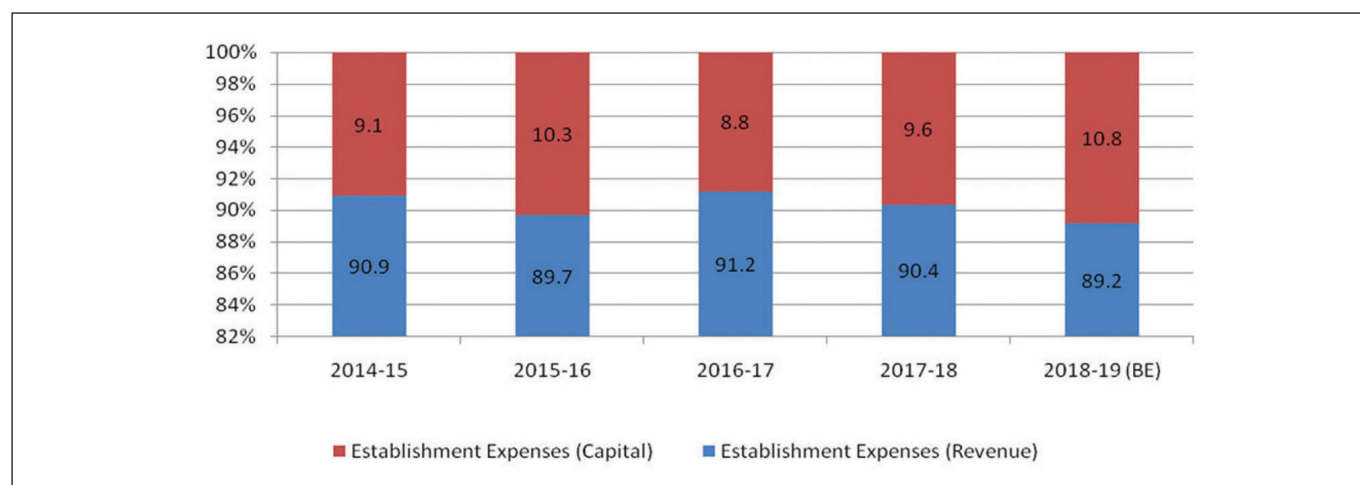
Table 2.2: Total Expenditure and its Constituents

(₹ In crore)

	2014-15	2015-16	2016-17	2017-18	2018-19 (BE)
Establishment Expenses (Revenue)	19358.98	20759.81	22895.38	28702.01	12340.71
Salaries	7381.55	7942.96	8649.36	11220.86	6833.42
Interest	2929.15	3320.08	4138.40	4661.68	2508.76
Pension	3462.53	3990.01	4172.25	5913.24	2998.53
Other Administrative Expenses	5585.75	5506.76	5935.37	6906.23	
Establishment Expenses (Capital)	1937.14	2390.39	2202.08	3055.08	2411.14
Public Debt	1879.88	2245.93	2077.89	2949.50	2073.24
Capital Outlay	22.82	72.23	47.04	20.58	7.71
Loans & Advance	34.44	72.23	77.15	85.00	330.19
Total Expenditure (Establishment)	21296.12	23150.2	25097.46	31757.09	33697
Expenditure for Plan/Scheme	18745.38	31298.18	34265.21	35948.86	46503
Total Expenditure	40041.5	54448.38	59362.67	67705.95	80200

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

Figure 2.4: Composition of Establishment Expenditure

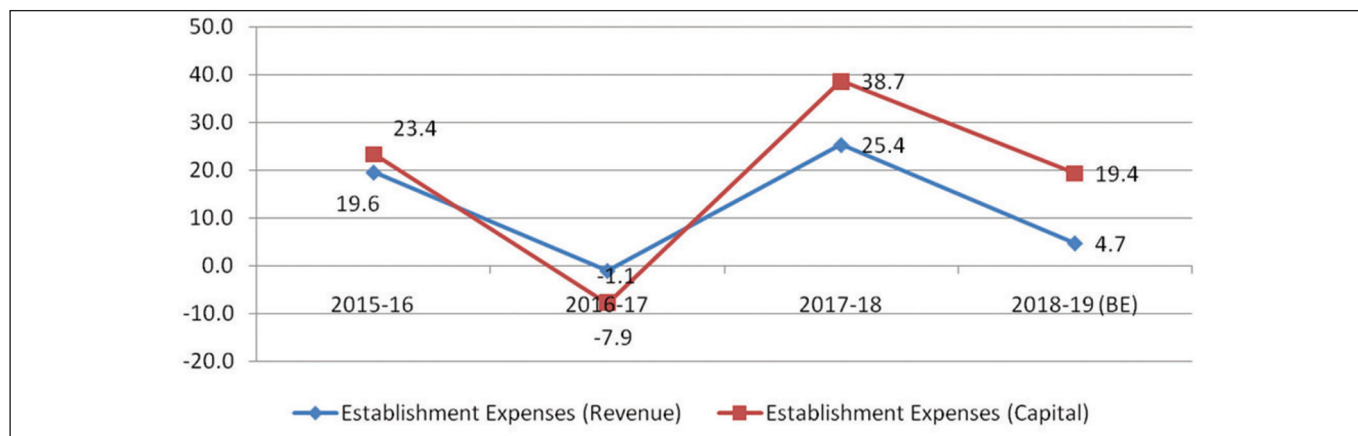


Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

The establishment expenditure on capital account has grown at a rate higher than that on revenue account. While such expenditure on capital account has grown at the rate of 16.4 per cent per annum (CAGR), that on

revenue account has grown at the rate of 14 per cent per annum (CAGR). In the current financial year (2018-19) they are estimated to grow by 19.4 per cent and 4.7 per cent, respectively.

Figure 2.5: Growth Rate Establishment Expenditure of Revenue and Capital Account

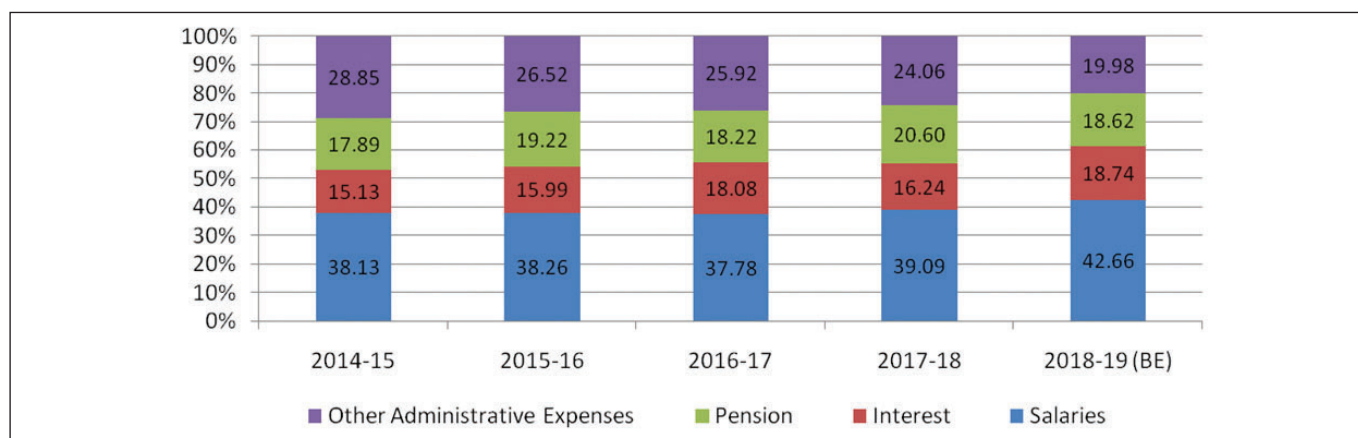


Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

Salary is the most important component of the revenue account establishment expenditure – constituting about two-fifth of it. The remaining part of this expenditure is almost equally distributed for pension, interest and other administrative expenses. The share of pension, interest and salary has increased and that of other administrative expenses has decreased over the years. The share of pension has increased from about 17.9 per cent in the year 2014 to 20.6 per cent in the year 2017-18, that of interest has increased from about 15 per cent in the year 2014-15 to 16 per cent in the year 2017-18 and that of salary has increased from about 38 per cent in the year 2014-15 to 42.66 per cent in the year 2018-19. The share of other administrative expenses in the revenue account establishment expenditure at the same time has decreased from about 28.9 per cent in the year 2014-15 to about 19.98 per cent in the year 2018-19. The changes in the relative share of salary, pension,

interest and other administrative expenses have occurred because of differences in their growth rate. While pension has grown at an annual rate (CAGR) of 19.5 per cent and the interest and salary at the rate of 17 and 15 per cent, respectively, the other administrative expenses have grown at the compound annual rate of 7.3 per cent only in the period 2014-15 to 2017-18. As a result of similar differences in their growth rates, in the current financial year the share of salary, pension, interest and other administrative expenses in the total revenue account establishment expenditure is estimated to be 42.7, 18.6, 18.7 and 20 per cent respectively. The expenditure on interest is estimated to grow by 20.8 per cent and on salary 14.3 per cent in the current financial year. The expenditure on pension and other administrative expenses are estimated to fall by 5.4 and 13.1 per cent, respectively.

Figure 2.6: Composition of Establishment Expenditure (Revenue Account)



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

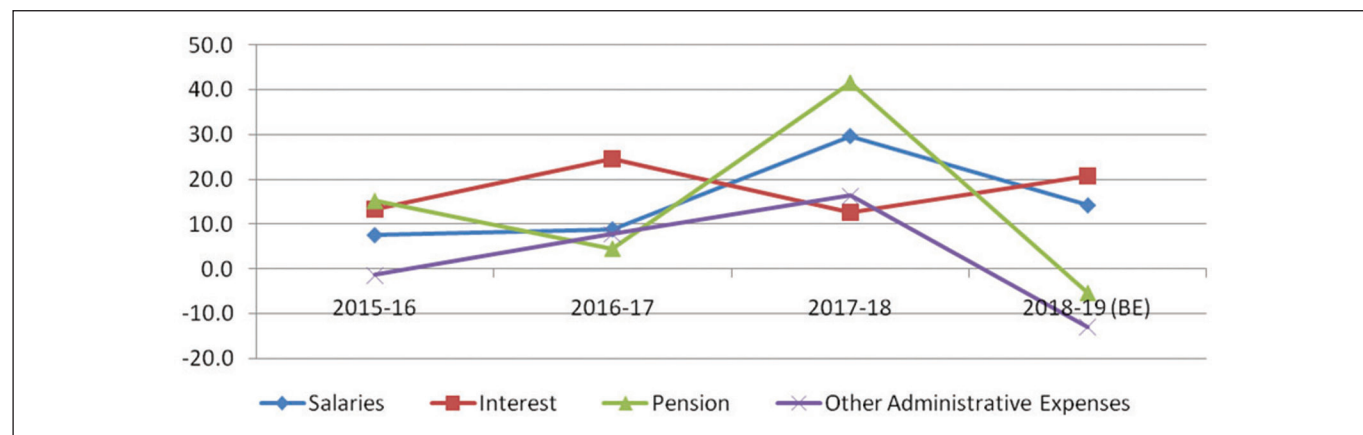
The components of establishment expenditure (revenue account) have not grown uniformly throughout this

period. The growth rate of salary, pension and other administrative expenses reached its peak in the year

2017-18 mainly because of the implementation of the 7th pay commission. In comparison to last year, the salary, pension and other administrative expenses increased by 29.7, 41.7 and 16.4 per cent, respectively in this financial year. Except for pension, the expenditure on

all other items has been estimated to decelerate in this financial year. The expenditure on interest increased at the rate of 24.6 per cent in the year 2015-16, 12.6 per cent in the year 2017-18 and is estimated to grow by 20.8 per cent in the current financial year.

Figure 2.7: Growth in the components of Establishment Expenditure (Revenue Account)



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

Receipts

The increase in expenditure in the state has been financed by a matching increase in its receipts. Both the revenue and the capital receipts of the state have increased over a period of time. While the revenue receipt has increased by about two and a half times the capital receipt has increased by about 4 times between 2011-12 and 2017-

18. The revenue receipt of the state was about ₹ 22 thousand 4 hundred crore and the capital receipt was about ₹ 3 thousand 6 hundred crore in the year 2011-12; they grew to about ₹ 52 thousand 7 hundred crore and ₹ 14 thousand 9 hundred crore respectively in the year 2017-18. In the current financial year they have been estimated to be ₹ 69 thousand 1 hundred crore and ₹ 22 thousand 8 hundred crore respectively.

Table 2.3: The Revenue and Capital Receipts of the Government

(₹ in crore)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (BE)
Revenue Receipts	22419.45	24769.56	26136.79	31564.56	40648.86	47053.93	52756.03	69130.00
Tax Revenue	14123.82	16411.72	18319.11	19836.82	27458.21	32441.17	33497.07	46250.00
State's share of Central Taxes	7169.93	8231.53	8939.32	9487.01	15968.75	19141.92	21143.63	27000.00
State's Own Taxes	6953.89	8180.19	9379.79	10349.81	11489.46	13299.25	12353.44	19250.00
Non-Tax Revenue	8295.63	8357.84	7817.68	11727.74	13190.65	14612.76	19258.96	22880.00
State's Own Non-Taxes	3038.22	3535.63	3752.71	4335.06	5853.01	5351.41	7846.67	9030.00
Grants-in-Aid from GOI	5257.41	4822.20	4064.97	7392.68	7337.64	9261.35	11412.29	13850.00
Capital Receipts	3663.02	5732.61	4326.43	8476.94	13798.92	12308.75	14949.92	11070.00
Public Debt	3639.60	5689.50	4303.11	6690.12	13244.65	7081.42	8136.85	11000.00
Recoveries of Loans	23.42	43.11	23.32	33.06	31.06	38.45	42.41	70.00

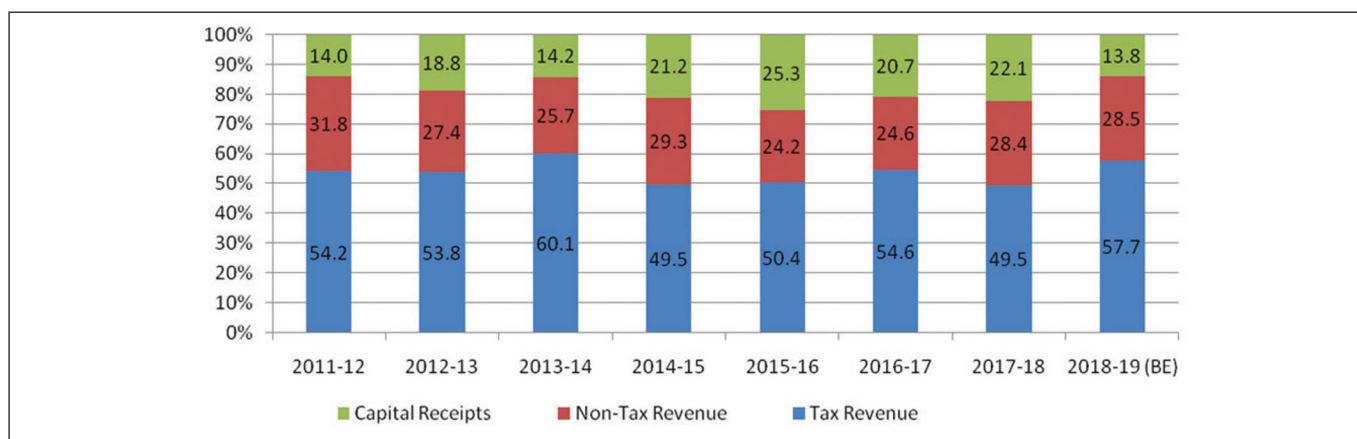
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (BE)
Capital Receipts	0.00	0.00	0.00	0.00	0.00	0.00	25.09	
Public Account (deficit in consolidated fund)	0.00	0.00	0.00	1753.76	523.21	5188.87	6745.57	
Total Receipts	26082.47	30502.17	30463.22	40041.50	54447.78	59362.68	67705.95	80200.00

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

Revenue receipt constitutes the major part of the total receipts of the state - constituting about 75 to 86 per cent of it. The remaining part of the total receipts, ranging between about 14 per cent and 25 per cent of the total receipts is received as capital receipts. The major part

of revenue receipt that is, about 50 to 60 per cent of the state's total receipt- comes from tax sources and about 25 to 30 per cent of the total receipt comes from non-tax sources of revenue.

Figure 2.8: The share of revenue and capital receipts in the total receipt of Jharkhand.

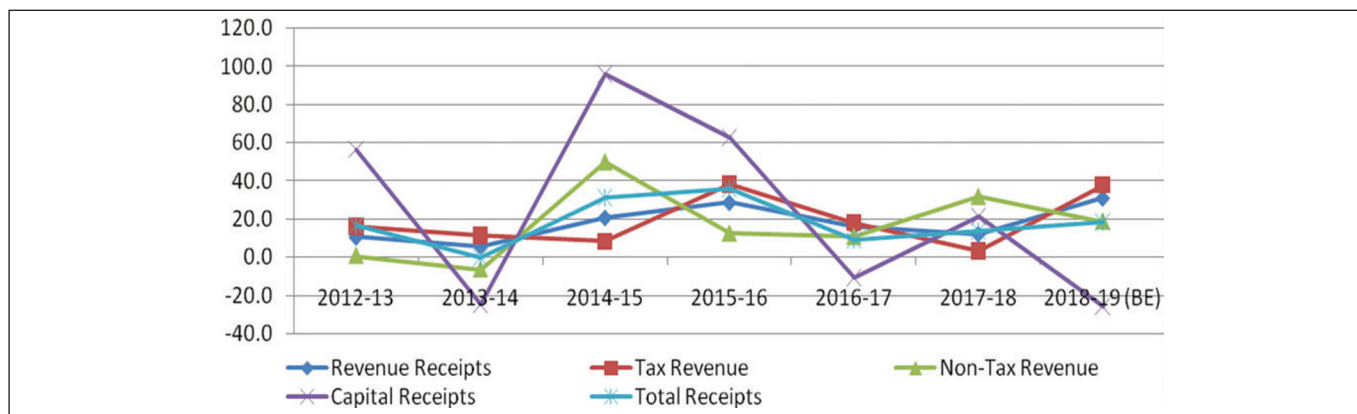


Source: Based on the data provided by the Department of Planning-cum-Finance, GoJ.

The total receipt of the state has increased at an average annual rate (CAGR) of about 17 per cent between 2011-12 and 2017-18. While the capital receipt has grown at the annual rate of about 26 per cent, the revenue receipt and its two major constituents, the tax and non-tax revenue receipts, have grown at the rate of 15 per cent

per annum. In the current financial year (2018-19) the revenue receipt is estimated to grow by 31 per cent and the capital receipt is estimated to fall by 26 per cent. The tax and non-tax revenue receipts are estimated to grow by 38 and 19 per cent respectively.

Figure 2.9: Growth in the Revenue and Capital Receipts in Jharkhand.



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

Revenue Receipts

About two-thirds of the revenue receipts come from the tax sources and the rest from the non-tax sources. Till 2014-15, the state's own taxes would contribute almost half of its total taxes and the remaining half used to come in from of its share in the central taxes. Since 2015-16, because of an increase in devolution from the centre caused by the award of 14th Finance Commission, the revenue from the state's share in central taxes has increased sharply. While between 2011-12 and 2014-15,

the revenue from State's share in central taxes increased at the annual rate (CAGR) of 9.8 per cent, in the year 2015-16, it increased by 68 per cent from the previous year. Since then, the rate of growth in it has remained reasonably high. Between 2014-15 and 2017-18 it has grown at the annual rate of 22.2 per cent. As a result, its share in tax revenue of the state increased from 48 per cent in the year 2014-15 to 58 per cent in the year 2015-16 and 63 per cent in the year 2017-18. It is estimated to be about 58 per cent of the total tax revenue of the state in the year 2018-19.

Table 2.4: The Revenue Receipts of the Government

(₹ in crore)

	2014-15	2015-16	2016-17	2017-18	2018-19 (BE)
State's Own Taxes	10349.81	11489.46	13299.25	12353.44	19250
Land Revenue	83.54	164.35	240.26	156.01	400
Excise	740.16	912.47	961.68	840.81	1000
Registration	530.67	531.64	607.01	469.34	700
Transport	660.37	632.59	681.52	778.37	1100
Commercial Taxes	8335.07	9248.41	10808.78	10108.91	16050
State's Share in Central Taxes	9487.01	15968.75	19141.92	21143.63	27000.00
State's Tax Revenue	19836.82	27458.21	32441.17	33497.07	46250.00
State's Own Non-Taxes	11727.74	13190.65	14612.76	19258.96	22880
Mines	3472.99	4384.43	4094.25	5941.36	7000
Others	862.07	1468.58	1257.16	1905.31	2030
Grants in Aid (GoI)	7392.68	7337.64	9261.35	11412.29	13850
Total Revenue Receipts	31564.56	40648.86	47053.93	52756.03	69130.00

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

The revenue from the state's own taxes has increased at an annual rate of about 10 per cent between 2011-12 and 2016-17. Between 2011-12 and 2014-15 it increased at an annual rate of 14.2 per cent, in the year 2015-16 and

2016-17 it grew at the rate of about 11 and 16 per cent per annum, respectively. After declining by about 7 per cent in the year 2017-18, it has been estimated to grow by about 28 per cent in the current financial year.

Figure 2.10: Composition of Tax revenue

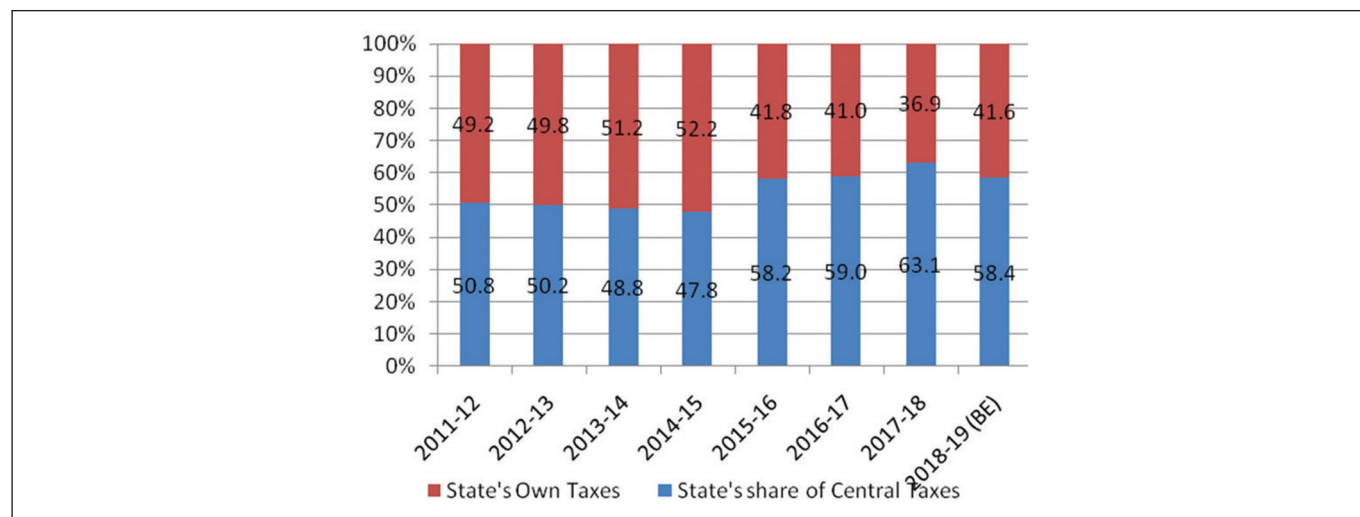
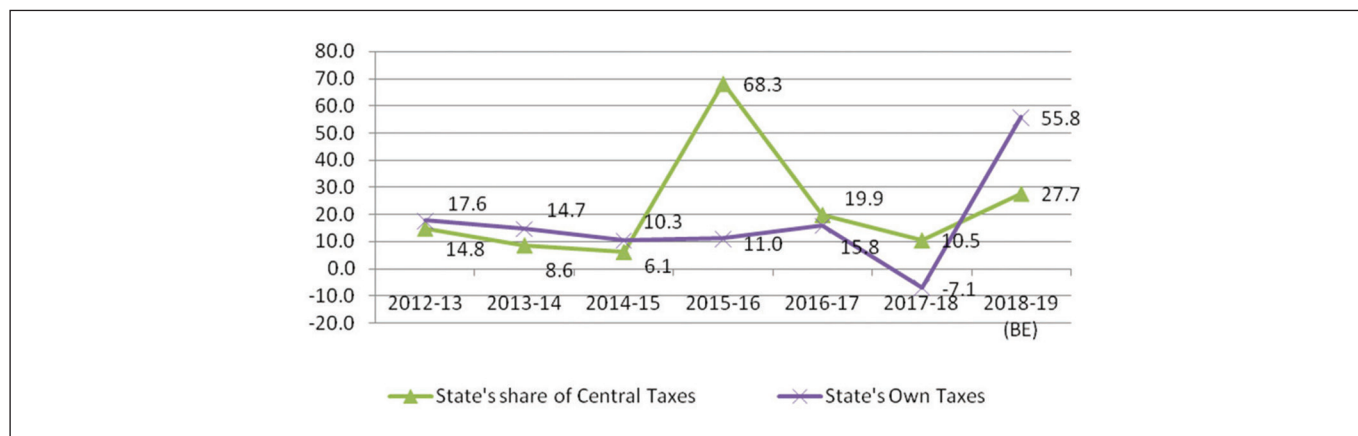


Figure 2.11: Growth in Revenue from the State's Own Taxes & the State's Share in Central Taxes



State's Own Taxes: Commercial taxes is the main source of own tax revenue of the state. It constitutes of more than 80 per cent of its own tax revenue. About 8 thousand crore rupees were collected from this source in the year 2014-15. In the years 2015-16 and 2016-17 it grew at the rates of 11 per cent and 16 per cent, respectively. Growing at these rates, the revenue from commercial taxes became more than 10 thousand crore rupees in the years 2016-17 and remained almost at the same level in the year 2017-18. In the current financial year about 16 thousand crore rupees has been estimated to be collected through commercial taxes. Transport, state excise and registration are the other important sources of revenue from the state's own taxes. Their contributions to State's own tax revenue in the year 2014-15 were 7.4, 6.2 and 5.1 per cent, respectively. The share of revenue from transport and registration in the state's own tax revenue has decreased over the years. This has happened because their growth rates, on an average, have remained less than that of that of the commercial taxes or the state's own taxes. While the State's own taxes grew at an annual rate of 13.4 per cent and the commercial taxes at the rate of 13.9 per cent, the tax revenues from transport and registration grew at the 1.6 and 7 per cent, respectively. While in the year 2017-18, the tax revenue from transport increased at the rate of about 14 per cent that from registration decreased by 22.68 per cent. One of the important reasons for the decrease in the revenue from registration is the concessions given to the women in their first registration of land or house of value up to ₹ 50 lakh. In the current financial year (2018-19) they are estimated to grow by 41.32 and 49.15 per cent respectively.

State excise duty increased at an average annual rate of 14 per cent per annum between 2014-15 and 2016-17. As a result its share in the state's own tax revenue remained constant at about 7 per cent throughout this period. It however, showed a negative growth of 12.57 per cent in the year 2017-18 because of which its share in the state's own tax revenue decreased from 7.2 in the previous year to 6.8 per cent this year. The decline in the revenue from excise duty was mainly because of a policy change in which the retail sale of liquor was taken over by the state government. As a result, the number of outlets got reduced drastically and the revenue from state excise-duties fell significantly. Since 2017-18 was the first year of operation, it may be considered as a temporary effect and revenue performance is likely to improve as some of the constraints are being progressively removed. The revenue for state excise duty is estimated to grow by 18.93 per cent in the current financial year (2018-19). Its share in the state's own tax revenue is going to decline further because its growth is estimated to be slower than the growth in the revenue of commercial taxes.

GST in the State: Most of the commercial taxes have been subsumed into GST from July, 2017. The protected revenue for Jharkhand per month for the year 2017-18 has been calculated to be ₹ 694.31 Crores². It has a shortfall of about 26% in its revenue because of the implementation of GST which is being covered through GST compensation. In the financial year 2017-18 it received ₹ 1649 crores in form of GST compensation and ₹55.4 crore in the form of CST compensation. The total collection from this source thus amounts to about ₹ 6 thousand crore.

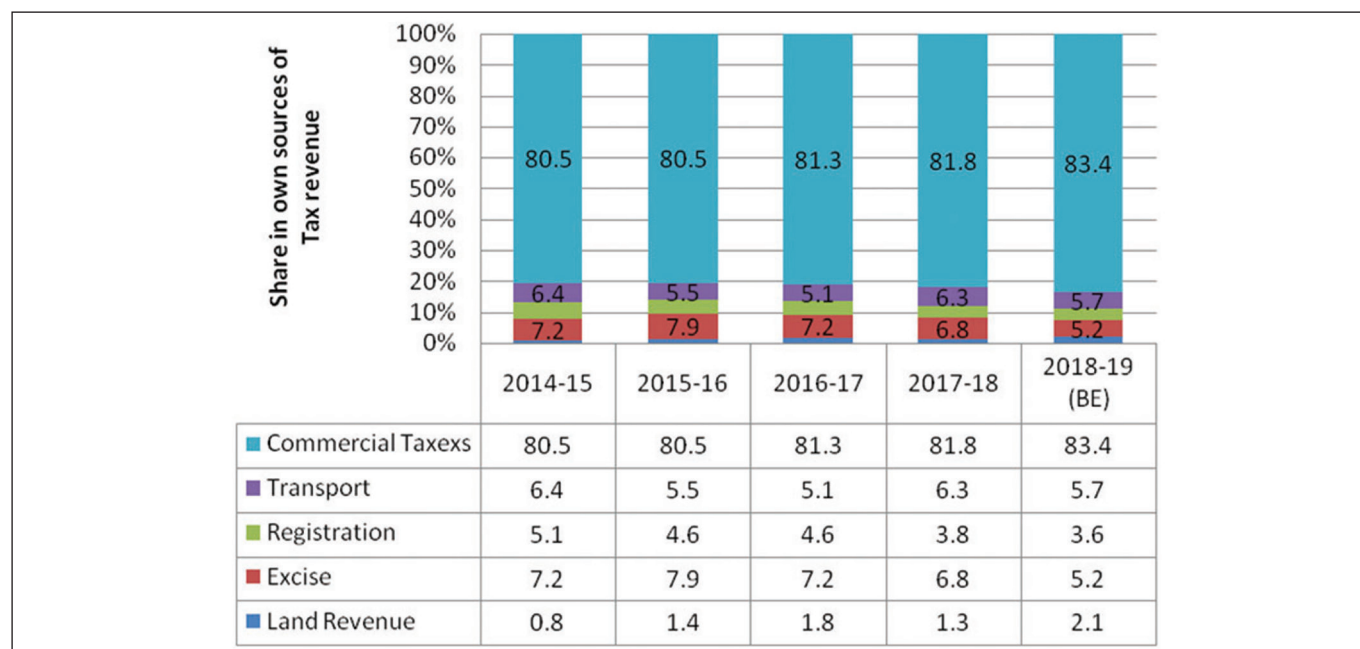
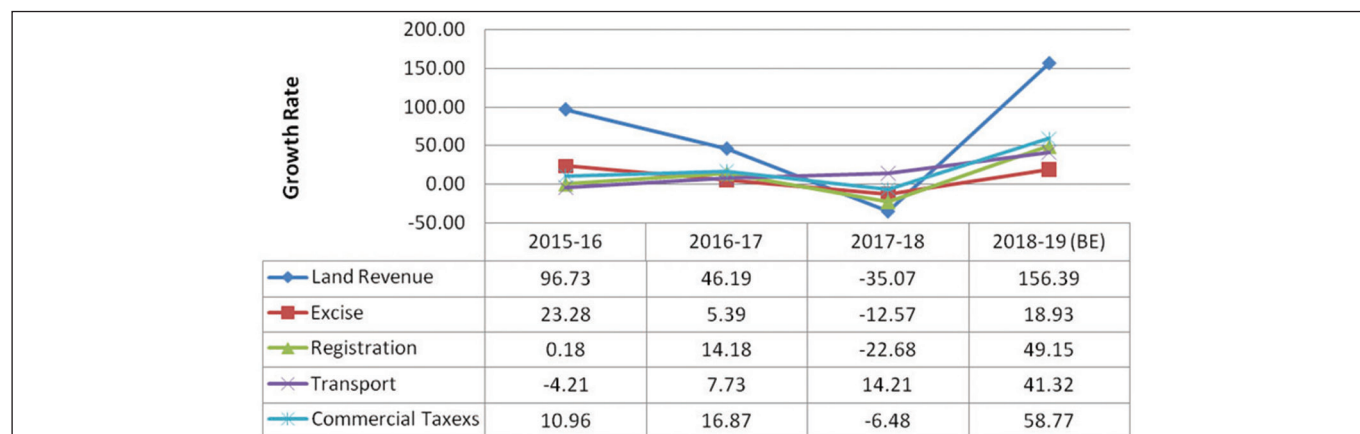
² As per the GST Compensation Act of 2017 the protected revenue of a state has been calculated by assuming a 14% annual growth in the 2015-16 (base year) actual revenues from the taxes that have been merged in SGST. The base year revenue in Jharkhand from such taxes was ₹ 6,411.00 crores. A 14 per cent annual growth in it made it equal to ₹ 8331.74 crores for the whole year ($₹ 6,411.00 * (1+0.14)^2$) or ₹ 8331.74/12 = ₹ 694.31 crore per month

Table 2.5: Revenue collection from GST, and GST & CST compensation.

(₹ in crore)

Months	July 2017	August 2017	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018	March 2018	Total
GST Collection	592.4	461.2	364.9	473.2	490.3	494.6	489.7	509.7	559.0	4435.1
Compensation Received	--	313.0	--	489.0	--	375.0	--	369.0	103.0	1649.0
CST compensation									55.4	55.4
Total Revenue Collected	592.4	774.2	364.9	962.2	490.3	869.6	489.7	878.7	717.4	6139.4

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

Figure 2.12: Composition of Own Sources of Tax revenue

Figure 2.13: Growth in own sources of tax revenue


State's Receipts from Non-Taxes

The state's non-tax revenue was about ₹ 11 thousand 7 hundred crores in the year 2014-15. Growing at an average rate of 18 per cent per annum between 2014-15 and 2017-18, it grew to about ₹ 19 thousand 2 hundred 50 crores in the year 2017-18 – an addition of about seven and a half thousand crore rupees in three years. The revenue from mines increased at an average annual rate of about 20 per cent, from other non-tax sources by about 30 per cent and the Grants in Aid of the

government of India by about 16 per cent in this period. Of the total additional resources mobilised from the state's non-tax revenue in the period 2014-15 to 2017-18, 53 per cent has been contributed by Grants in Aid of the government of India, 33 per cent by the royalty from minerals and 14 per cent by other sources. In the current financial year the revenue from non-tax sources has been estimated to grow by about 19 per cent, mines by about 18 per cent, Grants in Aid from government by 21 per cent and other sources by 6.5 per cent.

Figure 2.14: The Composition of Non-Tax Revenue

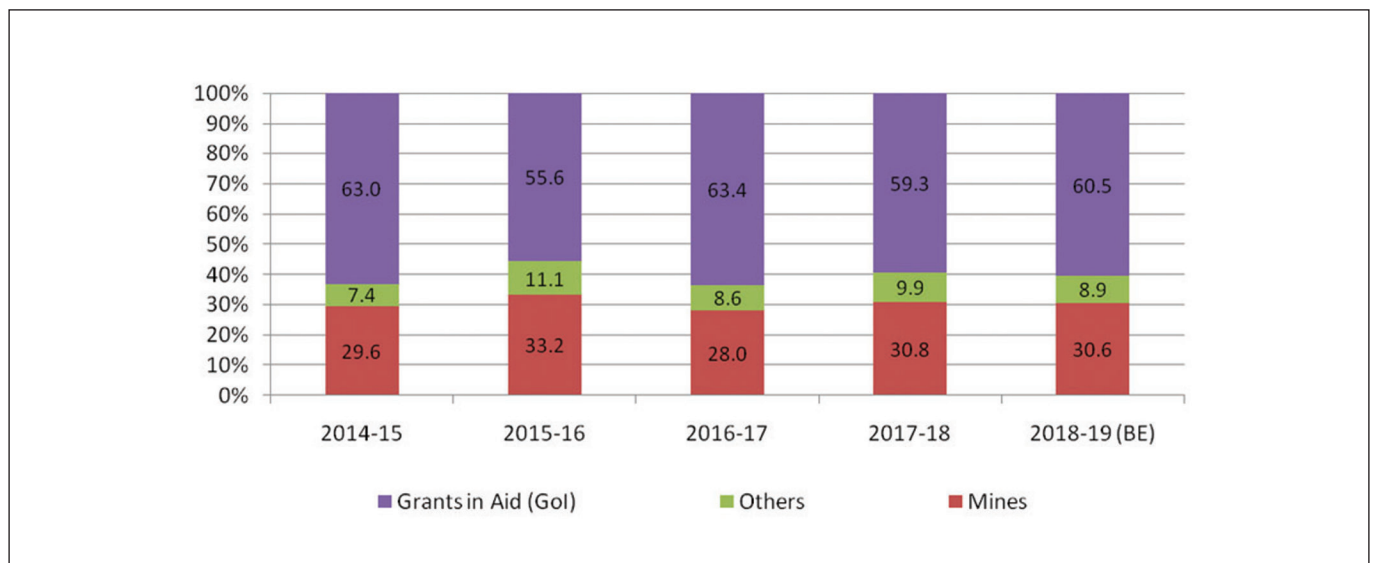
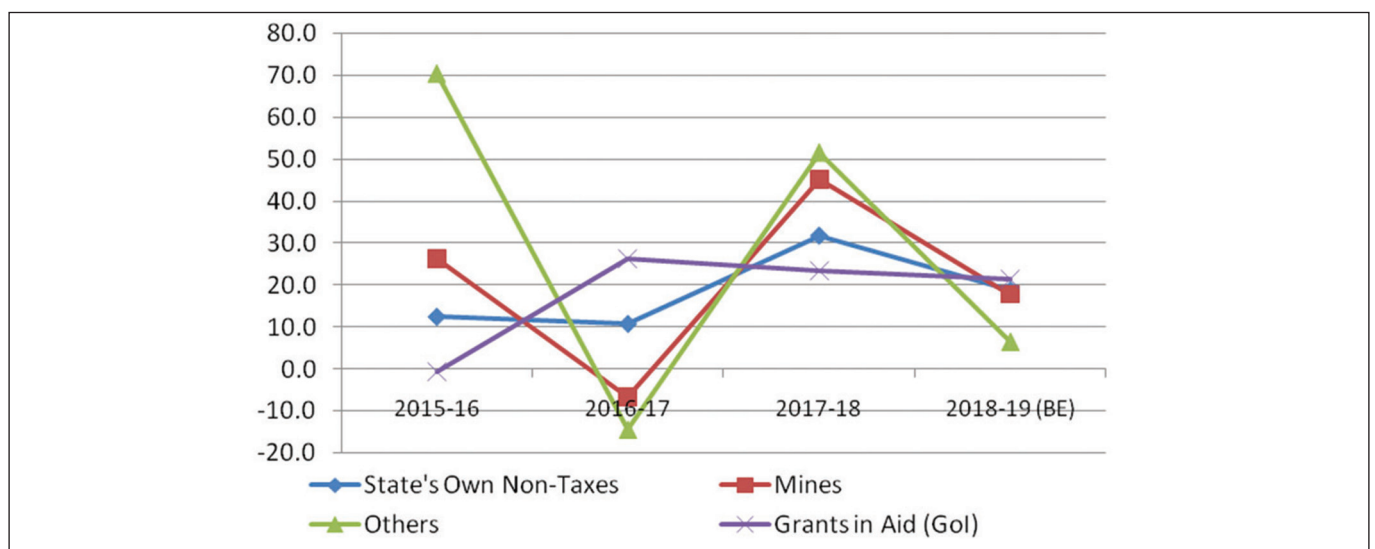


Figure 2.15: The Growth Rate of Non-Tax Revenue



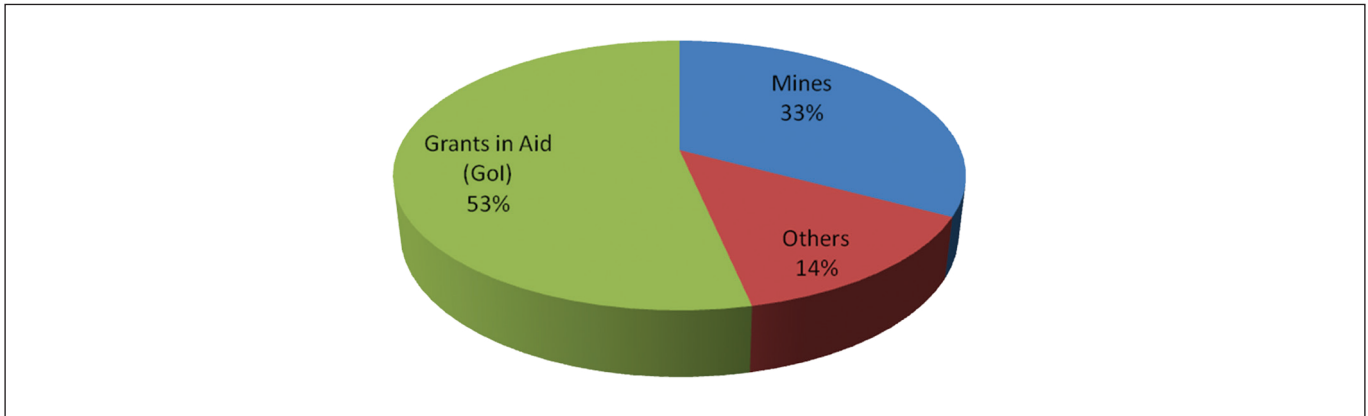
In comparison to 2014-15, an additional resource of about seven and a half thousand crore rupees has been mobilised in the year 2017-18 (a total of ₹ 11879 crore between 205-16 and 2017-18). More than half of the

additional resources came from Grants in Aid, about one third from mines and the remaining 14 per cent from the other non-tax sources.

Table 2.6: The Growth Rate of Non-Tax Revenue

	2015-16	2016-17	2017-18	2018-19 (BE)
Mines	26.2	-6.6	45.1	17.8
Others	70.4	-14.4	51.6	6.5
Grants in Aid (GoI)	-0.7	26.2	23.2	21.4
State's Own Non-Taxes	12.5	10.8	31.8	18.8

Figure 2.16: The contribution of sources of non-tax revenue to the additional resources mobilised by it in the year 2017-18 in comparison to 2014-15

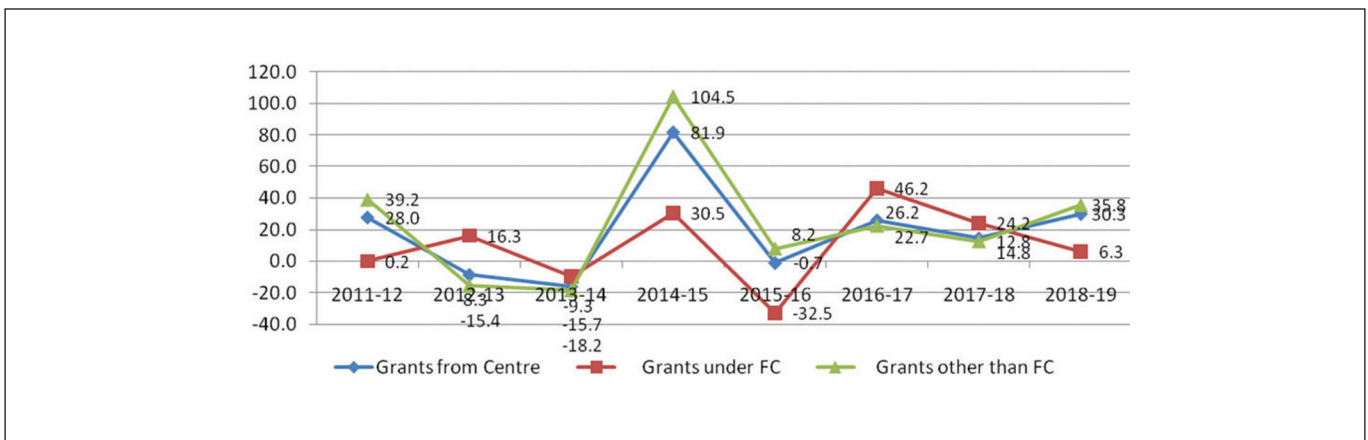


Grant in Aid from GoI: In the year 2014-15, the state received ₹ 7392.68 crores of Grants in Aid from the government of India. Out of it ₹ 1623.77 crores was the Finance Commission (FC) Grant (as per the recommendations of 13th FC) and the remaining ₹ 5768.91 crores was the non FC Grants from the centre. The total Grants in Aid to the state declined by 0.7 per cent in the year 2015-16. This was mainly because of the decrease in the Finance Commission Grants to the State on the recommendations of the 15th Finance Commission. The Finance Commission Grants decreased by 32.5 per cent in the year 2015-16. It however, has improved since then. Even then, during

the 14th Finance Commission period, it has grown at a rate lower than that during the 13th Finance Commission Period. Between 2010-11 and 2014-15, it grew at an average annual rate of 8.3 per cent (between 2011-12 and 2014-15 it grew at a CAGR of about 11 per cent) while between 2014-15 and 2017-18 it grew at the average annual rate of about 7 per cent.

The Non-Finance Commission Grants has increased at a faster rate than the Finance Commission Grants. During the 13th Finance Commission period (2010-11 to 2014-15) it grew at the compound average annual (CAGR) of 18.5 per cent and between 2014-15 and 2017-18 it grew at the CAGR of 14.4 per cent.

Figure 2.17: Growth in Grants in Aids from the Government of India.



Royalty from Minerals

The state being rich in minerals gets a sizable revenue from the Royalty from its minerals. The total royalty collected from minerals in the state was about 19

hundred crores in the year 2011-12 which rose to about 34 hundred crores in the year 2014-215 and 59 hundred crores in the year 2017-18. It grew at a compound average annual rate of about 20 per cent in this period.

Box 2.1 : Royalty from Minerals

The royalty on major minerals is fixed by the Central government which is then collected and retained by the state governments. Royalties collected directly contribute to the Mineral Revenue of the state.

Section 9 (3) of the MMDR Act 1957 allows a revision of royalty rates after 3 years of the last revision. However, the rates for both Coal and Non Coal major minerals have not been revised for long resulting in a rational loss of revenue for the state. The Royalty for coal was last revised in May 2012 and non-coal major minerals in October 2014 (Department of Mines and Geology, Government of Jharkhand).

If Royalty rates on coal had been revised to 16 per cent ad- valorem in the year 2015, the state would have gained an additional revenue of ₹1243 crores between 2015-16 and 2017-18.

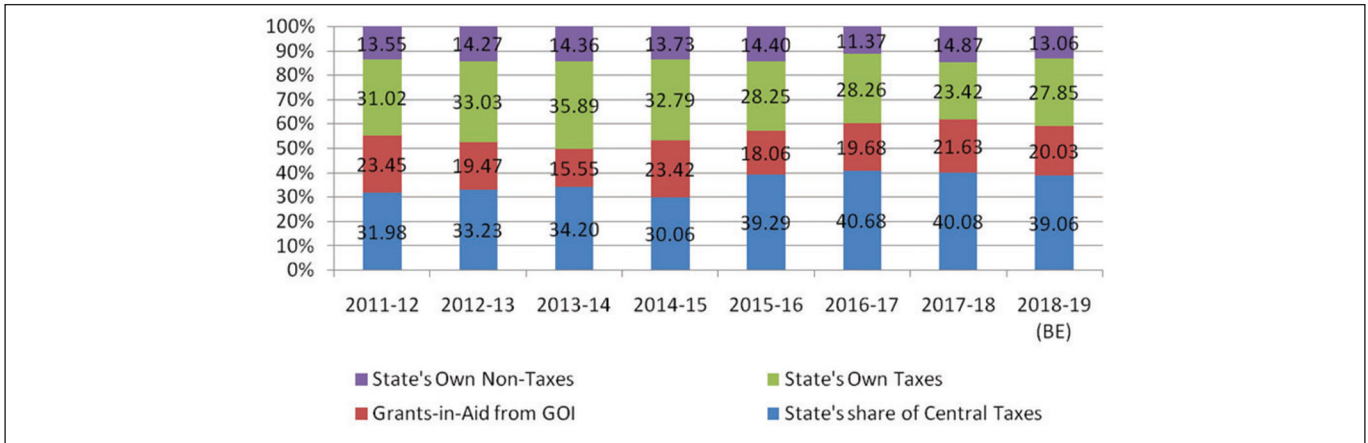
The existing royalty of coal is 14 per cent ad-valorem on the price of coal, as reflected in the invoice, excluding taxes, levies and other changes.

Share of Centre and State in Revenue Receipts of the State

Part of the total revenue receipts of the state government is generated within the state and part of it comes from the central government. The share in central taxes is part of the tax revenue and Grants-in-Aid from GoI is part of the non-tax revenue receipts of the state. The two of them contribute to about 60 per cent to the revenue receipts of the state. About 20 per cent of the revenue receipts of the state come from the centre in the form of Grants in aid and about 40 per cent as share in the central taxes. The contribution of the centre to the total revenue receipts of the state has changed since 2015-16 because of the implementation of the recommendations of the 14th Finance Commission. In the year 2014-15, the state's share of Central Taxes contributed to about 30 per cent to the total revenue receipts of the state and the Grants-in-Aid of Government of India about 23 per cent. Since 2015-16, the share of the former has increased because of an increased devolution and increase in State's inter se share and that of the latter

has decreased because of discontinuation of the sector specific to states by the centre. The contribution of the state's share of Central Taxes to the total revenue receipts of the state increased to about 39 per cent and that of Grants in Aids of GoI decreased to about 18 per cent in the year 2015-16. Since then, the contribution of the state's share of Central Taxes to the total revenue receipts of the state has almost remained constant and that of Grants in Aids of GoI has improved. In the current financial year (2018-19) they are estimated to be about 39 and 20 per cent of the total revenue receipts of the state respectively. The contribution of the state's own taxes to the total revenue receipts of the state, on the other hand, has decreased over the years. It contributed approximately 33 per cent of the state's total revenue receipts until 2014-15 which decreased to about 28 per cent in the year 2015-16 and 2016-17. After a decline in the year 2017-18, the state's own taxes are estimated to regain the percentage of its contribution to the same 28 per cent.

Figure 2.18: Share of Centre and State in the total Revenue Receipts of the State



Box 2.2 : The Fourteenth Finance Commission and Finances of Jharkhand

One of the core tasks of a Finance Commission, as stipulated in Article 280 (3) (a) of the Constitution, is to make recommendations regarding the distribution between the union and the states of the net proceeds of the Union taxes except surcharges and cess levied for specific purposes. Besides the devolution of central taxes, as mentioned above, the Finance Commission, under Article 275 of the Constitution is mandated to recommend the principles as well as the quantum of grants to those states which are in need of assistance. Different sums may thus be fixed for different States.

The 14th FC radically enhanced the share of the states in the central divisible pool from the prevailing 32 per cent to 42 per cent - the biggest ever increase in vertical tax devolution. The last two Finance Commissions, the Twelfth (period 2005- 10) and the Thirteenth (period 2010-15) had recommended a state share of 30.5 per cent (increase of 1 per cent) and 32 per cent (increase of 1.5 per cent) respectively in the central divisible pool. It caused a sizable increase in all states’ share in central taxes.

The 14th FC also proposed a new horizontal formula for the distribution of the states’ share in divisible pool among the states. In comparison to the 13th FC two new variables-forest cover and change in population between 1971 and 2011 were included and one old variable- fiscal discipline was excluded and the weights assigned to the variables were changed in the 14th FC. Consequently, Jharkhand’s share in inter se transfer has increased from 2.802 per cent in 13th FC to 3.139 per cent in 14th FC.

While increasing the devolution, the 14th Finance Commission recommended for the discontinuation of the sector specific grants. Only three types of grants were approved by it – grants to local bodies, grants for disaster management and grants for revenue deficit.

Jharkhand gained because of increased devolution and increase in its share in inter se transfer. Jharkhand received an additional benefit of ₹6482 crore in the year 2015-16. According to one estimate (<https://www.indiabudget.gov.in/es2014-15/echapv011-10.pdf>), Jharkhand received an additional benefit ₹1878 per capita in the year 2015-16 over 2014-15.

Receipts as a percentage of GSDP

The state’s total receipt along with all its components, as a percentage of its GSDP has increased over the years especially since 2015-16. The total receipt of the state which was about 17 per cent of the GSDP in the year

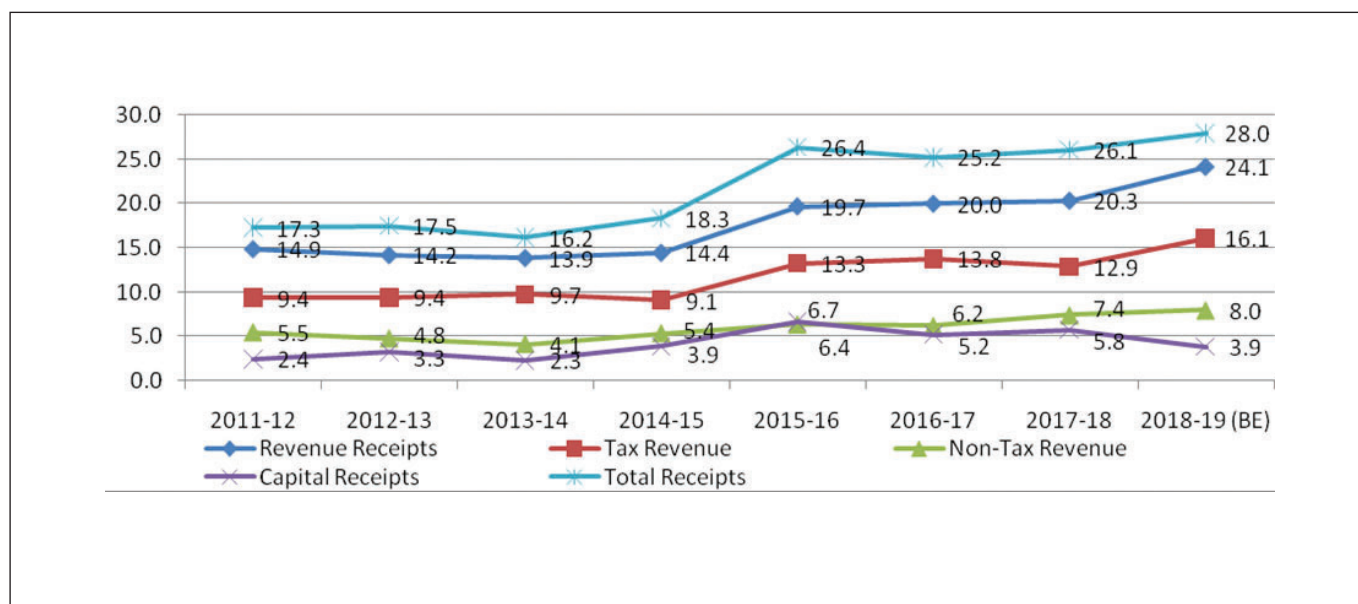
2011-12 increased to about 26 per cent in the year 2015-16. It is estimated to be about 28 per cent of the GSDP in the current financial year. Both the revenue and capital receipts, as a percentage of GSDP have increased in this period, but the major change has taken place in revenue receipts, especially in the tax revenue. The tax revenue

was about 9 per cent of the GSDP of the state between the years 2011-12 and 2014-15. It increased to about 13 per cent of the GSDP in the year 2015-16 and is estimated to be about 16 per cent of the GSDP in the current financial year. The main reason for increase in the tax revenue is increase in the state’s share in central taxes on the recommendations of the 14th Finance Commission. The non-tax revenue as a percentage of GSDP, on the other hand, improved only marginally – only by about 1 percentage point – from about 5.4 per

cent to 6.7 per cent.

The capital receipt as a percentage of GSDP increased from 3.9 per cent in the year 2014-15 to 6.7 per cent in the year 2015-16 but decreased to 5.2 per cent in the year 2016-17. In the current financial year it is estimated to be 3.9 per cent of the GSDP. The increase in capital receipts in the year 2015-16 was caused by the loan taken by the state under Ujjwal Discom Assurance Yojana (UDAY) scheme. The state received a debt of Rs 5,553.37 crore this year under UDAY scheme.

Figure 2.19: The Total Receipts and their Components as a percentage of GSDP



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

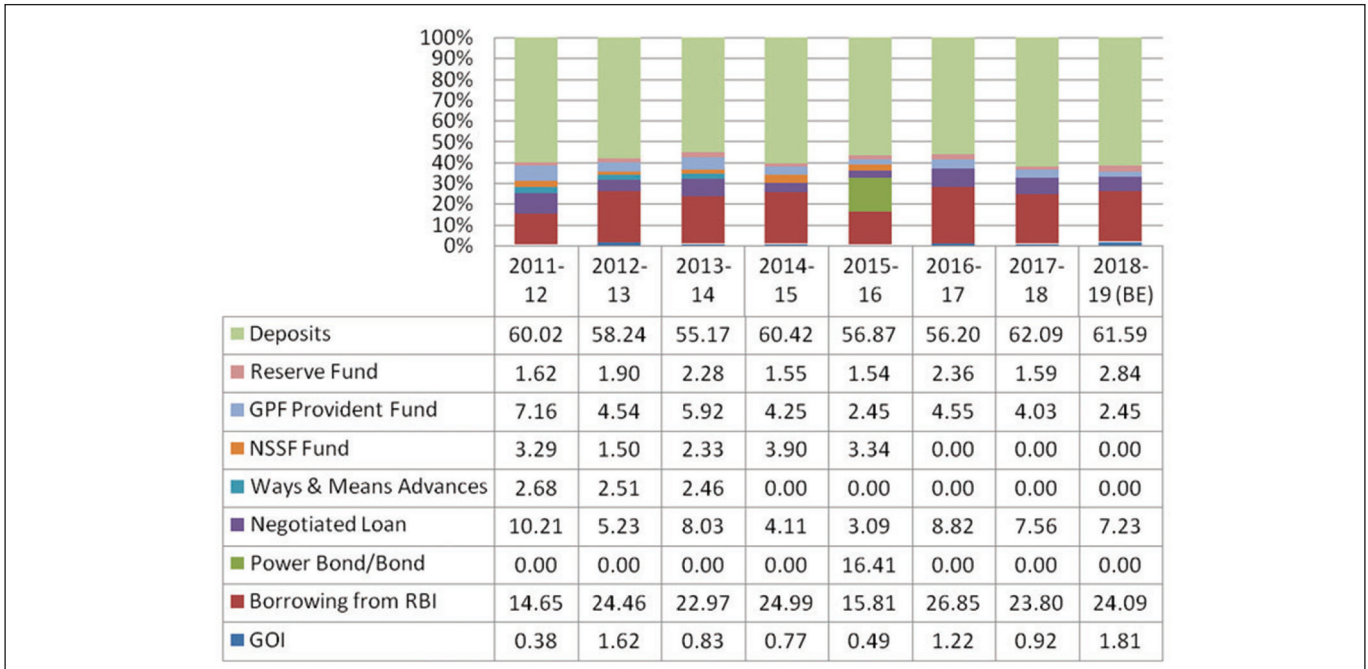
Liabilities of the state

The outstanding liabilities of the state include: borrowings from the government of India and RBI, negotiated loans, ways & means advances, National Small Saving Fund (NSSF), General Provident Fund (GPF), Reserve Funds, deposits, power bond/bonds etc. The year wise debt position of Jharkhand has been shown in the table and figure below. The main sources of borrowing for the state are deposits, borrowing from the Reserve Bank of India and negotiated loans. They account for more than 80 per cent of the gross borrowing of the state. Since 2016-17, more than 90 per cent of the gross borrowing of the state has been taken from these three sources. Ways and means advances have been discontinued from 2014-15 and the borrowings from NSSF have been discontinued from 2016-17. Fund

through power bonds has been raised only once in the year 2015-16 under UDAY scheme.

The composition of Gross Borrowing has mostly remained constant in the last seven 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 seven years. About 60 per cent of the gross borrowing of the state came from ‘Deposits’ in the year 2011-12, its share to the gross borrowing is estimated to be almost the same in the year 2018-19 – about 61.59 per cent. The share of borrowing from the RBI has remained about 24 per cent, that of GPF provident fund about 4 per cent and that of reserve fund about one and half per cent during the greater period between 2011-12 sand 2018-19.

Fig 2.20: 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 GSDP ratio, the cumulative debt to 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 borrowing ceiling of the state since 2011-12. Except for the year 2015-16, 2016-17 and 2017-18, the net borrowing of the state has been well within the borrowing ceiling of the state. In the year 2015-16 the state crossed the borrowing ceiling because of the inclusion of the loans taken under UDAY scheme was worth Rs 5553.37 crore. Since the UDAY loan has to be excluded, the net borrowing comes to be almost within the ceiling limit. Though the net borrowing of the state crossed the borrowing ceiling in

the years 2016-17 and 2017-18, in the current financial year it has remained well within the borrowing ceiling of the state.

A low debt to GSDP ratio indicates that the economy produces and sells goods and services sufficient to pay back its debts without incurring further debt. A level of 35 per cent is sustainable for any economy. Jharkhand has been keeping well within this limit. It was less than 20 per cent of GSDP till 2014-15 but has increased to about 27 per cent of GSDP in the year 2015-16 and estimated to be about 29.7 per cent in the current financial year.

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 was more than 10 per cent of its revenue receipt till 2013-14. It has started decreasing since then. In the current financial year, it is estimated to be about 3 per cent of the total revenue receipts of the state.

Table 2.7: Debt Sustainability and Debt as a percentage of GSDP)

(₹ in crore)

Year	Gross Borrowing	% of Gross Borrowing to GSDP	Net Borrowing	% of Net Borrowing of GSDP	Cumulative Debt	Total Debt / GSDP Ratio	% of Interest to Revenue receipts
2011-12	8561.46	5.67	2008.71	1.33	30663.81	20.32	10.8
2012-13	14717.81	8.42	4205.21	2.41	34868.98	19.96	10.2
2013-14	12840.67	6.81	2724.87	1.45	37593.86	19.94	11.1
2014-15	19808.53	9.06	5975.23	2.73	43569.07	19.94	9.2
2015-16*	33843.38	16.38	12961.5	6.27	56530.57	27.36	8.2
2016-17	19192.63	8.15	10296.5	4.37	66826.97	28.37	8.8
2017-18	25205.53	9.71	10268.1	3.95	77095.04	29.69	8.8
2018-19 (BE)	33215.52	11.59	8139.05	2.84	85234.09	29.74	3.2

Note : * ₹ 5553.37 crore was taken under UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2016-16.

Source: The Department of Planning cum Finance, GoJ

Table 2.8: Year Wise Debt Position of Jharkhand

Year (Actual)	GOI	Borrowing from RBI	Power Bond/	Negotiated Loan	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
15.11.2010 (Balance)												1490.04		28655.1
2011-12	32.53	1254.05	0	873.98	229.19	281.5	613.38	138.58	5138.27	8561.46	6552.75	2008.71	4527.53	30663.81
2012-13	238.7	3600	0	770.33	368.79	221.2	667.69	279.81	8571.31	14717.81	10512.6	4205.21	4527.53	34868.98
2013-14	106.2	2950	0	1031.56	315.58	299.6	760.2	293.19	7084.37	12840.67	10115.8	2724.87	4527.53	37593.86
2014-15	153.2	4950	0	814.23	0	772.7	842.56	307.85	11968	19808.53	13833.3	5975.23	6393.00	43569.07
2015-16*	165	5350	5553.4	1044.71	0	1132	830.1	521.68	19246.9	33843.38	20881.9	12961.5	6360.00	56530.57
2016-17	234.3	5154	0	1693.13	0	0	872.6	452.88	10785.7	19192.63	8896.15	10296.5	7993.00	66826.97
2017-18	231.6	5999.65	0	1905.59	0	0	1016.42	401	15651.3	25205.53	14937.45	10268.1	8383.55	77095.04
2018-19 (BE)	600	8000	0	2400	0	0	814.63	943.19	20457.7	33215.52	25076.47	8139.05	10052.00	85234.09

Note : * ₹ 5553.37 crore was taken under UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2016-16.

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

Deficit position of the state

The Fiscal Deficit of Jharkhand has been in compliance with the FRBM target of 3.0 per cent over the years, except for the year 2015-16, 2016-17 and 2017-18. In the year 2016-17 it exceeded the FRBM targets mainly because of borrowing under UDAY scheme. But since the borrowings under UDAY scheme are not to be reckoned against the normal permissible net borrowing ceiling of the state, the fiscal deficit of this year is almost within the permissible limits of FRBM. The budget

estimates of 2018-19 show a decline in the fiscal deficit to 2.61 per cent of GSDP which is well within the limits of FRBM targets.

The Revenue Deficit is mostly in the negative since 2011-12 which shows that the state mostly has a surplus of revenue. The primary and fiscal deficit had spiked in the year 2015-16, and remained high in the year 2016-17 (because of borrowing under UDAY scheme) but they are estimated to decline in the current financial year, 2017-18 (BE).

Fig 2.21: The trend in Revenue, Fiscal and Primary Deficit as a percentage of GSDP

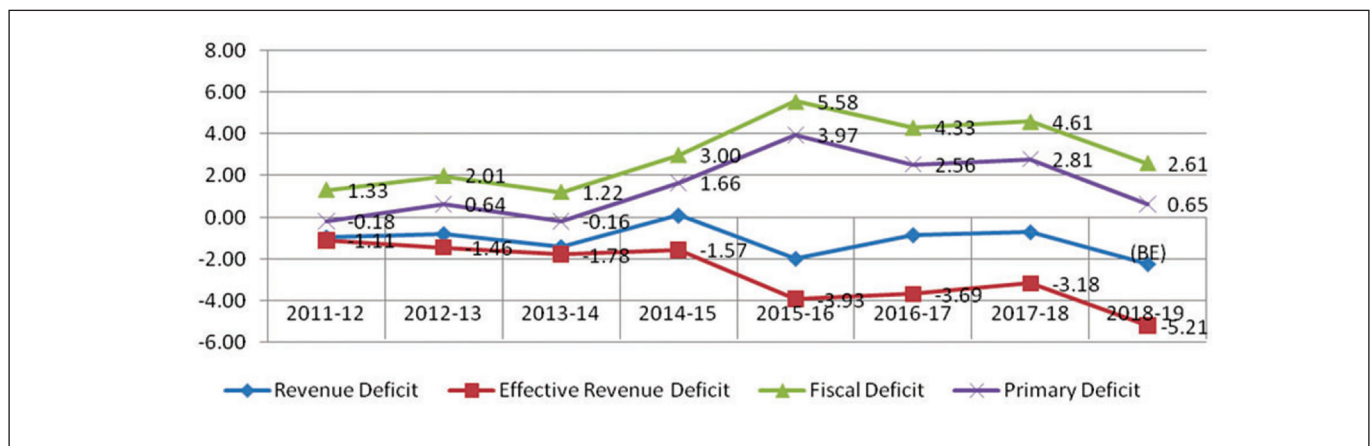


Table 2.9: Deficit position of Jharkhand (2011-12 to 2016-17 in ₹ crore)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (BE)
Revenue Deficit	-1427.87	-1369.68	-2664.90	230.34	-4085.52	-1964.89	-1803.96	-6385.56
Revenue Deficit as % of GSDP	-0.95	-0.78	-1.41	0.11	-1.98	-0.83	-0.69	-2.23
Effective Revenue Deficit	-1672.64	-2544.06	-3356.84	-3421.75	-8115.93	-8703.17	-8245.67	-14927.61
Effective Revenue Deficit as % of GSDP	-1.11	-1.46	-1.78	-1.57	-3.93	-3.69	-3.18	-5.21
Fiscal Deficit	2000.58	3506.44	2306.19	6564.00	11521.93	10192.41	11958.01	7494.44
Fiscal Deficit as % of GSDP	1.33	2.01	1.22	3.00	5.58	4.33	4.61	2.61
Primary Deficit	-266.50	1115.19	-308.25	3634.85	8201.85	6020.16	7296.33	1863.40
Primary Deficit as % of GSDP	-0.18	0.64	-0.16	1.66	3.97	2.56	2.81	0.65
GSDP**	150918	174724	188567	218525	206613	235560	259664	286598

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

*The loan amount of Rs 5553.57 crore taken under the UDAY scheme in FY 2015-16 has been taken into calculation. But as per the extant guidelines, the borrowings under UDAY are not to be reckoned against the normal permissible net borrowing ceiling of the state.

** The GSDP values are at current prices. The GSDP of the year 2016-17 is provisional and those of 2017-18 and 2018-19 are projected. The projections have been done by the Centre for Fiscal Studies, Government of Jharkhand

Conclusion

The expenditure of the state has increased at the compound annual growth rate (CAGR) of 17.2 per cent between 2011-12 and 2017-18. The total expenditure as a percentage of GSDP has also increased over the years - from 16 per cent of GSDP in the years 2013-14 to about 26 per cent in the year 2017-18 and about 28 per cent in 2018-19 (BE).

The total receipt of the state has also increased at an average annual rate (CAGR) of about 17 per cent between 2011-12 and 2017-18. Both the revenue and the capital receipts of the state have increased over a period of time. While the revenue receipt has increased by about two and a half times the capital receipt has increased by about 4 times between 2011-12 and 2017-18.

The implementation of the 14th Finance Commission in the year 2015-16 has brought drastic change in the total revenue receipts of the state. The revenue from the state's share in the Central Taxes has increased and that of the Grants-in-Aid has decreased because of the

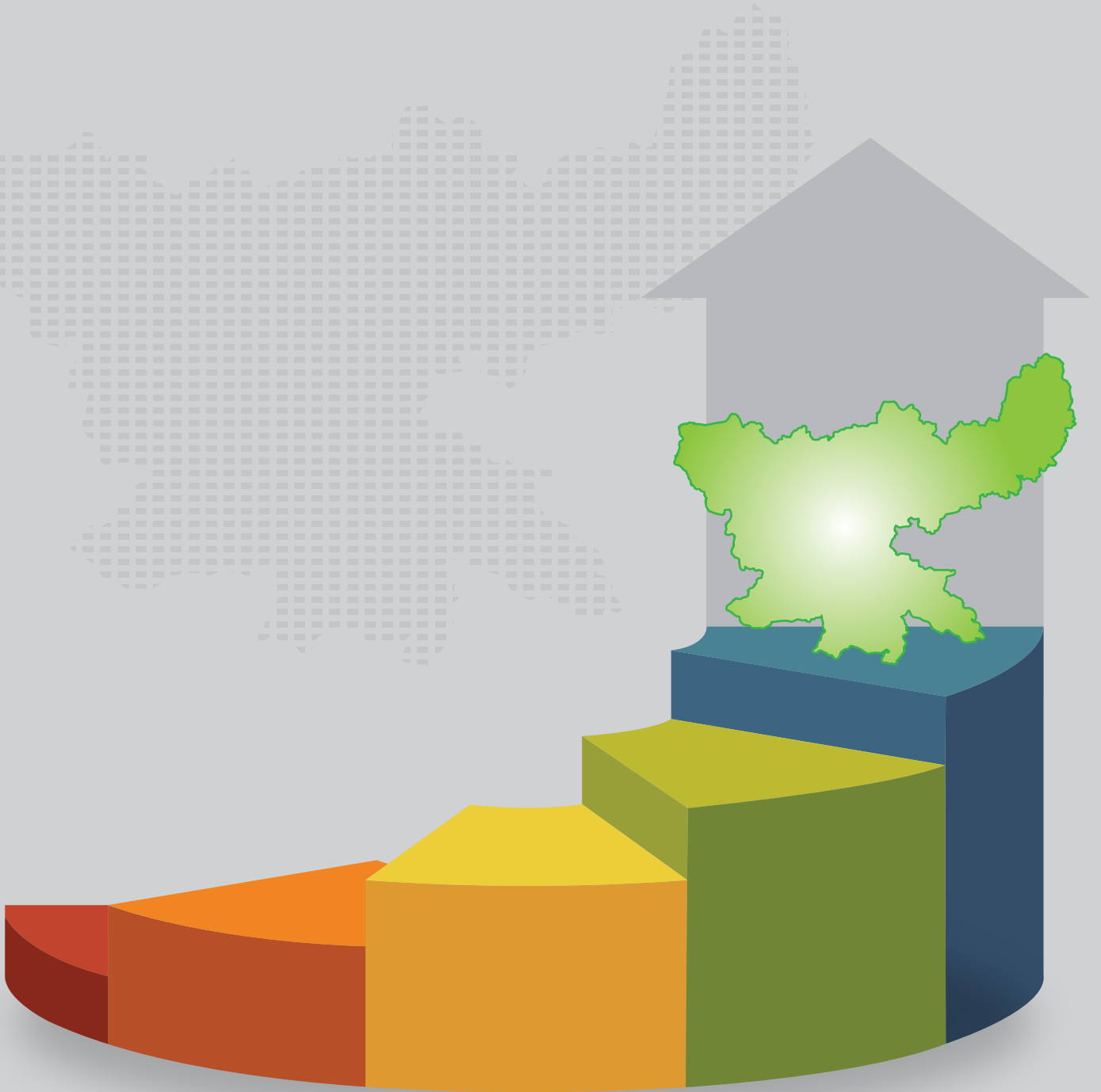
recommendations of the 15th FC. In the year 2014-15, the state's share of Central Taxes contributed about 30 per cent to the total revenue receipts of the state and the Grants-in-Aid of Government of India about 23 per cent. In the year 2015-16, the share of the former increased to about 39 per cent and that of the latter decreased to about 18 per cent. In the current financial year (2018-19) they are estimated to be about 39 and 20 per cent of the total revenue receipts of the state, respectively.

The state's total receipt along with all its components, as a percentage of its GSDP, has increased over the years, especially since 2015-16.

The net borrowing of the state, in most of the years, is well within the borrowing ceiling of the state. The debt GSDP ratio is less than 30 per cent and the interest revenue receipt ratio is less than 10 per cent. The debt of the state thus, is sustainable. Except for the year 2014-15 the state has always been in surplus of revenue. The fiscal deficit of the state has also mostly complied to the FRBM targets.

III

INSTITUTIONAL FINANCE



Adequacy and accessibility of capital are pre-conditions to achieve a desired level of economic growth. GSDP Growth Rate of Jharkhand has been phenomenal as it has always remained among the top class performer-states in India. Jharkhand has an ever broadening and deepening network of financial institutions which cater to the financial needs of various developing and emerging sectors in the economy.

The network coverage of banking institutions in Jharkhand has improved from 6.22 branches per one lakh people in 2011 to 8.06 branches in 2018. Similarly, the coverage of ATM networks has also increased from 3.63 ATMs per lakh population in 2012 to 9.53 ATMs in 2018. Accordingly, the service deliveries by financial institutions have become much better in the state. The deposits have grown by 5.78% whereas, the growth rate in credit climbed up to 10% in between June 2017 and June 2018. The C-D ratio has also improved from 57.04% to 59.35% between the same periods. However, this is still less than the RBI benchmark figure of 60%. The deposit to GSDP and credit to GSDP ratio have also improved significantly from 47.95% to 89.41% and 23.29% to 53.92% respectively during 2011 to 2018. As compared with the figures of June 2017, the share of Agricultural Advances to the Total Advances has slightly fallen from 15.82% to 15.55% and remained less than the RBI benchmark of 18%. The share of Weaker section Advances in Total Advances has marginally declined from 18.46% to 17.19% whereas, the share of advances to women in Total advances has increased from 11.86% to 13.19% in June 2018. The gross non-performing assets (NPAs) ratio — bad loans as a percentage of total loans — of the banking system in Jharkhand was estimated at 5.87% in June 2018. However, it is improving continuously as it was 6.11% in as March 2018 and 6.50% in March 2016. The recent year performances of schemes like PMMY, DAY-NRLM and Stand-Up India loans have been impressive in the state.

The present chapter gives an overview of the current status of financial institutions with their financial operations and evaluates their performances in the recent years to highlight the role of institutional Finance in building a prosperous Jharkhand.

Development of Financial Infrastructures

The speed of rotation of funds from surplus sector to

deficit sector depends on the development of financial institutions and their infrastructures. This development can be seen and measured in terms of the numbers of financial institutions and their network coverage.

Network of Banking Institutions

As per the 64th SLBC Jharkhand Report, the state has a big network of banking Institutions. There are 33 commercial banks which include 21 Public Sector, 13 Private Sector, 2 Regional Rural and 1 Cooperative banks. These banks operate through a huge network of 3008 branches and 3473 ATMs in the state whose specific details are in Table- 3.1.

Table- 3.1: Banks- their Branches and ATMs in Jharkhand

Sl. No.	Name	Branches	ATMs
Public Sector Banks			
1	State Bank Of India	577	1172
2	Bank Of India	493	519
3	Allahabad Bank	147	41
4	Central Bank Of India	88	94
5	Punjab National Bank	114	198
6	United Bank Of India	76	45
7	Canara Bank	142	169
8	Union Bank Of India	87	89
9	UCO Bank	73	53
10	Bank Of Baroda	95	173
11	Indian Overseas Bank	41	41
12	Syndicate Bank	46	40
13	Oriental Bank Of Commerce	36	34
14	Dena Bank	22	17
15	Indian Bank	23	22
16	Punjab and Sindh Bank	16	8
17	Vijaya Bank	14	14
18	Andhra Bank	23	20

Sl. No.	Name	Branches	ATMs
19	Corporation Bank	14	15
20	Bank Of Maharashtra	7	5
21	IDBI Bank	55	84
Private Sector Banks			
22	Federal Bank	10	9
23	HDFC Bank	61	141
24	ICICI Bank	55	168
25	Karnataka Bank Ltd.	3	3
26	AXIS Bank	58	202
27	Indus Ind Bank	19	34
28	Jammu and Kashmir Bank Ltd.	1	1
29	YES Bank	5	9
30	Kotak Mahindra Bank	14	10
31	South Indian Bank	2	2
32	LaxmiVilash Bank	2	6

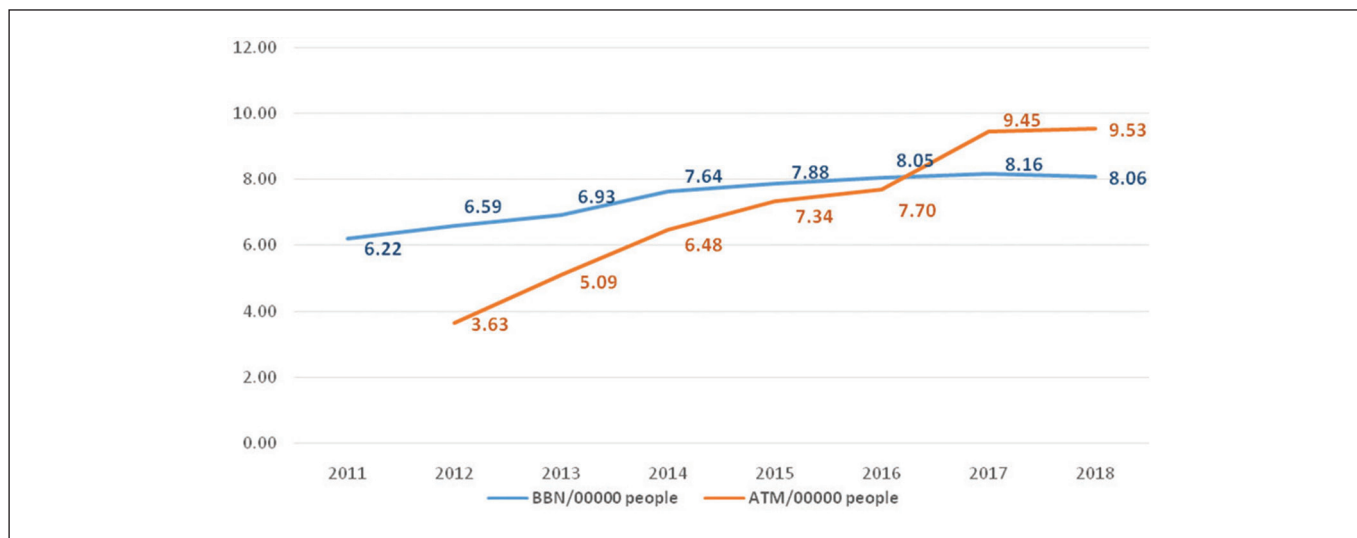
Sl. No.	Name	Branches	ATMs
33	KarurVasya Bank	2	2
34	Bandhan Bank	27	10
Regional Rural Banks			
35	Jharkhand Gramin Bank	240	2
36	VananchalGramin Bank	203	2
Cooperative Bank			
37	Cooperative Bank	117	19
	Total	3008	3473

Source: SLBC Jharkhand Report (64th round) as on 30th June 2018.

Coverage of Banking Institutions

Here, the coverage has been measured as a ratio of bank branch/ATM to per lakh population. It is clear from the Figure-3.1 that in 2003 only 6.93 branches of banks and 5.09 ATMs were available for one lakh people in the state. But, now in 2018 this has increased to 8.06 and 9.53 respectively which show the expansion in the coverage of banking institutions through branches as well as ATMs.

Figure-3.1: Ratio of Bank Branch/ATM to per lakh Population



Source: SLBC Jharkhand Reports and Projected population of Jharkhand by CFS, Jharkhand.

Performance of the Banking Sector in Jharkhand

Table-3.2 shows the quarterly trend in the key indicators used to measure the performance of the banking sector in Jharkhand. There has been a continuous improvement

in all the key indicators of the banking sector. Data from the first quarter of 2017-18 to the first quarter of 2018-19 has witnessed an increase in deposits by 5.78% and in credit by 10% which is quite healthy.

Table- 3.2: Quarterly Performance of Banking Sector in Jharkhand

Financial Year -		2016-17	2017-18				2018-19
Quarters -		Q4	Q1	Q2	Q3	Q4	Q1
Sl. No	Key Indicators	59th As on 31st Mar. 2017	60th As on 30 Jun. 2017	61st As on 30 Sept. 2017	62nd As on 31st Dec. 2017	63rd As on 31 Mar. 2018	64th As on 30 Jun. 2018
1	Deposit	186177.79	187378.77	189992.8	192003.77	198114.26	198214.28
2	Credit	81039.94	79655.39	81599.81	84018.21	85518.63	86863.17
3	Credit as per place of utilization & RIDF	26141.95	27217.63	30084.34	32955.98	33957.45	30782.35
4	Total Credit	107181.89	106873.02	111684.15	116974.19	119476.08	117645.52
5	CD Ratio (%)	57.57	57.04	58.78%	60.92	60.31	59.35
6	Priority Sector Advances (PSA)	43650.55	39840.49	42282.95	46176.52	46528.36	45573.29
7	Share of PSA to Total Advances (%)	53.86	50.02	51.82	54.96	54.40	52.47
8	Agricultural Advances	13704.11	12601.86	12860.28	13249.68	13485.92	13510.82
9	Share of Agricultural Advances to Total Advances (%)	16.91%	15.82	15.76%	15.77%	15.77%	15.55
10	i. Micro & Small Enterprises Advance	19753.78	17828.03	19582.9	21748.7	21711.74	20323.37
	ii. Share of Micro & Small Enterprises to Total Advances (%)	24.37	22.38	24.00	25.88	25.38	23.44
	iii. Share of Micro Enterprises in MSE(%)	55.69	57.45	58.18	58.44	58.34	59.9
11	Advances to Weaker Section	15268.4	14712.02	14308.2	14699	14852.75	14937.72
12	Share of Weaker Section Advances to Total Advances (%)	18.84	18.46	17.53	17.50	17.37	17.19
13	DRI Advances	51.15	38.78	36.72	40.96	42.19	31.15
14	Share of DRI Advances to Total Advances (%)	0.07	0.04	0.05	0.05	0.05	0.04
15	Advances to Women	11706.69	9451.92	10309.18	10993.94	11269.86	11455.11
16	Share of advances to women in Total advances (ANBC) (%)	14.45	11.86	12.63	13.09	13.18	13.19
17	Advances to Minorities	5679.66	5646.36	5454.27	5435.11	5620.21	5806.86

Financial Year -		2016-17	2017-18				2018-19
Quarters -		Q4	Q1	Q2	Q3	Q4	Q1
Sl. No	Key Indicators	59th As on 31st Mar. 2017	60th As on 30 Jun. 2017	61st As on 30 Sept. 2017	62nd As on 31st Dec. 2017	63rd As on 31 Mar. 2018	64th As on 30 Jun. 2018
18	Share of Advances to Minorities under PSA (%)	13.01	14.17	12.90	11.77	12.08	12.74
19	Gross N.P.A	4523.09	5042.83	4929.06	4992.87	5223.27	5099.35
	Provision	1797.99	2263.09	2291.4	2377.64	2790.54	2571.05
	Gross NPA Percentage	5.58	6.33	6.04	5.94	6.10	5.87
	Net NPA Percentage	3.36	3.48	3.23	3.11	2.84	2.91
20	Branch Net-Work (in no.)- Rural	1513	1496	1497	1496	1497	1498
	Semi-Urban	778	780	780	783	785	785
	Urban	704	724	726	721	726	729
	Total	2995	3000	3003	3000	3008	3012
21	ATMs installed in Jharkhand	3469	3480	3507	3536	3557	3471

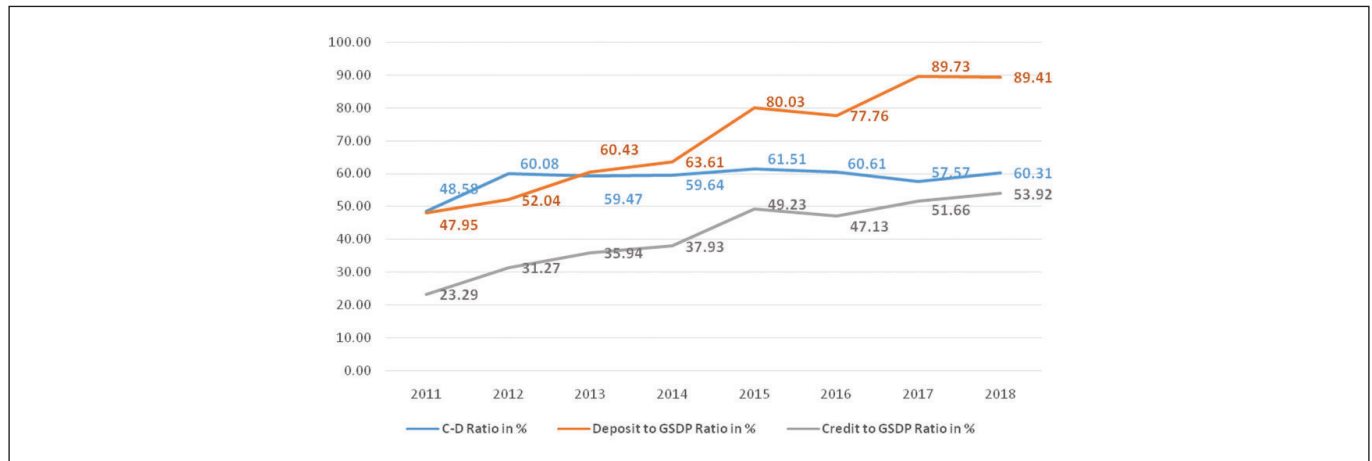
Source: 59th to 64th, SLBC Report, Jharkhand

Deposit and Credit to GSDP Ratio

An idea about the banking behaviour of the people can be evaluated by looking at the involvement of banking institutions for the purposes of earning and borrowing by the people. A ratio of Deposits and Credit to GSDP helps in evaluating such behaviour. In Jharkhand the Deposit to GSDP ratio is very good but Credit to GSDP ratio is not impressive. However, both are improving

continuously. In 2011 the former was 47.95% whereas; the later was only 23.29%. In 2018, these ratios have improved up to 89.41% and 53.92% respectively. A relatively low Credit to GSDP ratio may be a matter of concern as it indicates about the low credit absorption capacity in the state. This problem is also reflected in the low Credit-Deposit ratio which for most of the time has remained below the RBI benchmark of 60%.

Figure-3.2: Ratios of Deposit to GSDP, Credit to GSDP and Credit to Deposit (in %)



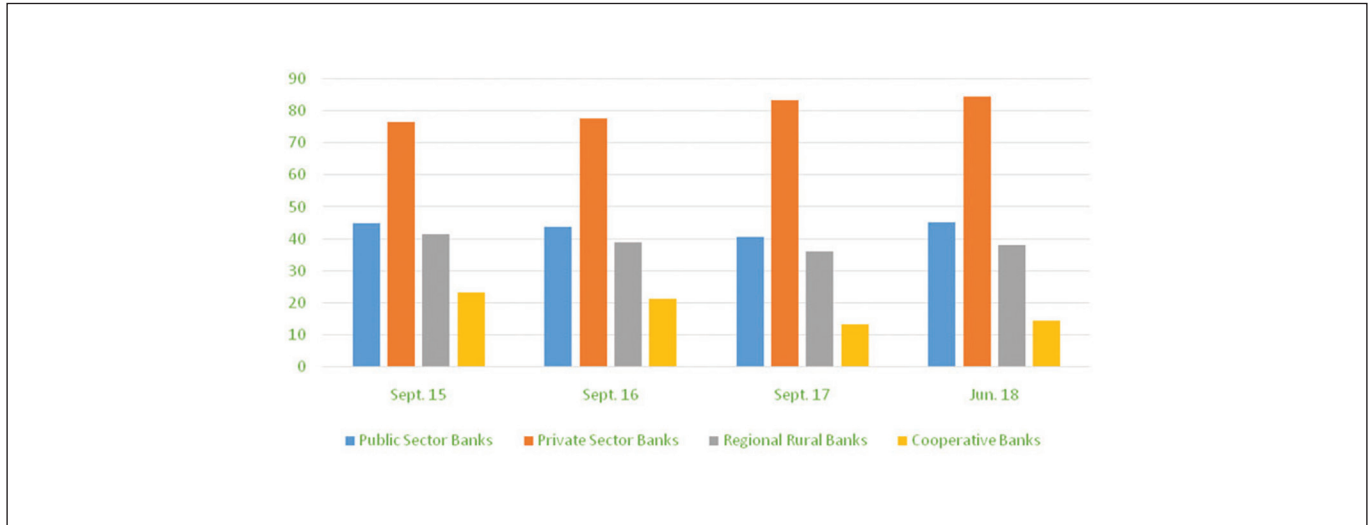
Source: SLBC Jharkhand Reports and Projected GSDP of Jharkhand by CFS, Jharkhand.

C-D Ratio

As the economy of Jharkhand is on path to expansion hence a high C-D ratio is the desired target. The first quarter of 2018-19 shows that the C-D ratio is 59.39 % which is just near the national benchmark of 60% and as compared to the first quarter of 2017-18 it has improved from 57.04%. But it is still quite low. One probable reason could be the poor credit absorption-

capacity of agriculture and allied activities in rural areas consequent upon the poor attitude as well as the poor infrastructure of the banking industry. This needs to be improved as the credit flow to the agriculture sector is necessary to boost the rural economy. The Figure-3.1 reveals that as usual the private sector banks have quite a high C-D ratio but the public sector and regional rural banks are also improving upon this.

Figure-3.3: Bank Category-wise Trend in C-D Ratio (in %)



Source: 59th to 64th SLBC Jharkhand Reports.

Loans and Advances

A comparison of different indicators of loans and advances between Q1 of 2017-18 to Q1 of 2018-19 shows a general improvement. Priority Sector Advances (PSA) has shown an increase of 14.38% and the share of PSA to total advances has also increased from 50.02% to 52.47%. Similarly, agricultural advances have increased by 7.21%. However, the share of the agricultural advances to the total advances has slightly fallen from 15.82% to 15.55%. The share of weaker section advances in total advances has marginally

declined from 18.46% to 17.19% whereas, the share of advances to women in the total advances has increased from 11.86% to 13.19% (Table-3.2).

Recovery of Loans and Advances

The recovery of Total Priority Sector (TPS) Loans and Advances are on a path to improvement. As per Table-3.3 it has improved from 48.26% in 2016 to 55.37% in 2017 with only a marginal decline to 53.57% in 2018 as similar improvement has also been in the case of agriculture, MSMEs and OPS.

Table-3.3: Sector-wise Status of Loans and Advances (as on 31st March)

Amount in Lacs.

Sectors	2016		2017		2018	
	Amount	%	Amount	%	Amount	%
Agriculture	146248.9	51.72	114955.1	45	328778.3	56.89
MSMEs	226478.2	51.36	226197.4	43	144581.3	44.1
OPS	85844.6	60.84	215755.1	48	163134.9	57.77
TPS	458571.7	48.26	556907.6	55.37	636494.5	53.57

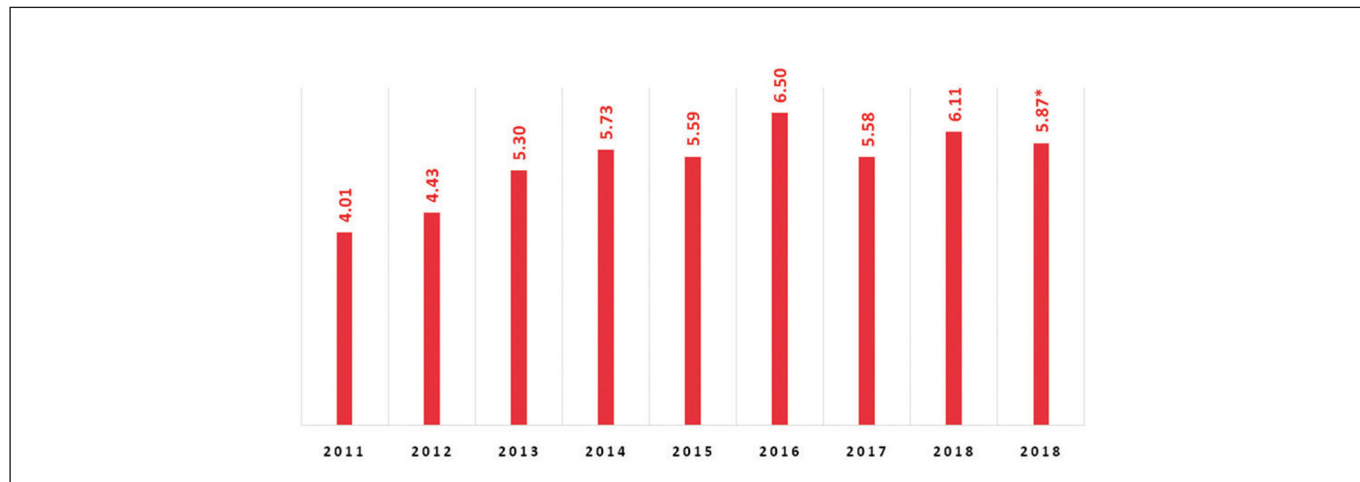
Source: 55th, 59th and 63rd SLBC Jharkhand Report (Annexures)

Non-Performing Assets (NPAs)

NPAs have become a big headache for the banking industry in the whole country. The gross non-performing assets (NPAs) ratio — bad loans as a percentage of total loans — of the banking system in Jharkhand

was estimated at 5.87% by June 2018. However, it is improving continuously as it was 6.11% in March 2018 and 6.50% in March 2016. But it is still high and a matter of concern. The country’s NPAs ratio was 11.6% in March 2018¹.

Figure-3.4: Percentage of Gross NPA (in %)



Source: 37th to 64th SLBC Jharkhand Reports.

Note: The * marked bar is showing NPA position between March 2018 to June 2018 whereas, all other bars are showing NPA position between 31st March of the previous year to 31st March of the next year.

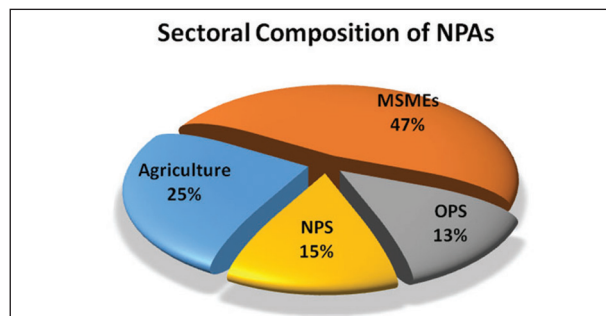
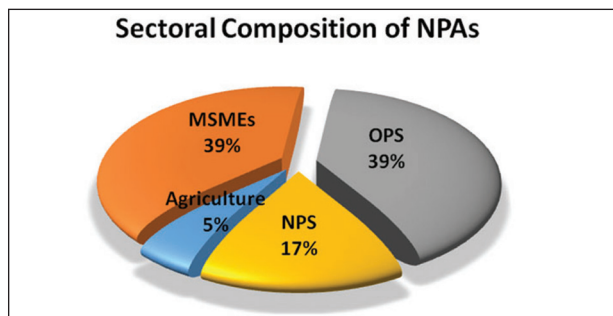
Sectoral Composition of NPAs

As compared to March 2017 there has been a change in the sectoral composition in NPAs in March 2018. The

proportions of NPAs in Agriculture and MSMEs have increased significantly from 5% to 25% and from 39% to 47% respectively. However, Other Priority and Non Priority sectors have witnessed a significant decline over the same period. NPAs in OPS have declined from 39% to 13% and in NPS it has declined from 17% to 15%.

Figure-3.5a: Sectoral Composition of NPAs as on 31st March 2017 (in %)

Figure-3.5b: Sectoral Composition of NPAs as on 31st March 2018 (in %)



Source: 59th SLBC Jharkhand Report, Data As on 31st March 2017.

Source: 59th SLBC Jharkhand Report, Data As on 31st March 2018.

Performance of Bank under Annual Credit Plan (ACP)

As per the 64th SLBC Report which covers the data of one quarter in the financial year 2018-19, the target-achievement was only 22.69% in total priority sector

as against 42.51% in the total non-priority sector under ACP. The performance of Agriculture under this scheme is even much slower than the MSMEs which stand at 12.09% and 36.05% respectively.

¹ Financial stability report (FSR), RBI, 2018.

Table-3.4: Sector-wise Achievement under Annual Credit Plan (as on 30 June 2018 in Rs Crores)

Sector	Annual Target 2017-18	Achievement in AFY 2017-18		Annual Target 2018-19	Achievement in AFY 2018-19	
	AMT	AMT	%	AMT	AMT	%
Agriculture	7682.37	3757.56	48.91	8336.6	1008.29	12.09
MSME	7329.51	10337.95	141.05	8560.35	3086.26	36.05
OPS	3821.41	2132.47	55.80	4213.6	694.5	16.48
Total Priority	18833.29	16227.98	86.17	21110.55	4789.05	22.69
Non Priority	8582.15	8605.03	100.27	8773.34	3729.85	42.51
Total	27415.45	24833.01	90.58	29883.89	8518.9	28.51

Source: 64th SLBC Jharkhand Report

Agriculture and Status of KCC

The total Agriculture-credit in all banks stands at Rs. 13510.82 crores in the state and this accounts to only 15.55% of the total credit as on the 30th of June 2018.

In relation to the national benchmark of 18%, this low ratio needs to be improved. The total disbursement in KCC accounts in 2018-19 stands at Rs. 300.19 crores whereas, the total outstanding is at Rs. 6497.25 crores as in June 2018 Table-3.4.

Table-3.5: Bank Category-wise Status of KCC in Jharkhand (Amount in Crores)

Type Of Banks	Disbursement during 2018-19		Outstanding in KCC accounts	
			As of 30.06.2018	
	A/C	Amt	A/C	Amt
Public Sector Banks	60360	208.72	1224202	4878.79
Pvt. Banks	6557	26.04	33088	170.76
Total	66917	234.76	1257290	5049.55
RRB	15415	64.48	363206	1416.2
Co-op Banks	283	0.95	18700	31.5
Total	82615	300.19	1639196	6497.25

Source: 64th SLBC, Jharkhand

Conversion of KCC into Smart KCC

Smart KCC which is a Rupay Card now can be used at ATMs and POS. As per the records given by the banks till March 2018 out of a total of 1475438 eligible KCC only 1289214 have applied for a Rupay Card and against them 1263435 Rupay Card have already been issued to them. Thus the achievement is 98% in this case.

Micro Small and Medium Enterprises (MSMEs)

MSMEs are performing well in the state. Since June 2016 total MSMEs Accounts have increased from 519 thousand to 590 thousand in June 2018. The credit-outstanding positions in these accounts has increased from Rs. 18921.55 crores to Rs. 22208.72 crores over the same period. In June 2017 this amount was Rs. 19208.31 Crores and thus it shows a growth rate of 15.62%.

Table-3.6: Financing to Micro & Small Enterprises (MSE) (Priority Sector)

SI No	Particular			Outstanding Position as at the end of		
				Jun-16	Jun-17	Jun-18
Micro and Small Enterprises						
1	Micro Enterprises		Accounts	399	451	539
			Amount	9266.93	10242.99	12172.7
2	Small Enterprises		Accounts	89	69	46
			Amount	7822.44	7585.04	8150.67
3	Total Micro and Small Enterprises (MSE Sector)		Accounts	488	520	585
			Amount	17089.37	17828.03	20323.37
	Medium Enterprises					
4	Total of Medium Enterprises		Accounts	31	30	7
			Amount	1832.18	1380.28	1885.35
MSME						
Total MSME (Priority Sector Advances)			Accounts	519	550	592
			Amount	18921.55	19208.31	22208.72
5	a.	Share of Credit to Micro Enterprises in total credit to MSE sector	Percent share of amounts (Stipulation: 60%)	54.23%	57.45%	59.90%
	b.	Share to credit to MSE sector in NBC/ ANBC	Percent share of amount	23.50%	22.38%	23.44%

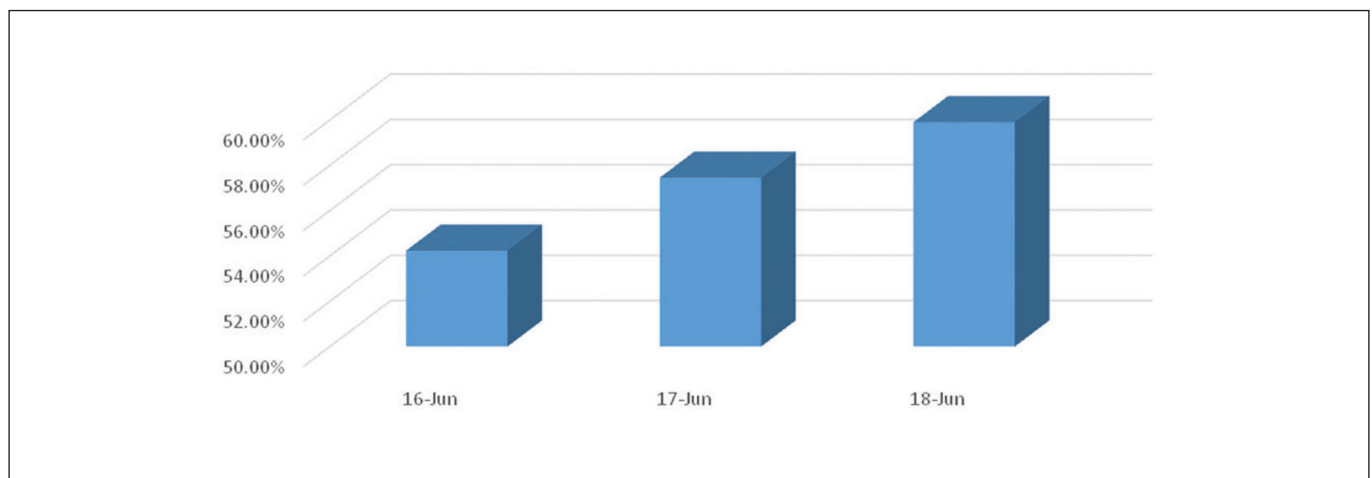
Source: 64th, 60th SLBC Jharkhand Report.

Note: Accounts in thousands, Amount in Crores.

The share of micro-sector credit in total MSE has been improving continuously from 54.23% in June 2016 to 57.45% in June 2017 and further to 59.90% in June

2018 which is very close to the benchmark of 60% as per the guidelines of the Reserve Bank of India.

Figure-3.6: Share of Credit to Micro Enterprises in Total Credit to MSE Sector (in %)



Source: 64th, 60th SLBC Jharkhand Report.

Collateral Free Loan Up to Rs.2.00 Crore 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 CGTMSE guidelines, MSE loans up to Rs. 2 Crores are eligible for a credit guarantee cover which is extended to those entrepreneurs who have viable Projects/ proposals but lack adequate collateral security to offer.

Table 3.7: Coverage under CGTMSE (For eligible loans upto Rs 2.00 crore in MSE)

(Position as on 30.06.17) (A/C in 000, Amt in Crore)

Year	Eligible MSE loan up to Rs 2.00 crore		Coverage under CGTMSE	
	Total		Total	
	A/C	Amt	A/C	Amt
Jun-17	472	12787.77	114	4510.32
Jun-18	401	18082.83	114	4454.72

Source: 61st & 64th SLBC Jharkhand Report

As per bank information till June 2018, there are 4.01 lakhs MSE credit accounts which are eligible for CGTMSE coverage of Rs. 2 Crores but only 1.14 lakhs accounts have applied for coverage under this scheme and this accounts for 28.42% only.

Education Loan

Education is the primary means to human capital development. As on 30 June 2018, banks have disbursed education loan of Rs. 3148.48 Crores against 66458

accounts. A consistent increase in the disbursement of education loans can be seen in table-3.8a. The new norms of RBI have neutralized the effects of CNT and SPT acts in providing collateral security against a loan of Rs. 7.50 lakhs for education by making available credit guarantee to banks. This has helped eligible SC/ST students in taking education loan of Rs. 7.50 lakhs. Table-3.8b shows that in the first quarter of the financial year 2018-19, Rs. 8.99 Crores have been disbursed to 328 SC/ST students under this scheme.

Table-3.8a: Total Education Loan (Amount in Rs. Crores)

Particulars	Total as on 30/06/2016	Total as on 30/06/2017	Total as on 30/06/2018	Disbursement during FY 2018-19
No. of Accounts	59767	61098	66458	4175
Amount	2246.89	2554.35	3148.48	230.84

Source: 60th and 64th SLBC Jharkhand Report

Table-3.8b: Total Education Loan to ST/SC up to 7.50 lakhs

Particulars	FY 2017-18				FY 2018-19			
	Sanctioned		Disbursed		Sanctioned		Disbursed	
	Nos.	Amount (in Rs. Crores)	Nos.	Amount (in Rs. Crores)	Nos.	Amount (in Rs. Crores)	Nos.	Amount (in Rs. Crores)
Total Education Loan (in Q1)			4746	221.49			4175	230.84
Total Education Loan up to 7.50 lakhs	1518	76.42	1504	42.67	1691	79.51	1472	39.59
Total Education Loan to ST/SC up to 7.50 lakhs	233	13.7	232	7.57	337	17.27	328	8.99

Source: 60th and 64th SLBC Jharkhand Report

Housing Loan

Housing for all is the slogan of the day and housing loan plays a significant role in making it a reality. The status of disbursement of housing loans to the people in the

state has increased by 32.36% between June 2017 and June 2018 as compared to 21.07% between June 2016 and June 2017 which is quite healthy. In Q1 of 2018-19, Rs. 699.44 crores have already been disbursed under housing loans by the banks (Table-3.9).

Table-3.9: Housing Loan (Amount in Rs. Crores)

Particulars	Total as on 30/06/2016	Total as on 30/06/2017	Total as on 30/06/2018	Disbursement during FY 2018-19
No. of Accounts	67455	71835	78294	5493
Amount	5392.54	6528.78	8642.05	699.44

Source: 60th and 64th SLBC Jharkhand Report

Pradhan Mantri Mudra Yojana (PMMY)

Pradhan Mantri MUDRA Yojana (PMMY) is a scheme for providing loans upto 10 lakh to the non-corporate, non-farm small/micro enterprises. These loans are classified as MUDRA loans under PMMY. These loans are given by 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 this 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.

Table-3.10: Achievements of Jharkhand under PMMY

(Amt in Crores)

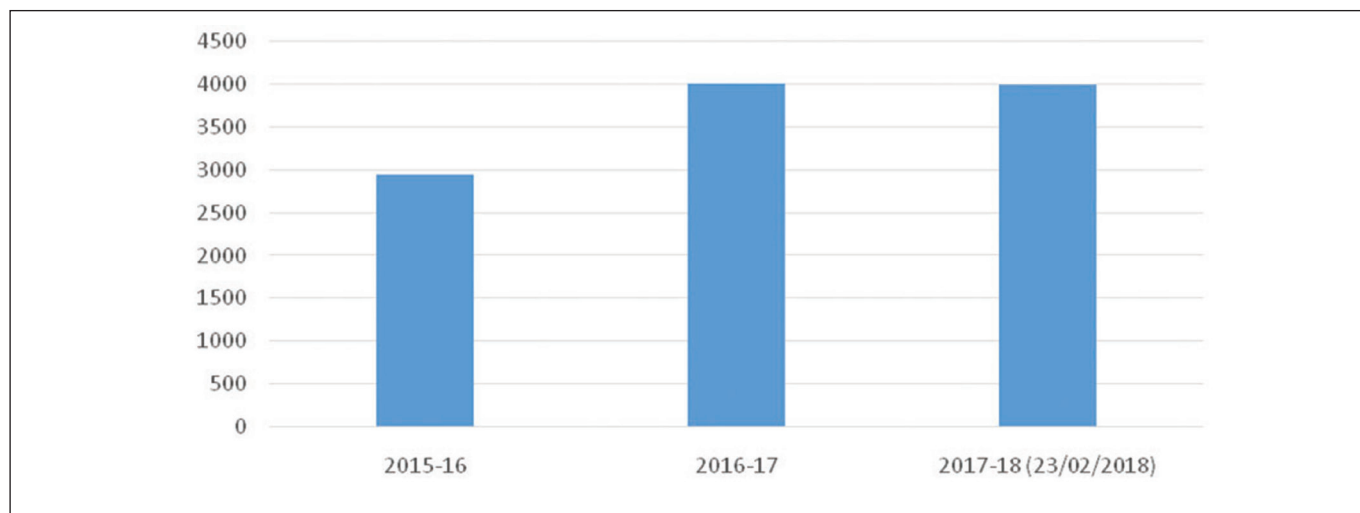
		Shishu		Kishore		Tarun		Total	
		No	AMT	No	Amt	No	Amt	No	Amt
01/04/17-30/09/17	Sanctioned	106509	343.35	30003	626.46	4876	386.11	141388	1355.93
	Disbursed	106080	333.39	30035	577.27	4902	354.87	141017	1265.54
	Disbursed to Sanction Ratio in %	99.60	97.09	100.11	92.15	100.53	91.91	99.74	93.33
01/04/18-30/06/18	Sanctioned	22862	65.2	15844	357.99	3676	291.97	42382	715.16
	Disbursed	22685	56.05	15811	301.55	3655	255.5	42151	613.1
	Disbursed to Sanction Ratio in %	99.23	85.97	99.79	84.23	99.43	87.51	99.45	85.73

Source: 61st and 64th SLBC Jharkhand Report.

As per MUDRA Portal, Micro Finance Institutions have sanctioned Rs. 808.10 crores against an approximate of 294468 accounts in the state and Rs. 718.59 crores have already been disbursed to them. Thus under the

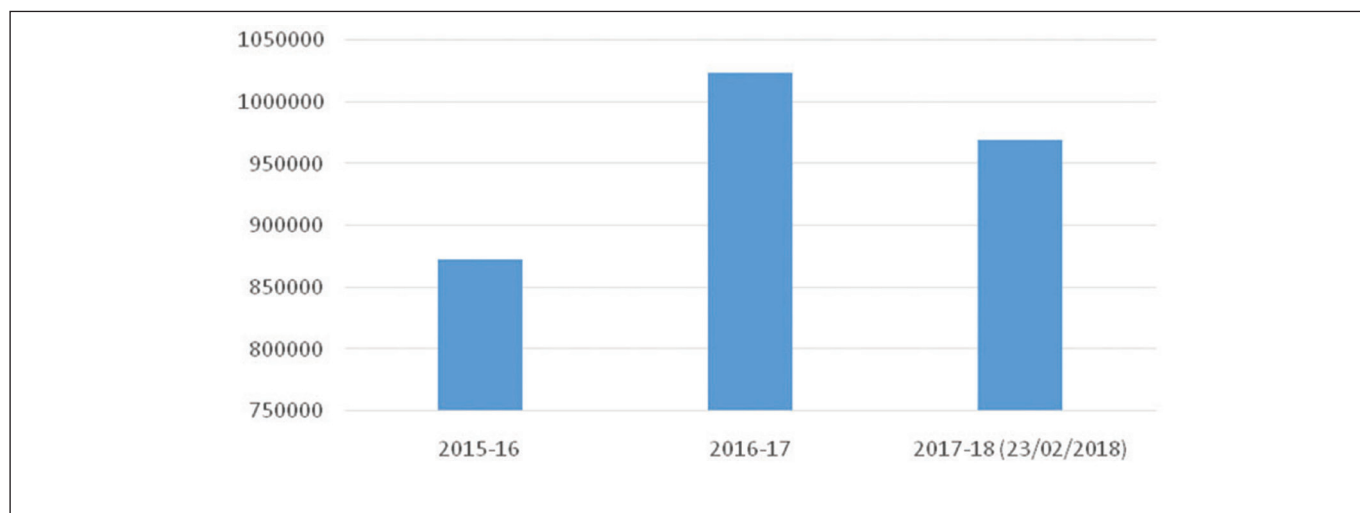
MUDRA Scheme a total of Rs. 1331.69 crores have been disbursed in 336619 accounts till June 2018. Figures-3.7a & b show the comparative progress of the MUDRA Scheme in Jharkhand.

Figure-3.7a: MUDRA Loans in Jharkhand Sanction (Amt. in Rs. Crores)



Source: 61st & 64th SLBC Jharkhand Report.

Figure-3.7b: MUDRA Loans in Jharkhand in No. of ACs.



Source: 61st & 64th SLBC Jharkhand Report.

Stand Up India Loan Programme

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 branch of a bank for setting up a greenfield enterprise. This enterprise may be in the manufacturing, services or 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, banks have extended credit to 571 beneficiaries out of which 68 belong to the SC/ST category whereas 503 are women beneficiaries. It is also noticeable that more than 88% of the beneficiaries are women as portrayed in table 3.10.

Table 3.10 Jharkhand's achievement in Stand up India Loan Programme (Till 30.03.18)

Total Beneficiaries	Women Beneficiaries	SC/ST Beneficiaries	Loan Disbursed Amt (in crore)
571	503	68	53.19

Source: 63rd SLBC Jharkhand Report.

National Rural Livelihood Mission (NRLM)

National Rural Livelihood Mission (NRLM) also called Aajivika is now DeendayalAntayodayaYojana (DAY-NRLM). It is the central government's flagship program which aims at creating efficient and effective institutional platforms for the rural poor, enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. It believes in harnessing the innate capabilities of the poor and complements them with capacities (information, knowledge, skills, tools, finance and collectivization) to participate in the growing economy of the country.

National Rural Livelihood Mission – Jharkhand's Achievement

Jharkhand State Livelihood Promotion Society (JSLPS) was formed as an autonomous society in the year 2009

within the Rural Development Department, government of Jharkhand. The society is created to serve as a special purpose vehicle for the smooth implementation of poverty-reduction schemes and programmes in the state. Jharkhand State Livelihood Promotion Society (JSLPS) has been designated by the state government to implement the National Rural Livelihood Mission (NRLM) in Jharkhand in September 2011. JSLPS initiated the implementation of NRLM in the financial year 2012.

Till 30th June 2018, a total of 222 blocks, 16374 villages and 1732000 families of Jharkhand have been covered under NRLM schemes. The Mission is progressing satisfactorily in the state and since its inception more than 70 thousand SHGs have been credit-linked with banks and Rs. 50811.45 lakhs of credit have been availed by them to ensure a smooth and effective execution of this scheme in the state (Table-3.11).

Table-3.11: National Rural Livelihood Mission – Jharkhand's Achievement (Till 30.06.18)

Indicators	Status as on March'18	Achievement in AFY-18-19	Cumulative status as on date since inception
No of Blocks	200	22	222
No of Villages	15733	1001	16734
Total number of SHGs supported by SRLM	132531	11107	143638
Total number families supported by SRLM	1597905	134095	1732000
No of SHG receiving R.F	55741	13103	68844
Amt. of RF disbursed (Rs. In Lacs)	8361	1965	10326
No of SHG receiving CIF	33901	3048	36949
Amt of CIF disbursed (Rs. In Lacs)	18783	1524	20307
No of SHG credit linked with Banks	66495	3999	70494
Amt. of Credit availed from Banks (Rs. in Lacs)	49005.45	1806	50811.45

Source: JSLPS quoted from 63rd and 64th SLBC Report Jharkhand

Conclusion

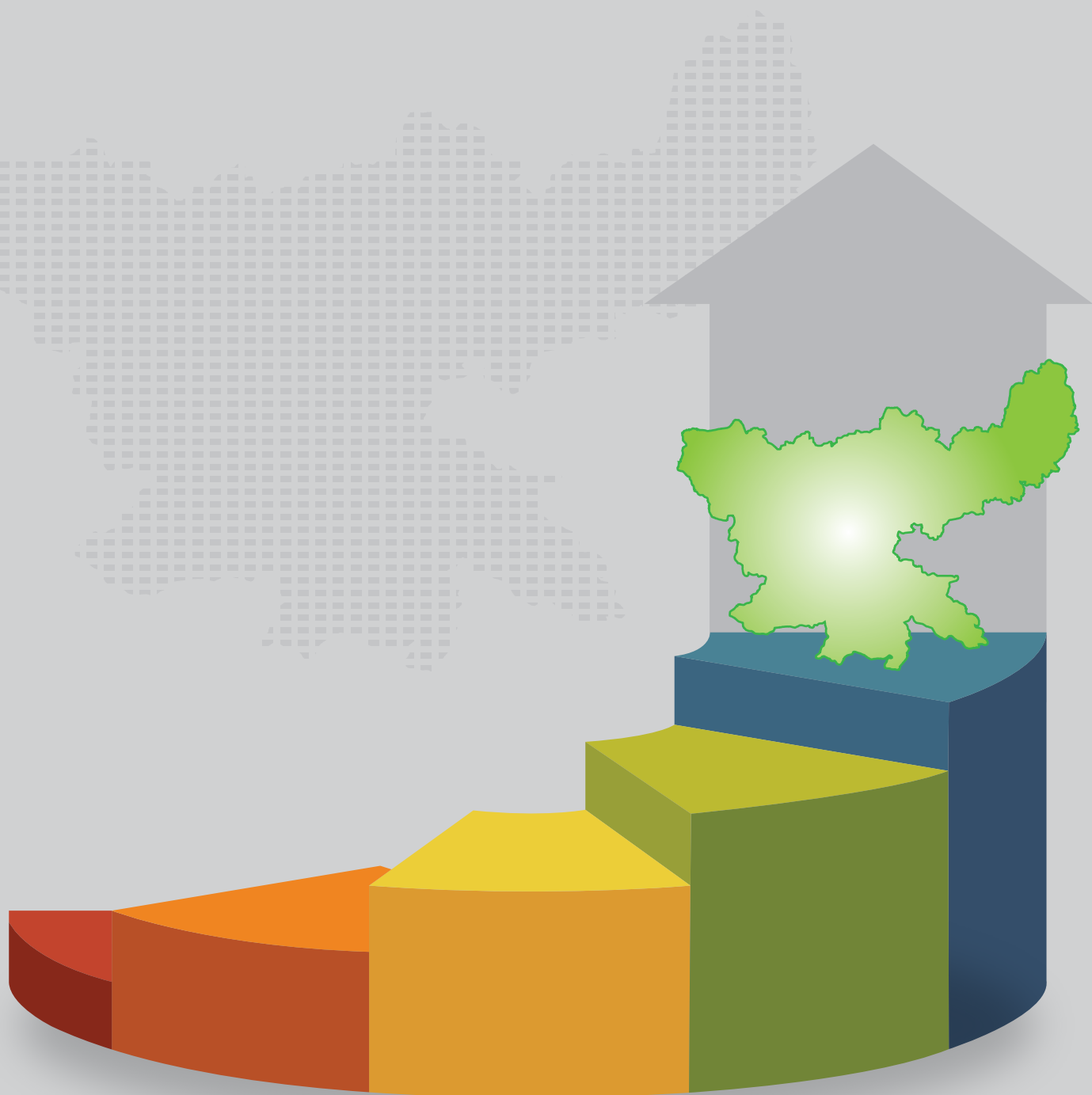
The financial infrastructure and access to financial services are on the rise in the state. Most of the key indicators of performance of the banking industry have shown a positive trend in the recent years. A high and continuously improving deposit to GSDP ratio is very good. The C-D ratio, the flow of credit to Agriculture, MSMEs and other Priority sector lending have improved significantly. The performance of MUDRA and Stand-Up India is also encouraging and it will certainly improve the entrepreneurial capabilities in the state with an enhancement in the credit-absorption ability of the state. Education loans and housing loans are increasing and will ensure an improvement in the

quality of human capital.

However, C-D ratio and the flow of credit to agriculture and other priority sector are not satisfactory and still demands more efforts as these ratios are less than even their respective national benchmarks as fixed by the RBI. A low credit to GSDP ratio is also a challenge and efforts must be made to improve the rural financial infrastructures and the attitude of banks towards the priority-sector-lending as this will be quite helpful in increasing the credit absorption capacity of the state. Even at a slow rate of rise in NPAs thus is not good as it deteriorates the asset quality of the banks. Hence efforts must be made to reduce the gross NPA ratio.

IV

RURAL DEVELOPMENT AND PANCHAYATI RAJ



With a strong commitment and persistence, one can achieve the desired target. This is shown by the state’s government institutions. The GoI along with the Rural Development Department of Jharkhand has been able to achieve 100% Electrified and 100% Open Defecation Free (ODF) status in the state. This fiscal year the department’s focus has been on the e-services and community-participation in the developmental process. Recently the web portals for various services like SECURE, e-Saksham have been launched and various SHGs are promoted to work with the government to ensure that no household is left behind in availing the benefits of the state government’s programmes.

Poverty is a complex and multidimensional phenomenon. The mandate of the Department of Rural Development is rural poverty-alleviation through programmes directly targeted at the rural poor households. For this, the department has made an effort to make people aware of their rights, offered various government schemes and tried to strengthen the grievance-redressal mechanism. The department has worked on improving irrigation, livelihood, employment, food security and skill development, which are the crucial sectors for the development of the people of rural Jharkhand. As the majority of Jharkhand’s population is rural, the development of the rural areas portrays the overall socio-economic development.

GOVERNANCE

LOCAL SELF GOVERNANCE

The 73rd Amendment Act of the constitution of India and the Jharkhand Panchayati Raj Act of 2001 (JPRA), lays emphasis on decentralised planning for the local economic development and also for providing social justice by the Panchayats. The process of decentralised planning may fulfill the following important needs:

1. Capturing local needs and demands
2. Tapping local potential,
3. Operationalising methods of convergence at the ground level,
4. Identifying and reaching out to the vulnerable communities/families.

In the state of Jharkhand, the first Panchayat Elections were held in the year 2010. The state has three tier PRI system-Zila Parishads, Panchayat Samitis and Gram Panchayats. All the tiers have been assigned and enshrined with powers, roles and responsibilities

mentioned in the JPRA 2001. The state also falls in the jurisdiction of the fifth schedule under which 13 districts are fully and 3 districts are partially under PESA. Under the 11th schedule of the constitution the state has also devolved 22 subjects out of 29 subjects. The 22 subjects are under the purview of 14 departments.

In the state’s PRIs the women’s participation is above 52% which is higher than the women-representation in both the houses of Parliament (around 11%) and state legislature (around 10%).

Table 4.1 : Basic Profile of PRIs

No. of GPs	4398
No. of GP Elected Representatives (ERs)	54807
No. of Intermediate Panchayats	263
No. of IP ERs	5432
No. of District Panchayats	24
No. of DP ERs	24
Elected Women Representative (EWR) %	52
Date of election (held/ to be held):	Dec 2015/ Dec 2020

Call Centre for Grievance Redressal

The Department of Rural Development has set up a call centre for grievances related to schemes and programmes of the department. The call centre works on 6 days of the week. Anyone can approach the call centre from 9:00 am – 6:00 pm from Monday to Saturday. Complaints received at the call centre are entered on an online platform and then transferred to the relevant authorities for resolution. The system has helped to streamline grievances in the department for fast redressals. The call centre can be reached at the following toll free number 18003134242. At present, the call centre is equipped to handle cases related to MGNREGA and PMAY.

Decentralized Planning

The department has decided to continue the process of strengthening and deepening democracy in Jharkhand through ensuring participatory and decentralised planning of the MGNREGA assets. The preparation of the Labour Budget for 2019-20 as well as the Annual Action Plan for 2019-20 are being done at the ward level. The process in most places is being supported by

the Cluster Facilitation Teams (CFTs) at the Block Level and by several Civil Society Organisations (CSOs) who have offered their services in building the capacities of local agencies. To fulfil the aim of decentralized planning in a structured manner, the capacity-building of different stakeholders has been given the utmost priority. So far, the training of the pool of trainers, training and orientation of District Programme Coordinators and all Block Development Officers have been completed and downward training and orientation programmes are going on across the state.

Under the MGNREGA, the participatory planning exercise will be done at each ward level. There will be three exclusive formats :

- i) to capture the demand for works of all the households who have jobcards,
- ii) to identify and prioritize the type of works/ schemes for individuals/community and
- iii) to identify and prioritize the type of works/ schemes exclusively for the economically vulnerable families.

The planning exercise is going to be facilitated by the five member Ward Planning Team (WPT) in every ward within a two-day intensive participatory planning exercise. The WPT shall be guided under the leadership of the concerned ward member, thus giving them the opportunity to interact with the community and realise their demands.

People's Plan Campaign "Sabki Yojana Sabka Vikas"

"HUMARI YOJANA HUMARA VIKAS"

During 2015-16, Chief Minister Raghubar Das launched the People's Plan Campaign in Jharkhand under the banner of "HUMARI YOJANA HUMARA VIKAS". This was the first initiative of its kind and was based on the idea of *the* convergence of resources and man power. The Gram Panchayat Development Plan (GPDP) instigates the panchayats: firstly, to provide a VISION of what the people would like their village to look like and secondly, it sets out clear GOALS to achieve that vision and thirdly, it provides an ACTION PLAN to reach those goals.

Form 2015-16 onwards, *the* GPDP campaign has drastically brought positive results through grassroot-planning in the following ways:

- Activated the panchayats to prepare realistic and holistic development plans and thus has set an example of local governance.
- Has mobilised motivated people to participate in decision making.
- Has organised effective gram sabhas with a massive participation of women and vulnerable communities.
- Has provided a platform for discussing local perceptions, local issues and an analysis to decide priorities.
- Has helped in identifying the magnitude of development-gaps and prioritise the issues and problems existing in the panchayats.
- Optimum utilisation of resources for the larger need of the people.

Strategies adopted for the Abhiyaan:

- Direct interaction of the community with political leaders: political ownership by the government was undertaken.
- Partnership with women collectives and civil society organisations: women collectives played a major role in community-mobilization in 2015-16/2016-17.
- Large scale community-mobilization through activities: rallies/prabhat pheries/ group discussions/ folk media.
- Panchayat Planning Team comprising of the panchayat volunteers and members of the SHGs who facilitated the planning process through visits to households of the vulnerable families.
- Mandatory public disclosure of all the schemes by frontline workers in special gram sabhas
- Public information boards on display for all the financial resources in the Gram Panchayats.
- GPDP application for uploading the facilitator-reports of the special Gram Sabhas.

Major Qualitative outcomes of "HAMARI YOJANA HAMARA VIKAS" 2015-16 to 2018-19

- Plans prepared for the most vulnerable households, comprising 15% of the total rural population
- Strong community ownership of the planned schemes by Gram Panchayats

- Local democracy strengthened - Gram Panchayats have been revitalised as strong institutions of local governance
- Deepening democracy - Participation of women and vulnerable families in local governance, especially in the Gram Sabhas
- Creation of cadre of 15,000 community-based planners (members of SHGs) skilled in the functioning of local democracy, techniques of participatory planning and principles of integrated natural-resource management
- Creation of an environment in the state for complementary convergence

Table 4.2 : Major Quantitative Outcome of GPDP

S. No.	Sectors	2015-16	2016-17	2017-18
1	Drinking Water	4027	9092	15664
2	Health and Sanitation (Including SWM)	783	3344	9284
3	Maintenance of Community Assets	1009	6009	7656
4	Maintenance of Roads	4990	24796	36910
5	Rural Electrification	2043	3785	5255
TOTAL		12,852	47,026	74,769
TOTAL NUMBER OF SCHEMES		1,34,647		

Highlights of 2018-19 “People’s Plan Campaign”

- 10,000 SHG members deputed as facilitators in the Gram Panchayats: They are responsible for conducting household visits/identifying vulnerable households and mainstreaming them in the process of planning.
- 3800 Special Gram Sabhas held with the participation of frontline workers of all the concerned departments.
- Mission Antodaya survey captured in more than 85% of the Gram Panchayats and is considered as the baseline data.
- Poverty Reduction plan for the 3800 Gram Panchayats prepared till Nov’2018
- Gram Panchayat Development Plan for 3800 GPs is prepared and will be uploaded in Plan Plus
- All Special Gram Sabhas geo-tagged.

Issuance of SIM cards for Government Officials

The Department of Rural Development, Jharkhand wanted to connect with all the DDCs, Directors DRDA, BDOs, Project Officers, BPOs, RSs & Senior Headquarter Staffs, etc for evaluating and monitoring the Departmental Flagship Programmes or giving directions to them. Generally, after their transfer, their mobile numbers are also changed. It is hard to contact them. The department is planning to provide a unique mobile number to all field officials. This number is concerned with the post not the person. This will help in the smooth functioning and coordination between the officials and the departments.

Social Audit Unit

Deepening Democracy and Strengthening Bottom Up Accountability through Social Audits

Social audit is a democratic process that ensures public accountability of agencies through a systematic demand of information by the community. Within its ambit, it covers issues like the quality of implementation of the programme along with the audit of expenses and decisions. In a social audit, the people and the

government jointly monitor the project. It is an empowering process for the people to participate in the process of planning and the implementation of works and make the implementing agency accountable for the same and also brings about much greater acceptability of the government. Thus it ensures participation, helps maintain transparency and culminates in accountability. Social audit as a process for establishing the value of transparency and accountability was initiated by the

Civil Society Organisations (CSOs) in Jharkhand, through organising public hearings for Food to Work programmes.

To promote transparency and the effective implementation of schemes, the state government of Jharkhand has established an independent cell called the **Social Audit Unit (SAU)** within the Jharkhand State Livelihood Promotion Society for the smooth conduct of the social audit of MGNREGA and other flagship programmes. The unit has been set up at the JSLPS office 3rd floor FFP Building, Dhruwa through notification no 10-3002/SA/2015/RDD(N)794 dated 2nd May,2016. The unit is headed by a state coordinator, who is responsible for running the unit along with six

subject specialists. The unit consists of 7 state level functionaries, 24 district resource-persons, 267 block resource persons and 1126 village resource persons. 4423 women SHG members are also trained as village resource persons by the SAU.

The Social Audit Unit began with auditing the MGNREGA. However, after witnessing the massive impact of the Social Audit process in not only improving the implementation but also in empowering the people, the government decided to introduce social audits in other departments and schemes such as the Public Distribution Scheme, the Swachh Bharat Mission, the Pradhan Mantri Aawaas Yojana etc.

Table 4.3 : Schemes Audited by the Social Audit Unit

Sr. No.	Name of Scheme/Department	No. of Panchayats/Projects
FY-2018-19 (Audit Conducted Year)		
1	Mahatma Gandhi NREGA	1527 GPs as per calendar
2	Swachh Bharat Mission (ODF)	200 GPs
3	PDS-Direct Benefit Transfer	1 Block in Nagari, Ranchi
4	Zero-Drop Out Children	178 GPs in 78 Blocks-24 Dist.
5	100 % Literacy	119 GPs in 72 Blocks, 19 Dist.
6	Pradhan Mantri Aawas Yojana-Gramin (PMAY-G)	37 GPs in 3 Blocks (6075 HH)
7	Pradhan Mantri Aawas Yojana-Urban (PMAY-U)	1500 HH
8	Mid-Day Meal (Pilot)	10 GPs in 1 Block
9	Birsa Munda Bagwaani scheme	6000 Beneficiaries (on Going)
FY-2016-18 (Audit Conducted Year)		
1	MGNREGA	2298 GPs
2	Watershed Projects (IWMP)	124 Projects
3	Jharkhand Tribal Development Society (JTDS Projects)	150 GPs
4	14th Finance Commission Grant	1499 GPs
5	JSSCDC	39 Blocks
6	Pilot Social Audit of Indira Awas Yojana	60 GPs
7	Pilot Social Audit of ICDS	50 GPs
8	Social Audit of CFTs	76 Blocks
Proposed Audits		
1	Building and Construction Workers	Pilot yet to start
2	National Social Assistance Programme (NSAP)	Guidelines are being finalised with MoRD
3	Mukhya Mantri Daal Bhat Yojana	Discussion is going on
4	Samagra Shiksha	9000 Schools yet to start

SAUs Unique Modus Operandi and Innovations

1. **Public Hearings from Panchayat level to State level :** SAU, Jharkhand has successfully established the system of public hearings on regular basis from the Gram Panchayat to the State level, wherein reports are read out, decisions are taken, action taken reports (ATRs) are reviewed and policy decisions are formulated. The public hearings are facilitated by a jury comprising of nominee of the District Programme Co-ordinator (DPC), Self Help Group (SHG) federation leader, Panchayati Raj Institution (PRI) member, Ombudsman and one MGNREGA worker. This has made the decisions more democratic, transparent and accountable.
2. **Advisory Document for Action :** To enable the smooth functioning and informed decision making by the Jury, SAU with the support of the Planning Cell of the department, has prepared an advisory document for all stakeholders through a consultative workshop. This is a reference document for jury members, for each possible irregularity and with a suggested action. The same document is of use to officials while dealing with issues related to irregularities under the MGNREGA and imposing penalty under section 25 of MGNREGA Act.
3. **Special Social Audits:** Based on the complaints from individuals, CSOs, people's representatives and media, special social audits are conducted by special teams. So far 256 Gram Panchayats, are audited apart from those already notified in the Social Audit Calendar. Under this process, MGNREGA expenditure of one entire block and two entire districts were audited in the FY 16– 17.
4. **Special Hearings :** The state-level members from SAU and the department participate as observers and the members of Jury in special hearings. If gross irregularities are found the higher officials of the state also attend the hearing. Till now 3 special hearings have been held at the state level where the Principal Secretary, Department of Rural Development and MGNREGA Commissioner was also present as a Member of the jury along with civil-society members. Kasmar-block-hearing was one such special hearing conducted in the presence of the Additional Chief Secretary, GoJ.
5. **Test Audits :** To ensure the quality of social audit process, test audits of 5 per cent GPs have been conducted by the Social Audit Unit. This process helps to improve the process of social audit and take corrective action if there are any collusion or compromises made by the teams.
6. **Disciplinary Committee:** A committee with CSO representatives has been formed to hear all the complaints against the social audit unit personnels. The committee hears the complaints and take corrective and disciplinary actions based on the evidences. Till now 4 meetings of the committee have been held and actions are taken as per guidelines. This has helped to maintain the integrity of the team.
7. **Involvement of Civil Society Members:** The active involvement of the civil society members who have been associated with right based work and MGNREGA, are part of the state resource group for the SAU. They are voluntarily associated with the social audits as guest lecturers, jury members, disciplinary committee members and social audit monitors. Their presence enables the social audit teams to carry out their jobs effectively, particularly in difficult circumstances and in the remote areas. Their presence and engagement also help to maintain the quality of the Social Audit Unit as they are able to identify the shortcomings and suggest avenues for improvement.
8. **Cultural interventions:** Jharkhand has a rich cultural heritage and this has made it possible for the social audit process to win the trust, acceptance and even enthusiasm of the citizens. Through the cultural workshops, songs, skits and folk dances have developed in eight regional languages. This intervention has helped in better community mobilisation and the awareness generation of rights and entitlements.
9. **Formation of Mazdoor Manch:** Apart from social audits, the teams initiate the formation of Village Monitoring Committees (VMCs) as mandated in MGNREGA in the Gram Sabhas. This is the most suitable platform to identify the active members of this committee. Till now these committees have been constituted in 2000 villages and are now being trained by SAU for regular monitoring and concurrent audits.

10. Synergy with Self Help Groups: The SAU has also trained 4423 women members from the SHGs as community cadres to conduct social audits. This has tapped into the potential of the already empowered women to further take forward the social audit process. The trained SHG women members are engaged in conducting the social audits of MGNREGA, Swachh Bharat Mission and other schemes.

Creating a Resource Pool through Capacity Building Programmes

Since its inception, the unit is auditing MGNREGA and 15 other Welfare Schemes. The volume of Audit and the schemes are gradually increasing and for that there is a requirement of a huge number of village resource persons who facilitate the Social Audit process of the Gram Sabha. To create a resource pool the SAU is providing different types of training at different levels. The unit is giving one month certificate training course to Block Resource Persons and District Resource persons in association with SIRD and TISS. SAU is also providing Refresher training, Technical training, Gender training, Grievance Redressal training, MIS uploading, ToT for Master trainers, Handholding training to BRPs and VRPs on zero day entry point. Till now, 4432 SHGs have been trained with the support of NIRD. SAU are also providing customized trainings on the different entitlements and schemes to its field team.

By empowering and building capacities of the local communities to monitor schemes and programmes meant for them, the SAU in Jharkhand is creating a culture of bottom up accountability which is unforeseen in the history of the state.

National Rural Livelihood Mission (NRLM)

NRLM has an ambitious mandate. It aims to reach out to all the poor rural families (BPL families) and link them to sustainable livelihood- opportunities. It will nurture them till they come out of poverty and enjoy a decent quality of life.

To achieve this, NRLM intends to place dedicated and sensitive support structures at various levels. These structures will work towards organising the poor, building their capacities and the capacities of their organisations, enabling them with access to finance and other livelihood-resources. The support institutions will play the roles of initiating the processes of organising

them in the beginning, providing them with livelihood -services and sustaining the livelihood- outcomes subsequently. The Institutions of the poor – SHGs, their federations and livelihood collectives – provide the poor, the platforms for collective-action based on self-help and mutual cooperation. They form a strong demand system. They build linkages with the mainstream institutions, including banks and government departments to address their core livelihood- issues and other dimensions of poverty. These institutions provide savings, credit and other financial services to meet their basic needs. These include consumption needs, debt redemption, food and health security and livelihood. They also empower their voice, increasing their space and bargaining power in dealing with service providers. With time, as the institutions of the poor grow and mature, they themselves become sensitive support-structures and institutions for the poor.

NRLM endeavours, through its dedicated sensitive support-structures and organisations at various levels, to reach out to all the BPL households in the country, and take them out of poverty through building their capacities, financial muscle and access, and self-managed self-reliant institutions; providing placement in jobs, and nurturing them into remunerative self-employment and enterprises.

Jharkhand State Livelihood Promotion Society (JSLPS)

JSLPS is formed under the aegis of 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.

Strategies/ Approaches to combat the poverty reduction:

- Collectivization of the poor and honing their capacity and skills
- Fostering an environment for financial literacy and enhancing the accessibility of financial services
- Sustainable Income enhancement by providing reliable livelihood opportunities
- Intra and inter department sectoral convergence

Jharkhand State Rural Livelihood Mission, Rural Development Department is working in **254 blocks in all the 24** districts of Jharkhand. The SHGs promoted

by JSLPS are called *Sakhi Mandals*. The idea is to reach out to all the rural poor and vulnerable households' members through *Sakhi Mandals* and currently **21.02 lakh** families are mobilized through **1.74 lakh** Sakhi Mandals. These *Sakhi Mandals* federated at the village and cluster level are called village organizations and cluster federations and as on Dec, 2018, **10,157** Village

Organizations and **402** Cluster Level Federations (CLF) were formed and are providing regular support to the *Sakhi Mandals* for the alleviation of poverty. 5 Community managed training centres (CMTC) have been established at the block level and there are plans to establish 19 more CMTC for the capacity building of community institutions.

Table 4.4 : Cumulative Coverage

Financial Year	No. of New Intensive Blocks Taken	Village	SHGs	HH covered
FY 2012-13	7	110	1,454	18,175
FY 2013-14	17	1,239	8,102	1,01,275
FY 2014-15	16	2,317	16,976	2,12,200
FY 2015-16	40	3,603	27,431	3,42,888
FY 2016-17	45	7,038	80,124	10,01,550
FY 2017-18	75	15,733	1,32,512	16,56,400
FY 2018-19	54	19,694	1,74,239	21,77,988

Financial Inclusion

Access to repeat finance at an affordable cost and financial literacy is one of the key strategies. The bankers are treating these institutions as probable and possible clients and the trust in them has considerably increased. JSLPS has initiated *Bank Sakhi* model where community institutions identify the SHG's member and place them in the bank branches for helping SHGs in bank related work. Similarly, banking correspondents are deployed to provide doorstep banking services to promote capacity-building for digital use, for improving their knowledge and enhancing digital connectivity. JSLPS is also helping SHG's member to get an insurance.

- 78,653 SHGs have received the revolving fund (RF) and 36,949 SHGs community investment fund (CIF).
- Rs 658 cr. has been mobilized through credit linkages from banks by 76,780 SHGs
- Total Active Banking Correspondents (as on Dec 2018) are 629.

Livelihood

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

Non-timber forest produce (NTFP) and other non-farming activities. JSLPS is trying to create a conducive environment to provide at least two livelihood options to each of the rural households.

In order to promote livestock rearing at the community level, JSLPS has introduced the **PASHU SAKHI** model. PASHU SAKHIs are identified at the village level to provide services like shelter management, vaccination, insurance of livestock etc. Around 9885 pashu sakhis and AKM have been groomed for the purpose.

1. **System of Crop Intensification (SCI/SRI) :** In-order to augment the production and hence the household income, later, to add on to the household income of the farmer, the SCI/SRI are promoted through community based cadre, Ajeevika Krisak Mitra. As on Dec.2018, 3.3 lakh farmers HH are involved in SRI and 2.2 lakhs in vegetable cultivation .
2. **Goat based livelihood intervention :** The small ruminants like goat are promoted to increase the income of rural HH preventive practices like –
 - Vaccination
 - Deworming
 - Management practices
 - Herbal medicine preparation and usage
 - Community Insurance.

Till date 2.2 lakhs HH are involved with goatery and backyard poultry activities.

3. Community Managed Sustainable Agriculture: Community Managed Sustainable Agriculture (CMSA) has been piloted with the support of the National Resource Organisation (SERP). After getting the satisfactory result it was extended with 30,000 farmers in 16 blocks

Key activities under CMSA

Technical support on field practice has been provided to the farmers to intensify the usage of non-chemical material under CMSA. There are many such practices which are promoted as substitute of chemical application in the agricultural practices which are: Neemastra, Agneeastra, Bramhastra, etc

4. Promotion of organic farming: In order to promote organic farming, 140 organic clusters were identified where the perspectives of livelihood in farm-activities and a survey of the existing community cadre (AKM & APS) and CMSA round will be conducted.

5. Producer's Group/producer's Company: In order to ensure the collectivization of the agricultural produce and sending the produce with effective price realization to the market, institutions of around 40-50 members each in about 1,900 producer's groups have been formed in the operational area.

SHG from a remote village of Jharkhand wins the National Award

In June 2018, *Grih Lakshmi Self Help Group* of Kula village of Bila Panchayat in Goilkera block, West Singhbhum has won the National Award for the *Best Performing SHG* among the 34 SHGs from across the country. The award was instituted by the Deendayal Antyodaya Yojana National Rural Livelihood Mission, which consists of a memento and a cheque of Rs. 1 Lakh.

The SHG is involved in NTFP, agriculture, animal husbandry as well as in resolving social issues in their village. They have successfully contributed to the construction of toilets under Swachh Bharat Mission and are encouraging pregnant women to go for institutional delivery along with family planning. Moreover, they are also ensuring food to the orphans and the elderly in the village with the help of the Ek Muthi Chawal Yojana/Programme.

Skills and Placement

JSLSPS has identified around 100 different trades which are being offered by 54 Programme Implementing Agencies (PIA) through their training centers based in the different districts of Jharkhand.

- 25,296 youth are trained on different trades against the target of 80,000 (for 3 years), out of which, 7,569 are placed.
- Around 1,13,000 youth are trained under the Rural Self Employment Institute (RSETI).

Non - farm

- *Incense Stick:* Incense Stick production-cluster is promoted in the five locations of the Ranchi district and 100 pedal machines have been installed in the Angara and Silli blocks for the production of incense sticks. Currently 200 women members are involved in production and marketing. Based on leanings and experiences, one other unit in Dumka has been installed

and around 100 SHG members are engaged in production and marketing.

- *Training and Production Centre (TPC):* TPC was established as state of the art centre with all modern machineries and equipment. It has been supported by providing assignments of preparing govt. school uniform, bags for the Dakiya scheme/DAY-NRLM and also helped the other departments.
- *Sanitary Napkin:* A unit of packing and distribution of sanitary napkins has been established. Currently the napkins prepared by it is being supplied to the SHGs.
- *Tamarind Processing:* The processing units for tamarind have been established in the different locations of Jharkhand by the SHGs members. A total of 388 MT of tamarinds were produced in the last year. Around 9000 members were involved in the collection, processing, packaging and marketing of tamarind

- *Solar Light (SoUL) Project:* JSLPS is working in partnership with the Ministry of New and Renewable Energy (MNRE) and Indian Institute of Technology Bombay (IIT-B) for the distribution of solar lamps under the Solar Urja Lamp (SoUL) scheme through the SHGs and their federations. The SHG members are engaged in assembling and distributing solar lamps. As on Dec 2018, 18 Assembling & Distribution centres and 120 enterprises for Repair & Maintenance of solar lamps have been established in the various project blocks. Around 7 lakh solar lamps have been distributed so far.

Social development and convergence

JSLPS is working towards the mainstreaming of PWDs, PVTG and aged people, and has started layering and converging activities of food, health, nutrition and WASH with the existing activities of NRLM to reduce morbidity, sporadic episodes of illness and decrease the out of pocket expenditure on health.

Connecting the under privileged and the underserved with entitlements is only possible when the demand of the entitlements is articulated and through convergence, the disadvantaged people will be served. Progress in this regard is mentioned below under the given heads :

- 3.45 lakhs IHHL constructed by VOs/Sakhi Mandal,
- Around 30,000 women trained as RANI MISTRI and engaged in construction work.
- Around 1500 Village Organisations have been trained on VHND services and Food Nutrition Health and WASH services
- Approximately 5000 VOs trained on VHND services
- Involvement of the SHGs in then packaging of food grains of PDS under Dakiya schemes to ensure provision at the door steps of PVTG families
- Witch hunting prevention campaigns

Dakiya Yojana- The Best example of Transparency, Employment and Decentralization

It is a scheme that has ensured food, employment and freedom from poverty for the PVTG families in Jharkhand.

The Dakiya Yojana was launched in April 2017. On the one hand, PVTG (Primitive Tribal groups) families are receiving 35 kg of rice per month free of cost, while on the other hand, women are also getting employment.

The main objective of the scheme is to provide 35 kg of free rice every month to the primitive tribes living in the far-flung areas of Jharkhand. The responsibility for packaging was handed over to the women of Sakhi Mandals run by the JSLPS. Each woman is paid Rs. 12 to pack a bag, out of which Rs. 2 is deposited in the village organization. The scheme was started with 7,385 primitive tribal families of the Sahebganj district but today its benefit is reaching out to 71,136 beneficiaries in the 164 blocks of the 24 districts of Jharkhand. The most primitive tribal families in Jharkhand are found in the Sahebganj and Pakur districts of the Santhal Parangana region, where the number of beneficiary families is about 20,000. The women of the Sakhi Mandals weigh and pack 35 kg rice in each sack and ensure that the sacks are properly stored. As they also come from primitive tribal families, they do not want to dupe any family of its rightful share. Since the tribal families got this work, transparency has increased significantly.

The Dakiya Yojana is thus ensuring not only provision of rice for the beneficiaries, but also making them self-sufficient.

Other Initiatives:

- Community Based Monitoring System: 800 Community cadres from the SHG members have been capacitated for the regular monitoring of SHGs on all standard parameters
 - Community Journalists : 50 community based journalists from SHG members have been engaged under the partnership with one leading newspaper of state.
 - Ajeevika One Touch Centre: 8 Ajeevika Touch Centres are activated for providing government e-services at the Cluster Level.
 - Custom Hiring Centre: 621 Centres have been established and are providing services at the community level
 - 1900 Producer Groups have been formed and are being nurtured to take up higher order of cultivation and aggregation.
 - 100 organic clusters have been developed.
- An MoU has been signed between the JSLPS, GoJ and Citizen Centres, to *open 100 Citizen Centres* (Jan

Seva Kendras) by the Cluster Level Federations (CLF) in Jharkhand. For this purpose, training sessions were organised at Ranchi in the month of July 2018 on the portal services of *We-Connect*. The participants were mainly CLF members and data entry operators. The uploading of documents, banking services, downloading of MIS materials and an introduction to the LIC services were also explained. Other financial services were also explained like Aadhar Enabled Payment System (AEPS) that included the function of banking services through Aadhar.

JSLPS has launched an ***Oil Distillation Unit*** aimed at creating an alternative and sustainable livelihood-opportunity for the advancement of the community and for the alleviation of poverty. This sophisticated technology is meant to extract oil from lemongrass which is being cultivated by the farmers in the vicinity of the oil unit. The extracted oil will be made available to the local entrepreneurs for essence, to be used in the manufacturing of products like lemon flavored soap, phenyl, perfumes, tea, etc. The basic objective of this venture is to help the farmers associated with the cultivation of lemon grass and the extraction of oil backed by genuine rates for their products and thus develop grassroot leaders and entrepreneurs. For this purpose one oil distillation unit was inaugurated at the Anigada village of the Khunti district.

Schemes under NRLM:

Skill DEED

The Jharkhand government launched the ‘**Skill DEED**’ course under DAY-NRLM. The Skill DEED (Discover, Explore, Engage, Deliver) course has been designed by JSLPS and NIRDPR, Hyderabad. It is a job oriented short term course in skill development. The Skill DEED course is challenging and is designed for the university/college graduates who have determination, commitment and passion to work in the rural sector. The candidates will acquire the right skills, knowledge and attitude for channelizing the aspirations of the under privileged rural youth and transform them into development-professionals in the skilling ecosystem.

Mahila Kisan Sashaktikaran Pariyojana (MKSP) - NRLM

The primary objective of the MKSP is to empower women in the agricultural sector by making systematic

investments to enhance their participation and productivity and also create and sustain agriculture-based livelihoods of the rural women. By establishing efficient local resource-based agriculture, wherein women in the agricultural sector 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. Once the production capacities of women in agriculture improve, food security is ensured for their families and communities.

Specific objectives of MKSP are as under :

- To enhance the productive participation of women in agriculture;
- To create sustainable agricultural livelihood opportunities for women in agriculture;
- To improve the skills and capabilities of women in agriculture to support farm and non-farm-based activities;
- To ensure food and nutrition security at the household and the community level;
- To enable women to have better access to the inputs and the services of the government and other agencies;

Key Achievements:

- 25525 farmers are engaged in lac cultivation
- 7552- farmers engaged in Medicinal Plant cultivation
- 2850- farmers are engaged in the production of RESHAM
- 51236- people are involved in Goat Rearing

The Jharkhand government is providing cows, goats, ducks, seeds and plants to the women-farmers. 90% of the price is being paid by the government and the remaining 10% by the beneficiaries. Now, women-farmers can have an alternate source of livelihood apart from agriculture. During the off- season for agriculture they can earn money by selling the eggs and meat. Also they can sell the animals in the local market and get ready cash, in case of emergency. This way each poor household is being empowered financially by providing it with multiple livelihood options. The poor don't need to get into the trap of the moneylenders who charge exorbitant rates of interest.

“There is no tool for development more effective than the empowerment of women.”

MGNREGA

MGNREGA has been providing wage-employment to the villagers, which is especially helpful during the non-farming seasons. The thrust of department of rural development through this scheme is construction of permanent and productive assets like community ponds, wells and livestock shelters. Under the convergence of schemes MGNREGA has been able to provide unskilled and semi-skilled work and promote income generating activities through creation of supportive infrastructure.

The government of India has approved a budget of Rs.1960 cr. for the financial year 2018-19 for the scheme. So, in line with this, the average projected approved budget for each rural GP (i.e. 4398 nos.) would be in the range of Rs. 50-60 lakhs and about Rs. 5-6 lakhs for each ward (approximately 32000 nos.).

Preparation of the Annual Action Plan (AAP) and Labour Budget for 2019-20

The following conditions have to be taken into consideration while preparing the Labour Budget (LB) & Annual Action Plan (AAP) guidelines for the coming financial year:

- Out of the total plan, at least 75% of it shall be approved under the NRM works and the prioritization of works shall follow the ‘Ridge to Valley’ principle that means the works of the ridge-area treatment shall be taken on a priority-basis.
- In the case of the approval of the plan of material intensive works (like well, sheds etc.), schemes of the most vulnerable households as per the unanimous decision of the respective Ward Sabha shall be given priority.

Recent *Developments under the scheme* are as follows:

- In the fiscal year 2018-19, the total expenditure of Rs. 1,11,050 lakhs has been incurred for creating 403.17 lakh mandays and 10.61 lakh households have been provided with work.
- **Priority to Soil and Water Conservation:** In view of the lack of rainfall, maximum work under MGNREGA has been undertaken in soil and water conservation. In the last three years, these works have been built:-

- Ponds- 23,965
- Irrigation Wells- 38,768
- Compost Pits- 34,998
- Common Horticulture- 4500 acres
- In addition, large number of works related to the Upland Treatment has been started. Various useful works related to agriculture are being done for sustainable livelihood promotion under MGNREGA and in the financial year 2018-19, 94.3% of the total expenditure has been done on agriculture and agriculture-related work, which is the highest in the country.
- **Timely Payments:** Jharkhand is among the top 5 states in terms of the generation of timely payments. Around 99% of payments are generated timely in the state.
- **DBT under MGNREGA:** A total of 6417534 DBT transactions have been done in 2018-19. Presently, 96.3% active workers’ accounts have been seeded with their Aadhaar, out of which 90.5% have been verified. Simultaneously, 99.6% of active workers’ post office-accounts have been converted into bank accounts. Cent per cent wage payment is being done in the bank accounts of the labourers. Camps as well as door-to-door campaigns are being organized in each gram panchayat to collect the remaining aadhaar and bank account with the consent of the active workers. 82.2% of the accounts of active workers have been converted into Aadhaar Based Payment System (ABPS). There is regular monitoring of the seeding of aadhaar, verification and APB conversion.
- **GeoMGNREGA:** Jharkhand stands 12th among the top performers in terms of Geotagged assets of MGNREGA. Approx. 85% of the MGNREGA assets are geotagged.
- **GIS based planning:** GIS Facility is to be established at Ranchi to provide GIS based planning. This will help to optimize resource utilization, sound decision-making and holistic GP planning.
- A total of **1137874 assets** have been created till date in Jharkhand.
- Many households get benefited by the scheme through the creation of assets. A total of **1061103**

HHs have benefited in 2018-19.

- A total of **869646 Individual category works** were completed in 2018-19 in Jharkhand.
- **Panchayat Strengthening:** As per the annual master circular 2018-19 of MGNREGA on Implementing Agencies, it is instructed that, at least fifty per cent of the works in terms of cost shall be allotted to the Gram Panchayats for implementation. In Jharkhand, though the PRI representatives are serving only their 2nd term, but under MGNREGA they form the sole implementing agency (i.e. 100% of cost are already allotted to GPs), and for that, their acquisition of knowledge in and around the processes of MGNREGA is the most crucial component in fulfilling the spirit of the act.
- Realizing the above mentioned need, the MGNREGA Planning Cell of the Department of Rural Development, after several brain storming sessions with the stake holders, have helped the government to issue some of the most important circulars and guidelines specifying the role of Gram Panchayats (especially ward members and

mukhiyas) in the specific processes of planning, implementing and monitoring of MGNREGA to enhance transparency and accountability in the programme. For example, the ward members and/or mukhiyas now have to certify the ward level planning formats, fill up muster rolls (MRs), the self certified report of beneficiaries up to the scheme estimated amount of rupees 1.5 lakhs and the scheme-completion certificate before the final closing of the scheme in NREGASoft. The Programme Officers are directed to issue the monthly work progress report (the 2B report from MIS's *social audit* section) to each mukhiya, so that, it can be discussed among all the Gram Panchayat Karyakarini Samiti members (Mukhiya, Up-mukhiya and all the other ward members) to review the status as it really is at the grass-root level. A detailed guideline on activities to be done at the weekly rozgar diwas has been issued by the department, so that the Gram Panchayat itself can address issues related to the non-availability of job cards, receiving of work demands etc. and by doing so the capacity of the panchayat functionaries shall be enhanced.

Table 4.5 : Progress of MGNREGA in Jharkhand

WORKERS' PARTICIPATION PROGRESS	FY 2018-2019	FY 2017-2018	FY 2016-2017	FY 2015-2016
Approved Labour Budget [In Lakhs]	700	700	700	646.05
Persondays Generated [In Lakhs]	403.17	592.75	707.44	585.61
% of Total LB	57.6	84.68	101.06	90.65
% as per Proportionate LB	84.15			
SC persondays of total (%)	11.08	11.05	12.04	12.07
ST persondays of total (%)	27.11	28.68	32.42	38.95
Women Persondays of total (%)	38.74	37.33	35.72	32.75
Average days of employment per HH	38	41.03	40.6	52.01
Average Wage rate/day/person (Rs.)	167.99	167.98	166.98	161.97
Total No. of HHs which completed 100 Days Employment	11,088	57,524	37,149	1,74,276
Total No. of HHs which Worked [In Lakhs]	10.61	14.45	17.42	11.26
Total No. of Individuals who Worked [In Lakhs]	13.41	19.08	24.7	15.68
Differently-abled persons who worked	5236	7248	7857	5719

Source: www.nrega.nic.in (accessed on 28/12/2018)

WORK PROGRESS	FY 2018-2019	FY 2017-2018	FY 2016-2017	FY 2015-2016
Number of GPs with NIL exp	166	127	104	133
Total No. of Works Taken [In Lakhs]	7.08	8.89	6.46	2.59
Number of Ongoing Works [In Lakhs]	5.2	6.05	4.38	1.9
Number of Completed Works	1,88,209	2,83,455	2,08,365	69,169
% of NRM Expenditure (Public + Individual)	63.42	51.76	74.64	65.06
% of Category B Works	83.81	79.64	55.26	33.52
% of Expenditure on Agriculture & Allied Works	94.33	92.08	83.94	67.91

Source: www.nrega.nic.in (accessed on 28/12/2018)

FINANCIAL PROGRESS	FY 2018-2019	FY 2017-2018	FY 2016-2017	FY 2015-2016
Total amount Released from the centre (In Lakhs)	128085.5	135264.6	167913.2	96989.31
Total Availability (in Lakhs)	128085.5	155718.7	190956.1	103566.7
Percentage Utilization	86.7	98.16	96.29	128.55
Total Expenditure (Rs. in Lakhs.)	1,11,050.28	1,52,848.96	1,83,872.39	1,33,131.64
Wages (Rs. In Lakhs)	68,226.66	99,643.19	1,18,352	88,274.47
Material and Skilled Wages (Rs. In Lakhs)	38,020.56	45,843.21	57,220.25	38,927.90
Material Exp (%)	35.78	31.51	32.59	30.6
Total Administrative-Expenditure (Rs. in Lakhs.)	4,803.05	7,362.56	8,300.13	5,929.27
Admin Exp (%)	4.33	4.82	4.51	4.45
Average Cost/Day/Person (In Rs.)	240.77	258.06	257.82	237.48
% of Total Expenditure through EFMS	99.88	99.86	99.65	99.82
% payments generated within 15 days	99.11	95.13	80.21	71.44

Source: www.nrega.nic.in (accessed on 28/12/2018)

New initiatives under MGNREGA :

SECURE (Software for Estimate Calculation Using the Rural Rate of Employment): This is a web based application for creating estimates for the MGNREGA works. It has been implemented in Jharkhand on a pilot basis. SECURE is a workflow based system.

Mode of functioning:

- In SECURE, the work name and work-codes are received from the MGNREGA MIS to the concerned Block/GP official after the approval of the Labour budget. The official of the Block/GP creates the detailed estimates. The estimates are accorded AS/TS sanctions. SECURE soft generates Detailed Project Report (DPR).
- After according AS/TS sanctions in SECURE,

all details related to AS/TS, activity & material may be pulled from SECURE to Nregasoft through web services. This will prevent re-entering the details. Work allocation and muster roll generation should take place in the MIS after completing the above processes.

- All the freezed works are sent through the National Remote Sensing Centre (NRSC) to Bhuvan for Geotagging

Benefits of SECURE:

- Online generation and approval of estimate—without any manual intervention
- e-governance ensured through transparency and accountability

- The state will have access to all the estimates online, anytime and anywhere
- Tailor made as per the state requirement
- Estimate accuracy can be ensured
- Speedy approval of estimates
- For creating an estimate that every state is using their own LMR rates and SOR as per their state-specific rules adopted for MGNREGS works. Whenever the LMR changes, estimates which are not accorded TS will get automatically recalculated with a new rate

e-Saksham - digital learning platform for MGNREGS

- Massive open online course to strengthen the technical wing of MNREGS.
- To learn about the Integrated Natural Resource Management (INRM) and Web based GIS applications such as Bhuvan, Google Earth Pro etc.
- It also has guidelines for developing GP Plans for INRM, Mission Water Conservation (MWC), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), MGNREGA, etc.
- To enhance knowledge about watershed, command area development, afforestation, flood and drought management, agriculture/

horticulture and allied livelihoods. To get hands-on practice of using Bhuvan Portal of NRSC and Google Earth Pro tools.

- Essentially for barefoot technicians, technical assistants and assistant engineers at the block level, all the technical officers of Rural Development and line departments at the district and state level and all the technical officers of the Non Governmental Organizations working in the field of Natural Resource Management.

Planning Cell

The Department of Rural Development has entered into an MoU with the Tata Trust and the Jharkhand State Livelihood Promotion Society to set up a Planning Cell within the department. The Planning Cell comprises of experts working on the different aspects of MGNREGA. The Planning Cell members regularly visit the fields to monitor the ground situations and provide an in-depth feedback for improvements in the policies, guidelines etc. Its job also includes the understanding and implementation of issues and identifying the areas which need to be focused. They apprise the department regarding the grievances and complaints which need to be addressed.

Presently the Planning Cell comprises of 5 members working in the following domains:

Designation	Thematic Anchorship
State Planning Cell Coordinator	Anchoring the cell, facilitating the people’s driven planning and capacity building of stakeholders
Thematic Coordinator	Spearheading the ‘Agro-horticulture model’ initiative
Convergence	Giving shape to the possibilities of complementary convergence
Monitoring, Evaluation and Grievance Redressal	Streamlining the processes of grievance redressal mechanism
Programme Implementation Support	Coordinating the relation among partner CSOs, local administration and the department in the project MGNREGA-NRLM-CFT

With the passage of time, it has been found that the professional expertise of the members of the planning cell with the administrative anchorage of the department, has helped in grounding MGNREGA in different spheres reflecting its true spirit.

The Planning Cell’s key commitments for the year 2018-19, however, can be summarized below:

- Scaling up plantation initiative

- Deepening complementary convergence with the line departments and associates
- Institutionalizing the role of women collectives in MGNREGA
- Institutionalizing decentralized planning exercise in the state
- Establishing the processes of accountability and transparency

- Streamlining the processes of material procurement
- Facilitating the creation of livelihood-enhancing INRM based assets in CFT blocks
- Creating a pool of Block level Master Trainers & Community Resource Persons (CRPs)

In the fulfillment of its commitment, with the support of the cell, the Birsa Munda Bagwani Yojana has been scaled up from nearly 400 acres to nearly 4000 acres.

Watershed Based Planning in MGNREGA

Under the MGNREGA-NRLM-CFT Project, one of the deliverables which has been added by the government of Jharkhand is that each of the CFT blocks must take up one village in each panchayat and undertake community -led planning of assets based on a watershed-development approach. In other words, nearly 1300 villages across 76 blocks of Jharkhand are being taken up for planning the assets to be taken up under MGNREGA so as to ensure that the watershed development takes place, soil and moisture are conserved and the ground water level rises. This has been taken up with full rigour by the department. All stakeholders, from DDCs to the ward members in each village, are being trained in order to ensure the implementation of this plan.

Guidelines for Dealing with Rejected Payments

The shift to Aadhaar Based Payment of MGNREGA wages has brought in a new set of issues which sometimes led to workers' payments not being credited to their accounts. For instance, it was found that even after the payments were processed by the relevant authorities (in the case of Jharkhand it is the Panchayat) and the Fund Transfer Order (FTO) has been done in order to transfer wages to workers, the money would still not reach the workers' accounts, due to issues such as improper linking (seeding) of Bank Accounts, Workers' Job Cards and their Aadhaar Numbers. Payments would be rejected by the system and the system would give errors such as "Inactive Aadhaar". Therefore, the department, in partnership with civil society members formed a detailed set of guidelines to deal with such "rejected payments".

MGNREGA-NRLM-CFT Project

The government of India introduced the MGNREGA-NRLM-CFT project in July, 2014 to improve effective implementation, governance, employment and to ensure

an active participation of the villagers in the NREG scheme. Jharkhand has benefited particularly from the project in almost every aspect of the MGNREGA implementation.

Since July, 2014, the MGNREGA-NRLM-CFT project is being successfully implemented in Jharkhand in 76 blocks and has resulted in considerable improvements and innovations in MGNREGA implementation – many of which were inconceivable without the CFT Project. The project has allowed the Rural Development Department in Jharkhand to work hand in hand with professionals and experts from disciplines such as agricultural engineering and technology, social work, civil engineering, social entrepreneurship etc. In addition, it has also allowed the department to work along with the civil society organizations which have had a long standing experience of helping rural workers access their rights and enhance their livelihoods. This engagement of professionals and committed social workers has contributed immensely towards several innovations that the department has undertaken over the last four and a half years.

As a result, there have been several improvements in the MGNREGA processes and in the quality of assets. It has also led to better safeguarding of the rights of the workers. The members of SHG have been engaged as mates (supervisors). Many innovative pilot projects such as Birsa Munda Bagwani Yojana and planning of MGNREGA works in a watershed development approach with focus on water conservation structures have been taken place because of CFT projects. Needless to say, the impacts have been different across the 76 blocks and have varied depending upon the capacities, capabilities, interest and passion of the district administration, the block administration and the CFT CSOs. While some blocks have managed to do very well in setting up grievance redressal mechanisms under MGNREGA, there are others which have set up model plantations while still others have managed to empower the local SHGs to take an active part in the implementation of the MGNREGA scheme.

The CFT projects have led to several improvements in implementation of MGNREGA. Some of which are listed below :

- *Improvements in the quality of assets created:* The laying out and technical supervision of schemes

by mates with the help of the CFT members has enabled the creation of hundreds of good quality assets.

- *Rozgar Diwas*: Another achievement of the CFT project is facilitating the weekly RozgarDiwas at Panchayat Bhawans where the Gram Rozgar Sewak and the Panchayat Sewak sit to take in issues related to the processing of job applications, bank account applications, the payment of wages and the payment of unemployment allowances, job card renewal, correction of errors in job cards and information related to delay in wage payment.
- *Good Governance Initiatives*: Over the years, CFTs have trained the MGNREGA functionaries, workers and mates on various good governance -initiatives. There has been significant improvement in the availability of worksite facilities, Citizen Information Board and seven registers are maintained in the Panchayats.
- *Skilling local people for the improved implementation of the MGNREGA*: The CFT project has led to the creation of a large pool of local persons with various skills required for the improved implementation of the MGNREGA. These skills include the planning of MGNREGA schemes based on available natural resources and people's needs, preparing technical estimates of schemes, mobilizing workers to demand for work, job card and bank account, laying out schemes, measuring work done by workers, using MGNREGA Soft for the monitoring of MGNREGA etc. Many of these resource persons are training the people of other blocks as well on MGNREGA.

MGNREGA Sahayta Kendras

To increase transparency and accountability in the implementation of MGNREGA and to increase awareness among the villagers about MGNREGA, the Department of Rural Development, Jharkhand has decided to set up MGNREGA Sahayata Kendras (NSKs) in all the blocks of Jharkhand. These NSKs would be provided with a room and other facilities within the premises of the block office by local community based organisations. Till now, the Department of Rural Development has signed MoUs with 15 Community

Based Organisations for setting up NSKs. These NSKs have been functioning since August, 2017

These NSKs have been extremely instrumental in:

- Strengthening the MGNREGA implementation
- Helping the MGNREGA workers find their voice in society and before the state authorities.
- Sensitizing Block level officials to the problems of MGNREGA workers and making them more accountable to the rural poor
- Training workers to file grievances when their rights are violated
- Helping them follow up on their grievances
- Creating awareness about their rights and helping them attain their rights under the MGNREGA

Birsa Munda Bagwani Yojana (BMBY) - 'A new milestone for Rural Livelihood'

Jharkhand has good rainfall and at the same time, the structure of the land is such that there is no water accumulation. The benefits of such climate and land structure can be utilised for crop diversification along with horticultural crops like vegetables and fruits. The 'Birsa Munda Horticulture Scheme' implemented under MNREGA is an effort to financially empower the tribals, the small and marginal farmers. Through this scheme, long-term income generating assets such as mango plantations are being utilized using the MNREGA resources.

Objective

In Jharkhand, the land worth cultivating is very low. Many farmers have about half to one acre of up-land (tand land) in which no cultivation is being done or is not suitable for cultivation. However, plantation in these lands, especially mango, can provide the owners of these lands annual income for 30-35 years. This means that the barren / tand land will change into green fertile ground. After three years, the inflow of cash will start coming from the mango plant and before that the people can grow cash crops (especially vegetable cultivation) and pulses on the same piece of land.

Why Mango Plantation:

- Horticultural land in Jharkhand (60% of the total cultivated land is Up-land) is abundant and the climate is sub-tropical, which is suitable for horticulture.

- Mango plantation can provide fixed income each year for about 30-40 years and it is ready to bear fruit within a short duration (3 to 4 years).
- In Jharkhand, the production of mangoes is low but the demand is high. Transportation and storage of mango are easy and it can also be stored for a long period.
- Jharkhand is familiar with horticulture. Small species of plants are being planted, whose management is easy and are easily managed by women.

For all these reasons, the Horticultural Scheme was launched in Jharkhand, whose main objective was to create long term asset for the people from the wastelands.

Mango Plantation format under MNREGA: An acre of mango plantation under MNREGA is estimated to cost approximately Rs 1,68,157. In one acre of land, 112 mango plants are planted in side and about 96 to 100 high wind-breaking plants are planted around the field to protect the orchard from animals & strong winds. There is also provision of construction of ditches for protection from animals.

Therefore, the farmer can start earning Rs. 30,000 from his one acre barren land from the first year, which will be around 1.5 lakh per year after 10 years and this will ensure an income for 20 to 25 years. Along with this, the plants surrounding them will be converted to lakhs of rupees after 10 to 15 years.

Table 4.6 : Details of estimated earnings from one acre land (In Rs.)

Items	1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr	From 10th Yr
MNREGA	16800	16800	16800	0	0	0
Vegetable cultivation	15000-20000	20000-25000	25000-30000	25000-30000	15000-20000	0
Mango Cultivation	0	0	0	30000-35000	40000-50000	120000-150000
Total Income	30000-35000	35000-40000	40000-45000	55000-65000	55000-70000	1-1.5 Lakhs

Progress of BMBY

Keeping in mind the development of the up-land and soil-water conservation, the pilot of 'Birsa Munda Horticulture Scheme' was carried out in the FY 2016-17 in the nine blocks of 'Khunti, Gumla, Latehar and Pakur' in the state under which 595 families of 32 village panchayats planted in about 400 acres of their own private land. In the pilot project, those blocks were selected in which the NRLM-MGNREGA-CFT project

is being organized by the active NGOs (CSOs), so that these NGOs can raise the awareness of the workers and beneficiaries. As a result of the success of the pilot project, in the year 2017-18, the scheme was expanded in the 46 blocks of the 14 districts of the state, out of which 1902 families were benefited and this is being extended further to all the districts of the state in 2018-19. The scheme is being implemented in 2902.63 acres of the total 200 blocks in the financial year 2018-19.

Table 4.7 : Progress of BMBY

Financial Year	Total No. of Districts	Total No. of Blocks	Total No. of Panchayats	Total No. of Beneficiaries	Total Acreage
2016-17	04	09	34	506	397.79
2017-18	14	46	187	1902	956.42
2018-19	24	199	769	3667	2902.63
Total	24	200	990	6045	4256.8

Details of 'Birsa Munda Bagwani Yojana' implemented in the FYs 2016-17, 2017-18 and 2018-19

The following decision was taken by the department for

the successful implementation of this scheme:

- *State Level Advisory Committee was constituted:* In this scheme, the officials of various departments, members of the department of agriculture and

livestock and agricultural universities, ICAR experts and non-governmental experts were involved in providing technical support and administrative assistance. It is mandatory to have a meeting at least once in 3 months. These committees provide guidance and suggestions to the department in making high-level decisions for the improvement of this scheme.

- *Training and Trainers:* The capacity-enhancement of beneficiaries is necessary for the successful implementation of the scheme. For this, 4 block-level chief trainers (total 800) were trained for each block. A team of 60 coaches has been formed at the state level to train them. All block-level trainers are being given a three-day training twice and their continuous capacity enhancement is being done through field trips, various IEC mediums, whatsapp groups, etc.
- Departmental *guidelines* were issued to purchase horticulture related materials and their standards were closely monitored.
- *Convergence with the other departments:* Support from various governmental and non-governmental institutions, such as the Agriculture Department, Land Conservation Department, Agricultural Science Centre, ICAR-Ranchi, TATA Trust and its affiliates, is being taken to provide farming equipment, irrigation equipment, technical assistance and to increase people's participation.

Future Strategies

Given Jharkhand's landscape, soil quality and climate, agro-horticulture and agro-forestry are highly needed and this model will be more helpful in financially empowering the tribals and the small and marginal farmers. In view of this requirement, the department has decided, in addition to fruit bearing plants, to plant trees of Arjuna and Semiyalata to promote tasar silk and lac based livelihood. Under fruit bearing plantation, it has been decided to plant other fruits such as guava, lemon, thai ber, etc. Under the Bagwani Yojna, through the convergence with Jharkhand State Livelihood Mission, cultivation of HVA (high value crops) like vegetables, aromatic plants such as lemon grass, palmarosa, etc., and medicinal plants such as aloe-vera etc is also carried out. Moreover it has been decided to provide beneficiaries with drip irrigation facility under the

JOHAR project.

IRRIGATION

Eighty per cent of the rural population of Jharkhand is dependent on agriculture for their livelihood. Therefore, the development of Jharkhand is possible through the development of farmers.

Jharkhand State Watershed Mission under Rural Development Department is implementing watershed development projects in the state. The main objective of this programme is to conserve soil and moisture and mitigate drought through ridge-to-valley-approach of treatment on village saturation basis. The progress of the projects under this mission is as follows:

1. Under **Pradha Mantri Krishi Sinchai Yojana-Watershed Development Component (PMKSY-WDC/IWMP)**, a total of 144 watershed projects has been sanctioned (1st Batch to 5th Batch) out of which 42 projects (20 nos of 1st Batch & 22 nos of 2nd Batch) are already closed. At present, 102 Watershed projects are being implemented. The details of the physical progress of the Watershed projects till date are as follows:
 - a) **Soil and Moisture conservation measures** i.e. Earthen Field bunding, Trench-cum-Bund, WAT, Staggered Trench, Contour trench, Land levelling etc. – **9577.18 Ha**
 - b) **Land Development** i.e. Afforestation, Horticulture, Agriculture, Vegetable cultivation etc. – **4186.70 Ha**
 - c) **Vegetative and Engineering Measures** i.e. Loose Boulder Structures, Gully Plugs, Brush wood Checks, Earthen Checks etc. – **227858 Cu.mtr**
 - d) **Water Harvesting Structures** i.e. New Pond, Dobha, Check Dam, Tank etc. – **8048 nos.**
 - e) **Irrigation Potential created** – **12072 Ha**
2. Under **NABARD-RIDF Watershed projects**, 29 projects have been sanctioned under the state plan. The details of the physical progress till date are as follows:
 - a) **Soil and Moisture Conservation Measures** i.e. Earthen Field Bund, Trench-cum-Bund (TCB), Water Absorption Trench (WAT), Continuous Contour

Trench (CCT), Staggered Contour Trench (SCT) etc. – 16000 Ha.

b) **Water Harvesting Structures** i.e. Pond, Dova etc. – 1434 nos.

c) **Irrigation Potential created** – 2151 Ha.

Under the Mission Water Conservation (MWC), 206 irrigation deprived blocks and 4 over exploited blocks are the focus areas for the creation of water harvesting structures.

A major portion of the funds under MGNREGA, PMKSY & soil conservation department is being utilized for water conservation specifically through the watershed approach.

JSLPS organises regular exposure visits for the farmers to fields where PMKSY and JHIMDI are already implemented, to make the farmers aware about the costs and benefits and provide orientation on the basics of watershed development and its impact upon the lives

and livelihoods of the rural population.

Pradhan Mantri Krishi Sinchai Yojana (PMKSY)

Har Khet Ko Pani

This scheme aims to accord high-priority to water conservation and its management. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been formulated with the vision of extending the coverage of irrigation ‘*Har Khet ko pani*’ and improving the efficiency of water-use ‘*More crop per drop*’ in a focused manner with an end to end solution on source-creation, distribution, management, field application and extension activities.

The Bokaro district has shown promising development, with 46% of completion in the current fiscal and similar percentage (48%) of financial expenditure of the target. The other districts could learn from the methods and techniques used by Bokaro to replicate similar growth and progress.

Table 4.8 : Physical Progress on Micro Irrigation under PMKSY in Jharkhand

District	Physical Target for 2018-19		Total Physical Target for 2018-19	Physical Achievement up to November, 2018		* Total Physical Achievement up to November, 2018	% Achievement
	Drip	Sprinkler		Drip	Sprinkler		
BOKARO	75.00	75.00	150.00	42.00	27.00	69.00	46.00
CHATRA	375.00	375.00	750.00	20.00	70.00	90.00	12.00
DEOGHAR	75.00	75.00	150.00	5.00	8.00	13.00	8.67
DHANBAD	375.00	375.00	750.00	35.00	5.00	40.00	5.33
DUMKA	375.00	375.00	750.00	10.00	10.00	20.00	2.67
EAST SINGHBUM	375.00	375.00	750.00	15.00	15.00	30.00	4.00
GARHWA	75.00	75.00	150.00				
GIRIDIH	75.00	75.00	150.00				
GODDA	75.00	75.00	150.00				
GUMLA	525.00	525.00	1050.00	65.00	80.00	145.00	13.81
HAZARIBAGH	375.00	375.00	750.00				
JAMTARA	75.00	75.00	150.00				
KHUNTI	375.00	375.00	750.00	27.00	20.00	47.00	6.27
KODERMA	68.00	68.00	136.00				
LATEHAR	75.00	75.00	150.00	7.00		7.00	4.67
LOHARDAGA	375.00	375.00	750.00				
PAKUR	75.00	75.00	150.00				

District	Physical Target for 2018-19		Total Physical Target for 2018-19	Physical Achievement up to November, 2018		* Total Physical Achievement up to November, 2018	% Achievement
	Drip	Sprinkler		Drip	Sprinkler		
PALAMAU	375.00	375.00	750.00	10.00	5.00	15.00	2.00
RAMGARH	375.00	375.00	750.00	5.00	5.00	10.00	1.33
RANCHI	3750.00	3750.00	7500.00	285.00	130.00	415.00	5.53
SAHEBGANJ	75.00	75.00	150.00				
SARAIKELA KHARSAWAN	375.00	375.00	750.00	45.00	60.00	105.00	14.00
SIMDEGA	75.00	75.00	150.00				
WEST SINGHBHUM	375.00	375.00	750.00				
Total	9218.00	9218.00	18436.00	571.00	435.00	1006.00	5.46

#Area in Hectares

Source: www.pmksy.gov.in

The districts of Jharkhand could progress in irrigation with the farmers' awareness about the benefits of drip-irrigation like the need for less requirement of water, the use of fertilizers and how the less use of water and fertilizers could help to maintain the nutritional

levels of the soil and the costs saved by the adoption of this method. Along with this, the farmers need to be provided with subsidies or some financial support to reduce the initial cost of the technology. One such initiative is mentioned below - JHIMDI.

Table 4.9 : Financial Progress of Micro Irrigation under PMKSY in Jharkhand

District	Financial Target for 2018-19		Total Financial Target for 2018-19	Financial Achievement up to November, 2018		Total Financial Achievement up to November, 2018	% Achievement
	Drip	Sprinkler		Drip	Sprinkler		
BOKARO	30.79	25.79	56.58	17.25	10.00	27.25	48.16
CHATRA	153.92	128.95	282.87	6.50	27.00	33.50	11.84
DEOGHAR	30.79	25.79	56.58	2.00	3.00	5.00	8.84
DHANBAD	153.92	128.95	282.87	14.00	1.80	15.80	5.59
DUMKA	153.92	128.95	282.87	4.25	3.80	8.05	2.85
EAST SINGHBUM	153.92	128.95	282.87	6.00	5.50	11.50	4.07
GARHWA	30.79	25.79	56.58				
GIRIDIH	30.79	25.79	56.58				
GODDA	30.79	25.79	56.58				
GUMLA	215.49	180.53	396.02	25.50	30.30	55.80	14.09
HAZARIBAGH	153.92	128.95	282.87				
JAMTARA	30.79	25.79	56.58				

District	Financial Target for 2018-19		Total Financial Target for 2018-19	Financial Achievement up to November, 2018		Total Financial Achievement up to November, 2018	% Achievement
	Drip	Sprinkler		Drip	Sprinkler		
KHUNTI	153.92	128.95	282.87	12.00	7.00	19.00	6.72
KODERMA	28.35	23.75	52.10				
LATEHAR	30.79	25.79	56.58	3.20		3.20	5.66
LOHARDAGA	153.92	128.95	282.87				
PAKUR	30.79	25.79	56.58				
PALAMAU	153.92	128.95	282.87	4.30	1.80	6.10	2.16
RAMGARH	153.92	128.95	282.87	2.20	1.75	3.95	1.40
RANCHI	1539.19	1289.48	2828.67	120.00	48.00	168.00	5.94
SAHEBGANJ	30.79	25.79	56.58				
SARAIKELA KHARSAWAN	153.92	128.95	282.87	18.00	23.00	41.00	14.49
SIMDEGA	30.79	25.79	56.58				
WEST SINGHBHUM	153.92	128.95	282.87				
Total	3784.05	3170.11	6954.16	235.20	162.95	398.15	5.73

*Rs. in Lakhs

Source: www.pmkysy.gov.in

JHIMDI

Jharkhand Horticulture Intensification by Micro Drip Irrigation Project 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 ha. As the state does not possess any perennial river and has undulated topography, the 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, the promotion of Micro Drip Irrigation (MDI) would contribute to the intensification of horticulture in Jharkhand. The farmers would also gain from increased water-use efficiency, improved yields, precision in the application of fertilizers and plant nutrients as well as saving in labour and energy.

Japan International Cooperation Agency (JICA) recognizes the significance of livelihood-improvement and poverty-alleviation in rural areas and Horticulture

Intensification by Micro Drip Irrigation project shall contribute towards the development of the agricultural and horticultural sectors, poverty alleviation and also gender empowerment in the state of Jharkhand.

The Jharkhand Horticulture Culture Irrigation & Micro Drip Irrigation (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 will be useful in low water-level areas. The farmers supported by the project are members of Self Help Group (SHG) formed by Jharkhand State Livelihood Promotion Society (JSLPS) and own or lease small farmlands. The project adopts a holistic approach where in the farmers are provided with MDI system, poly nursery house and vermi-compost unit along with intensive training on horticulture and marketing.

It is envisaged that the average yield of the major horticultural crops and the net annual average farm income per household for the MDI farmers would double as a result of project interventions.

Project Objectives

- Enhance household incomes from diversified farming and on-farm activities
- Capacity building of community on improved MDI technology and wider dissemination of technology.
- Training of SHG members in nurturing micro-enterprises' promotion, managing group funds, arranging micro credit from village organisations and ensuring pay-back for the replication of technology in a sustainable manner
- Public Private Community Partnership (PPCP) through the engagement with financial institutions, input suppliers and market forces, collectivization of the products and linkages with the market. Convergence with government programmes for replication.
- Developing a sustainable management system through the promotion of Community Resource Persons for the escalation of technology and day-to-day technology support.
- The establishment of infrastructure for gradation and storage and the development of market information system and support.

Project Components

1. **Agriculture Infrastructure Development Programme:-** The infrastructure and equipment components under the programme are listed below:

Activity	Quantity	Subsidy/grant
MDI Package (MDI, PNH, VCU)		
MDI System	30,000	40% Grant, 60% by Farmer
Poly Nursery House	30,000	100% Grant
Vermin Compost Unit	30,000	100% Grant
Agricultural Tools and Equipment		
Agricultural Tools	600	100% Grant
Zero Energy Cool Chamber	150	100% Grant
Agricultural Facilities		
Multi-purpose Community Centres	15	100% Grant
Godown cum Cold Storage	1	100% Grant

2. **Farmer's Support Programme:-** This component focuses on the institution-building and capacity- building of the staff and field resource persons. A series of training of trainers (TOT) will be conducted on the relevant technical aspects such as basic O&M of MDI facilities, horticultural production-techniques, and marketing including postharvest techniques. As for the organisational and financial management of the MFGs, the training programme should be formulated in close alignment with the existing training on institution-building under NRLM being conducted by JSLPS. Exposure-visit to farmers and staff shall be one of components under it. Training material developments, documentation, workshop and organising seminars is part of this component.
3. **Project Management:-** A Project-Management unit will be set up for this project. This unit will work for the project and the positions have been mapped with the positions in JSLPS HR manual. The Project Management cost includes the cost of establishment of offices only at the state level; the district and the block units are with the existing block and district offices under NRLM. The other costs include MIS development, procurement of equipment, vehicle, office rent, undergoing base, mid and end line survey, environment-survey, exposure visit and research. Thus a total of 200 numbers of staff along with 1000 community resource persons will be supporting the project.
4. **Consulting Services:-** The project consultant will be employed to assist PMU for the smooth and efficient implementation of the project (J-HIMDI). International and national-level consultants shall be engaged in consultation with JICA. This unit will support the Project Management Unit in the state and provide technical support as well as support in capacity-building of the staff.
5. **Convergence and state cost:-** This project will try for convergence with the other schemes and Line Departments not only from the financial point of view but also from the technical point of view for enhancing the impact and sustainability of the project. One of the most significant convergences

will be with NRLM as this project is the layering of the additional means of livelihood with SHG. As the organizational arrangement for the project is based on the existence and functions of SHGs, which have been and would further be promoted under NRLM, a close coordination is required with NRLM. JSLPS/RDD stated that it will endeavour to develop close linkage with Pradhan Mantri Krishi Sinchai Yojana. Further the availability of water resources, the prerequisite for the introduction of MDI, convergence with Integrated Watershed Management Programme (IWMP) and Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) under RDD will be ensured. For agricultural support, Agricultural Technology Management Agency (ATMA) and Krishi Vigyan Kendras can come up since they provide the farmers with various skills and knowledge on farming techniques under their respective schemes.

INFRASTRUCTURE

Pradhan Mantri Awas Yojana (PMAY-G)

- PMAY-G was launched by the honourable Prime Minister at Agra in November 2016, in view of the government's commitment to providing "Housing for All" by 2020. In Jharkhand the scheme was launched by the honorable Chief Minister at the Kanke block in February 2017.
- PMAY-G aims at providing a pucca house, with basic amenities, to all the homeless householders and those households living in kutcha and dilapidated houses, by 2022. The immediate objective is to cover 1.00 crore households living in kutcha houses/dilapidated houses in three years from 2016-17 to 2018- 19. The minimum size of the house will be 25 sq.mt with a hygienic cooking space. The unit assistance is Rs. 1.20 lakh in the plains and Rs 1.30 lakh in the hilly states, difficult areas and IAP districts. **The beneficiary is entitled to 90.95 person day of unskilled labour from MGNREGS.** The assistance for the construction of toilets shall be leveraged through the convergence with SBM-G, MGNREGS or any other dedicated source of funding. The convergence for piped drinking water, electricity connection, LPG gas connection and other

different government programmes are also to be attempted.

- The cost of unit assistance is to be shared between the central and the state governments in the ratio of 60:40. The annual allocation to the states is to be based on the Annual Action Plan (AAP) approved by the empowered committee.
- **Beneficiary selection** using housing deprivation parameters in the Socio Economic and Caste Census (SECC) 2011 which is to be verified by the Gram Sabhas, to ensure that assistance is provided to those who are genuinely deprived and that the selection is objective and verifiable. To address grievances in the beneficiary-selections an appellate process has also been initiated.
- One of the major constraints in quality-house construction is the lack of a sufficient number of skilled masons. To address this, a pan-India training and certification programme of masons, National Technical Support Agency (NTSA) has been launched in the states/UTs. This, in addition, will promote career-progression of the rural masons.
- **Geo-Tagging:** For the timely construction/ completion and to ensure good quality of house construction, it has also been envisaged to tag a PMAY-G with the beneficiary with a field-level government functionary and a rural mason.
- The beneficiary is to be assisted by in-house construction with a bouquet of house design typologies inclusive of disaster resilience features that are suitable to their local geo-climatic conditions . These designs are developed through an elaborate public consultative process. This exercise will ensure that the beneficiary does not over-construct in the initial stages of house building which often results in incomplete house or the beneficiary is forced to borrow money to complete the house.
- **e-Governance models** for programme implementation and monitoring:
- *AwaasSoft* is a work –flow enabled, web-based electronic service delivery platform; from the identification of the beneficiary to providing construction linked assistance (through PFMS),

- all processes will be carried out.
- *AwaasApp* is the mobile application to monitor real time, evidence based progress of house construction through date and time stamped and geo-referenced photographs of the house.
- **Payments** to the beneficiary are to be made through the DBT to the beneficiary’s bank/post office accounts registered in *AwaasSoft* MIS.
- The states have to come up with their Annual Action Plan of PMAY-which will include a plan for convergence with other government programmes
- A willing beneficiary is to be facilitated to avail institution finance up to Rs.70,000.-which would be monitored through the SLBC and DLBC.
- Selection of beneficiaries using SECC data
- Setting up Programme management units at the state, district and block levels.
- **Mason training** (Training of semi -skilled masons to enhance their capacity to construct quality houses) under PMAY-G. A total number of 4320 masons have been trained out of the target of 12150 masons to be trained.
- Incentives to Awaas Mitra to encourage faster completion of the works
 - ❖ Rs. 1200/- if the Awaas is completed within 06 months from the sanction of concerned Awaas
 - ❖ Rs. 1000/- if the Awaas is completed within 09 months from the sanction of concerned Awaas
 - ❖ Rs. 900/- if the Awaas is completed within 11 months from the sanction of concerned Awaas
 - ❖ No payment for the Awaas completed after 11 months.

Table 4.10 : Physical Progress of PMAY-G

Fin. Year	Target	Sanction	Complete	% of Completion
2016-17	230855	230786	190660	83
2017-18	159052	159052	90272	57
2018-19	138884	137230	43877	32*
Total	528791	528088	324809	62

*till December 2018

Source: www.pmayg.nic.in (accessed on 28/12/2018)

Physical Progress in 19 Aspirational districts of Jharkhand: 2,60,863 houses have been completed out of 4,42,831 sanctioned; the completion percentage turns out to be 59%.

Pradhan Mantri Sahaj Bijli Har Ghar Yojana – ‘SAUBHAGYA’

Under Saubhagya, free electricity connections to all the households (both APL and poor families) in the rural areas and poor families in the urban areas will be provided. Rural Electrification Corporation (REC) has been designated as the nodal agency for the Saubhagya scheme.

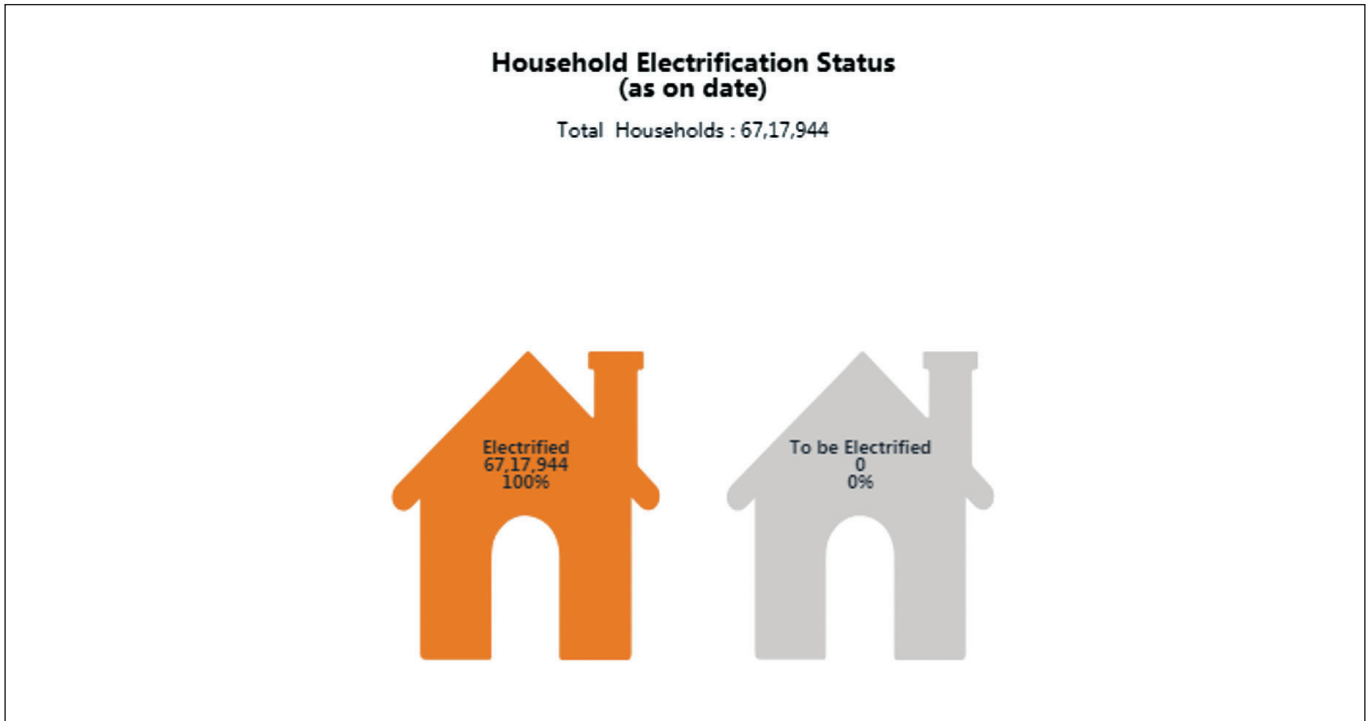
Under the scheme, DISCOMs will organize camps in villages/cluster of villages to facilitate on-the-spot filling up of application forms and the release of electricity connections to households.

Scope of the Scheme:

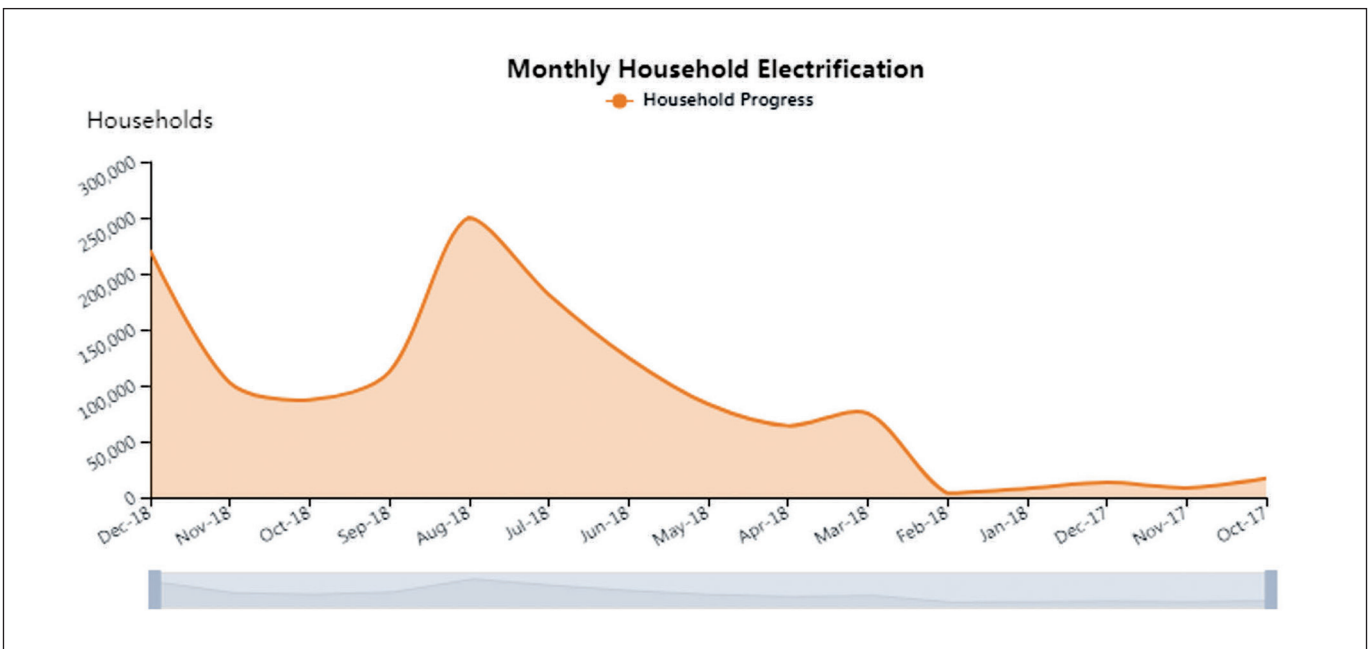
Providing last mile connectivity and electricity connections to all un-electrified households in the rural areas.

Providing Solar Photovoltaic (SPV) based standalone system for un-electrified households located in the remote and inaccessible villages / habitations where grid extension is not feasible or cost effective.

Jharkhand has achieved 100% electrification as on December 2018 under the scheme.



Source: www.saubhgya.gov.in



Source: www.saubhgya.gov.in

Shyama Prasad Mukherjee Rurban Mission

This aims to deliver integrated project-based infrastructure in the rural areas, which will also include the development of economic activities and skill development. The preferred mode of delivery is through Public Private Partnerships (PPPs) while using various scheme-funds for financing.

About the Mission:

- The Union Cabinet of India, has approved the Shyama Prasad Mukherji Rurban Mission (SPMRM)/National Rurban Mission (NRuM) on 16th September 2015.
- **Vision:** – *“Development of a cluster of villages that preserve and nurture the essence*

of rural community life with focus on equity and inclusiveness without compromising on the facilities perceived to be essentially urban in nature, thus creating a cluster of “Rurban Villages”.

Major achievements of the Mission:

- Jharkhand has a total of 15 RURBAN clusters, out of which 6 are non-tribal and 9 are tribal clusters. Under the 15 Rurban cluster, in 53 Gram Panchayats, all-round developmental work has been taken up.
- For Rurban Clusters, the ratio of Convergence and Critical Gap Funds (CGF) to schemes is 70:30. Under CGF, a maximum of 30 million for non-tribal and maximum of 15 million rupees are prescribed for the tribal areas.
- In 15 clusters, projects of Rs.308.74 crores under CGF and of Rs.1006.53 crores under convergence are being implemented.
- Under the Rurban Mission, the budget of Rs. 124.19 crores has been spent through convergence and CGF.

Progress of various Aadarsh Gram Yojanas

MP Aadarsh Gram Yojana

Fifty-three village panchayats have been selected by the honourable MPs of the state in three phases. Under this scheme, 4151 projects have been sanctioned so far, out of which 1482 projects are under progress. 705 schemes are in the final stages of completion.

Prime Minister Aadarsh Gram Yojana

A provision of Rs. 4100 lakhs has been made for a selected 100 Scheduled Caste dominated villages, under which the DPRS (Detailed Project Report) of 1186 schemes have been prepared for Rs. 3214 lakhs.

Aadarsh Gram Yojana

Under this scheme, one hundred villages of the birth place of the honourable MLAs and *Prakhar Kranti Dutton* have been allocated Rs. 3998 lakhs. In 73 villages - Village Cultural Centres have been set up in 79 villages - and in 29 villages - the work of pipeline water supply has been completed. All the 100 villages have been provided with an ambulance each, to be operated by the Aadarsh Gram Samiti.

Chief Minister Aadarsh Gram Yojana

This scheme has been started with the goal of rural development based on technology, accessibility and innovation, under which five Gram Panchayats have been selected. Smart Village Development Scheme has been prepared for selected Smart Gram Panchayats - Kantasol (East Singhbhum), Chenaro (Hundarbagh, Bundu (Bokaro) and Shivraipur (Gumla). The department has sanctioned Rs.87.50 lakhs for the Kantasol Gram Panchayat, out of which 8.85 lakhs have been allocated.

JOHAR

JOHAR is a world bank aided livelihood strengthening, advancement and enhancement project with the primary objective of doubling the real income of rural households of approximately. 2,00,800 households in a period of six years. The project focuses on sectoral intervention such as High Value Agriculture (HVA), Irrigation, Livestock, Fishery and Non Timber Forest Produce (NTFP).

First Lift irrigation scheme inaugurated under the JOHAR Project at Sarubera village of Gumla district- this scheme covers 18.13 acres and will benefit 30 farmers.

The project aims at rural economic development through livelihood and enterprise-promotion, value-chain interventions, institution-building and capacity-enhancement of rural producer-households. The SHG members under the National rural Livelihood Mission (NRLM) are being aggregated into producer groups in the villages. These groups will be further federated at the block and district level to have a negotiable market volume for the inputs and outputs. The districts and blocks have been selected and finalized, and the project has entered into its second year of implementation from July 2018. The beneficiary selection and village selection have been chalked out to have market surplus production in the cluster. In the second year, the project has entered 17 districts and 45 blocks covering approximately 1,00,000 rural households through the Producer Group fold. Approximately 2000 producer- groups have been formed with an average of 50 members in each producer group and they have

done planning and are engaged in production under the various sectors.

Progress as on Dec, 2018 under the project:

HVA:

- Approximately 50,000 HHs has been covered
- 20,000 HHs were involved in Kharif crop-planning and production

Irrigation: 350 DPRs for micro irrigation have been approved and community installation is being done

Livestock:

- Approximately 10,000 HHs have been covered under Livestock
- Currently 13 Breeder Villages have been formed
- 8 Livestock Service Centres are functional
- 100% Deworming and Vaccination of all animals are done in all the PGs

Fishery:

- Approximately 4000 HHs have been covered
- Riverine Fish Farming (RFF) construction has started
- 2 aqua Support Centres have been established

NTFP:

- Approximately 2700 HHs have been covered under lac cultivation
- Other activities include moringa, chironji, lemon grass and tamarind cultivation.

Under the JOHAR project of JSLPS, the farmers were supported with 639 kg brood Lac and equipment like rocking sprayers and medicines. For the first time in Masaliya block of Dumka district, Jharkhand, Lac (Rangeeni) cultivation has been successfully done. About 213 farmers cultivated lac on an average of about 5 to 6 Palash trees per farmer.

The state has made rapid progress in *Horticulture* with around 4.27 lakh hectares for vegetables and fruits (out of the net sown area of 23.62 lakh hectares) and an all-India ranking within 10 for several vegetable crops. Livestock too is a high-value option for the landless households. Market prices for meat and eggs have increased by 70–100 per cent in the past decade

in the local markets and have also pushed up farm gate prices. The state has maintained a high growth rate of 17.23 per cent in fish production over the past 11 years, despite limitations such as dependence on seasonal water bodies and recurrent droughts, and it contributes to 60 per cent of the country's production in non-timber forest products.

One of the potential resources in Jharkhand are fishes. JOHAR project is focusing on the *Pisciculture* Fishery Development with precision. The primary focus is the utilisation of the vast opportunities lying untapped in the fields of fish-rearing, seed-rearing, seed-production, cage-culture and pen-culture. Currently, interested beneficiaries of NRLM SHGs are organizing themselves into PGs, i.e., producer groups and are working collectively in the field. Firstly, they are provided with formal training on the project, the process of execution, their share of participation and the basics of fish rearing. The fish-rearing can be undertaken in the beneficiary's personal land or a community pond collectively or in a dobha individually. It is important to note that the water source should have its water holding capacity or seasonality for at least upto 3-10 months and should be managed scientifically (i.e., cleaning, manuring, liming and regular monitoring of different water parameters) in order to check for mortality/disease in the fish and keep it under control so as to avail maximum profit. The PG members are advised to add lime and cowdung to the pond which helps in balancing the alkalinity and promote the growth of natural food of fish. The PGs are then provided with stocking fingerlings which are then taken care of and reared by them. The PGs are assisted by Matsya Mitra who help them in organizing PGs in the block, identification of the beneficiaries, training, monitoring, harvesting and marketing in order to obtain the best price for the stock.

Therefore under JOHAR, the rural household will do synchronized farming under the umbrella of producer groups and collective marketing of the produce. Thus, JOHAR will do end-to-end line activities from input-production, value chains, marketing through rural business hubs and producer organizations and producer companies.

Rural Work Affairs

State Sponsored Schemes

Objective: The main objective of State Sponsored

Schemes is to provide road connectivity to the rural people. The budgets are provided to construct and maintain rural roads and bridges on priority basis.

Table 4.11 : State Sponsored Schemes

Budgetary Provision:	1500 Cr.
Total number of ongoing schemes as on 01.04.2018:	1148
Total length of ongoing schemes as on 01.04.2018:	3383.57 Km
Total liabilities of ongoing schemes as on 01.04.2018:	2100 Cr.
Number of sanctioned schemes in the year 2018-19 till date:	497
Length of the sanctioned schemes in the year 2018-19 till date:	1244 Km
Amount sanctioned for the total no. of schemes in the year 2018-19 till date:	891 Cr.
Physical Target for the year 2018-19:	2000 Km
Total number of schemes/ length completed in the year 2018-19:	538/1442.74 Km

Pradhan Mantri Gram Sadak Yojana (PMGSY)

It is a centrally sponsored scheme. PMGSY provides all weather roads, with major and minor bridges, and connectivity to eligible habitation in the rural areas.

Table 4.12 : Pradhan Mantri Gram Sadak Yojana

Budgetary Provision:	1500 Cr.
Total number of ongoing schemes as on 01.04.2018:	2352
Total length of ongoing schemes as on 01.04.2018:	5503 Km.
Total liabilities of ongoing schemes as on 01.04.2018:	3304.83 Cr.
Number of sanctioned schemes in the year 2018-19 till date:	331
Length of sanctioned schemes in the year 2018-19 till date:	341.91 Km.

Amount sanctioned for total no. of schemes in the year 2018-19 till date:	737.41 Cr.
Physical Target for the year 2018-19:	5000 Km.
Total number of schemes/ length completed in the year 2018-19:	63/202 Km.

Mukhya Mantri Gram Setu Yojana

Mukhya Mantri Gram Setu Yojana had been started in the year 2001 for the connectivity of the rural masses. Under this scheme bridges are built along rural roads by the Rural Works Department. Normally bridges having length of more than 20 m are taken up.

The scheme has proved to be very successful. The department has already constructed and completed 1619 nos. of bridges since the inception of this popular scheme.

Table 4.13 : Details for the current Financial year 2018-19

Budgetary Allocation	Rs. 592.93 cr.
Nos. of pending schemes as on 01.04.2018	243
Allotment release in the F.Y 2018-19	Rs. 314.34 cr.
Total expenditure accrued in the F.Y 2018-19	Rs. 241.06 cr.
No. of completed schemes in the F.Y 2018-19	67
No. of sanctioned schemes in the F.Y 2018-19	71
Total amount of sanctioned schemes in the F.Y 2018-19	Rs. 415.86 cr.
Total no. of ongoing schemes in the F.Y 2018-19	198

Swachh Bharat Mission - Gramin (SBM-G)

In order to make the panchayat ODF, village organizations / SHGs (Sakhi Mandal) formed under NRLM through the JSLPS are involved in the construction of toilets, where state and district teams are engaged in

monitoring and ensuring the quality of construction. They also have established close coordination with the Drinking Water and Sanitation Department for the proper planning and coordination with the districts. As on the 30th of september 2018 a total number of 2,75,000 IHHL (toilets) have been constructed by the community institutions.

Village Organisations and SHGs discuss the uses

of toilets and positive behaviour in their monthly meetings to ensure the sustainable use of toilets. They also organize campaigns to make people aware about the benefits of using toilets for their health, income, security, dignity and livelihood.

Rani Mistri are the women masons and they have found new identity and work due to toilet-constructions under the SBM.

With 4,396 Gram Panchayats ODF, the coverage of toilets has reached 100% in Jharkhand.



Source: www.sbm.gov.in

A new scheme under the SBM is launched in Jharkhand. “*Swachh Jaldhara*” is a scheme under which the direct water supply will be made available through deep boring to the households where toilets are being constructed.

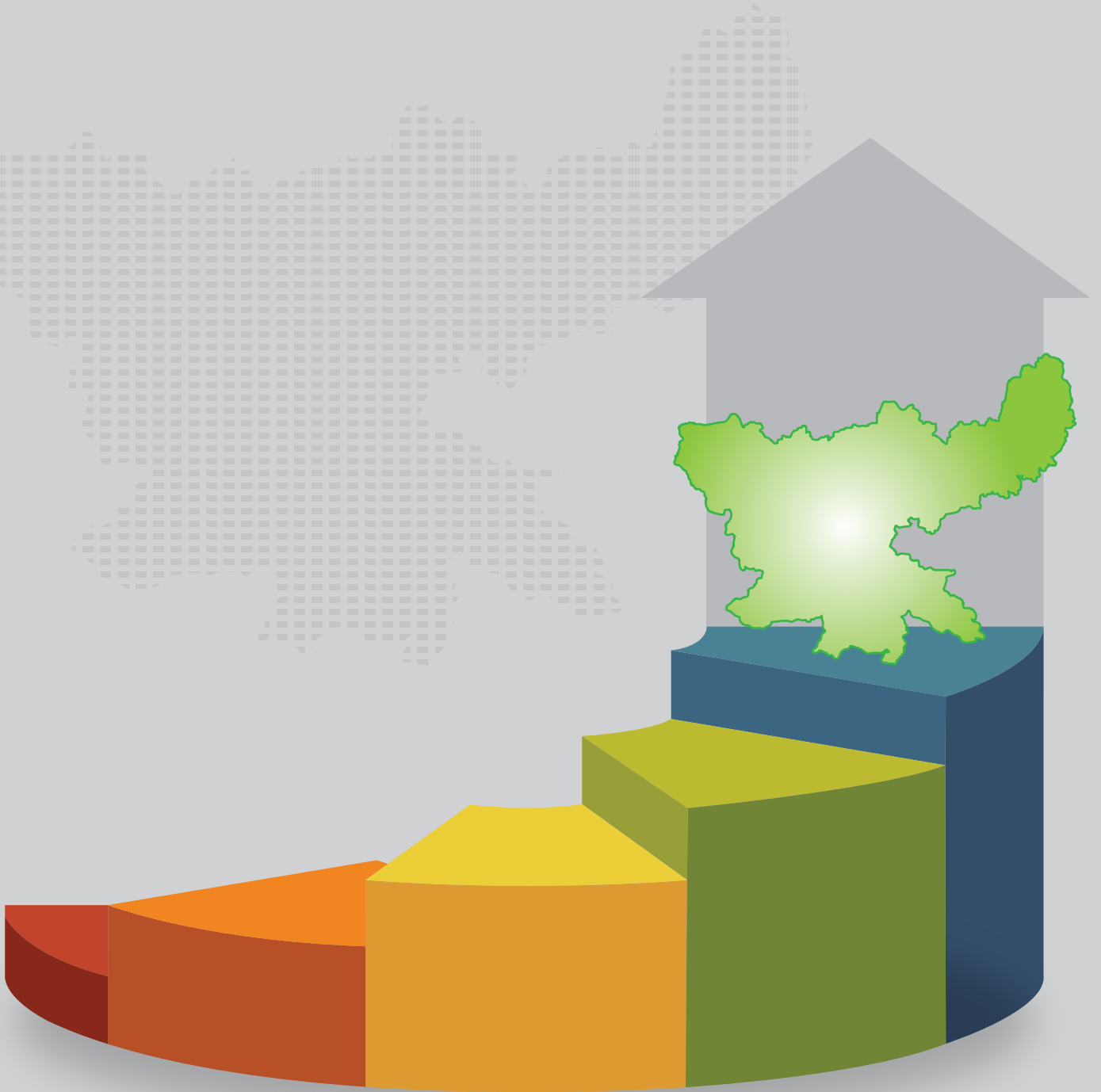
Conclusion

Recent developments in governance in terms of transparency, accessibility and accountability provided by e-services and social audits have further helped the department get closer to its goal of poverty-alleviation. The department of rural development under its various schemes and programmes is working towards the upgradation of the rural populace of the state. With increased community-participation in the developmental

process the quality of work has improved along with a higher level of awareness among the rural people about their rights under the various schemes. The lives and livelihood of the rural people have improved in various developmental indicators. Most importantly, with the commitment to the deepening and strengthening of democracy at the grassroots level, the department of rural development has expanded the idea of social audits, strengthened Gram Panchayats, partnered more closely with Civil Society Organisations and Community Based Organisations and is engaged with workers’ organizations working for workers’ rights. This has ensured that policy-design and implementation issues are regularly monitored by the department and can be corrected immediately.

V

URBAN DEVELOPMENT



Introduction

The development of the cities and towns has a strong spread effect. It creates opportunities of income and employment not only for the people living there but also for the people living in the surrounding areas. It creates demand for the resources and products of the rural hinterland and in turn promotes economic activities also by supplying knowledge, technology and funds (through remittances). Due to the large scale economies, many of the bigger modern institutions like super-speciality hospitals, universities, and recreational facilities are mostly located in the urban areas but they cater to the needs of the people living in their periphery also.

Realising this importance the government of Jharkhand has successfully taken several steps for the development of the urban areas of the state.

Jharkhand is less urbanised than the country on the whole. As per the 2011 census, 24.05 per cent of its population live in the urban areas while at the national level 31 per cent of the population live in such areas. Of the total urban population of Jharkhand, more than half of it live in its 10 class I cities. Altogether it has 228 urban regions-12 of them are class II towns, 39 are class III towns, 48 are class IV towns, 90 are class V towns and 29 are class VI towns.

Table 5.1: Types of Urban Centres and Share of Urban Population in Jharkhand

Size class of Towns		Number	The share of the Urban Population (in %)
Class I	(1,00,000 & above)	10	54.6
Class II	(50, 000-99,999)	12	11.1
Class III	(20,000-49,999)	39	16.2
Class IV	(10,000-19,999)	48	8.5
Class V	(5,000-9,999)	90	8.0
class VI	(Less than,5000)	29	1.7
All Classes		228	100

Source: Computed from the Town Directory, Jharkhand, Census of India 2011

Jharkhand, though less urbanised than the national average/ level, is urbanising faster than the country on the whole. Between 2001 and 2011 the urban population of Jharkhand grew by 37.31 per cent while that of the whole country grew by 31.8 per cent. The total urban population of Jharkhand was about 80 lakh in 2011, about 22 lakh more than in 2001. The decadal growth in the urban population is much higher in the

class I cities than in the other five type urban centres. While the population of the Class I cities grew by about 59 per cent, that of class V towns grew by only 15 per cent and that of class VI towns by 2 per cent between 2001 and 2011. The development of the infrastructure of class I cities, therefore, is of utmost importance for accommodating its ever-growing population.

Table 5.2: Distribution of the Urban Population in Jharkhand by Town Size in 2001 and 2011

Size of Class Town	Census 2001	Census 2011	Population Change	Growth Rate
Class I	2720477	4328014	1607537	59.09
Class II	782342	882716	100374	12.83
Class III	1047148	1302052	254904	24.34
Class IV	560966	674280	113314	20.20
Class V	551952	634552	82600	14.96
class VI	128859	131546	2687	2.09
All Classes	5791744	7953160	2161416	37.32

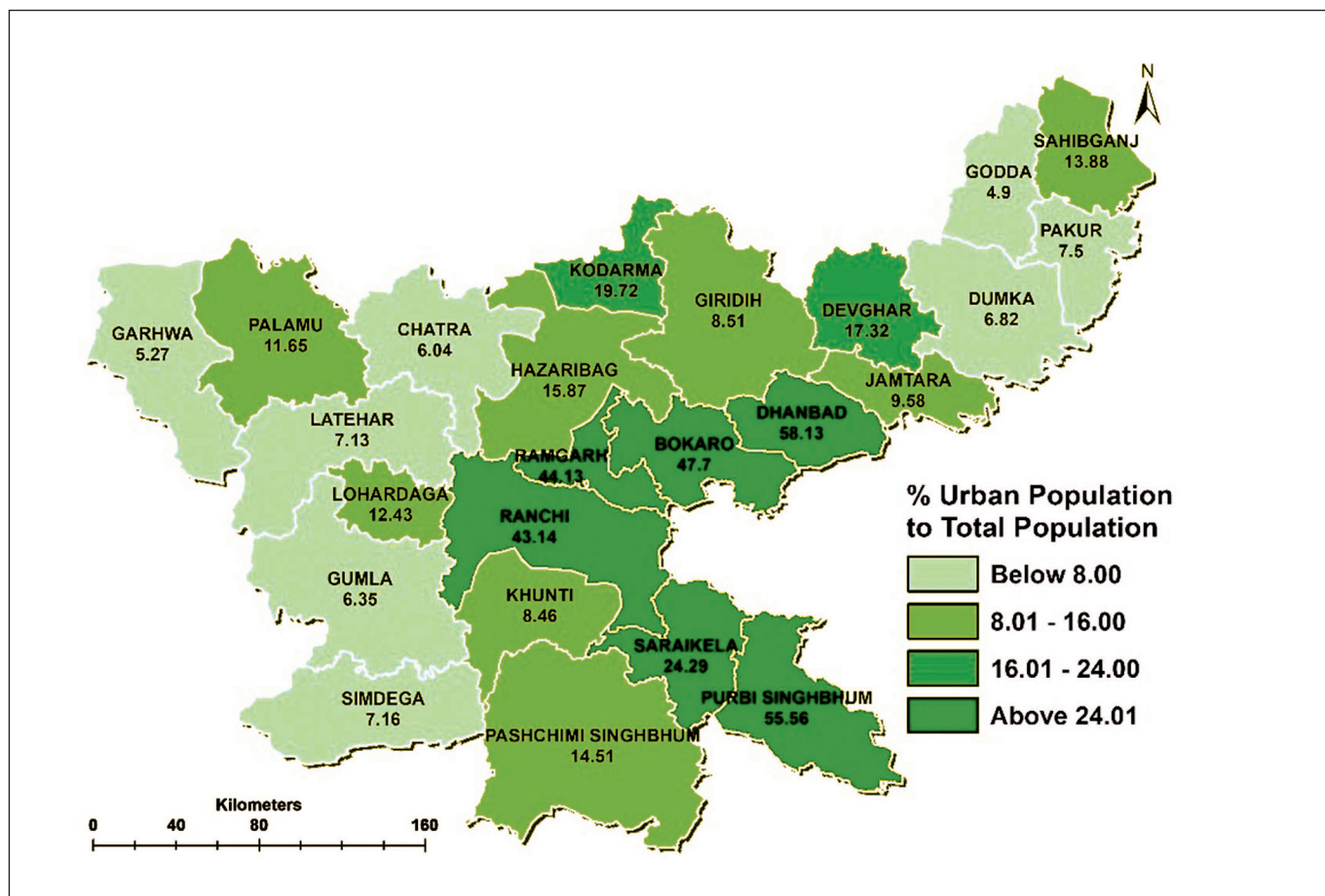
Source: Computed from the Town Directory, Jharkhand, Census of India 2011

Spatial Distribution of the Urban Population in Jharkhand

There is district-wise variation in the levels of urbanization in Jharkhand. It ranges from about 58 per cent in Dhanbad to 5 per cent in Godda. The five highly urbanised districts which are more urbanised than the national average are Dhanbad (58.13 per cent), Purbi Singhbhum (55.56 per cent), Bokaro (47.70 per cent), Ramgarh (44.13 per cent) and Ranchi (43.14 per cent). They along with Saraikela-Kharsawan form a continuous belt of urban concentration in Jharkhand

forming a crescent starting from the east to the south east. In stark contrast are the districts located in the north - east and north - west which have extremely low levels of urbanisation. The districts of Godda (4.90 per cent), Dumka (6.82 per cent) and Pakur (7.50 per cent) in the Santhal Parganas region, located in the north-east of the state and Garhwa (5.27 per cent), Chatra (6.04 per cent) and Latehar (7.13 per cent) located in the north-western part and Gumla (6.35 per cent), and Simdega (7.16 per cent) in the south-western part of the state are the least urbanised districts of the state.

Map: 5.1 District-wise levels of urbanization in Jharkhand, 2011



Source: The Primary Census Abstract, Jharkhand, Census of India, 2011

Living Conditions in the Urban Areas

The living status of the urban population of the state is almost similar to that of the national average. According to the Socio-economic Caste Census 2011, about 0.14 per cent of the urban population of Jharkhand are homeless, 0.07 per cent live in shelters and 0.42 live in institutions. The remaining 99.45 per cent of the urban population of Jharkhand lives in normal haves. The total number of homeless people in the state is about

7 thousand. About 64 per cent of them live in Bokaro from which about 22 per cent live in institutions and 26 per cent of them live in shelters.

The living status of the urban population at the all-India level, as mentioned above, is almost similar. At the all-India level about 0.10 per cent of the urban population is homeless, 0.12 per cent live in shelters, 0.47 live in institution and the remaining 99.42 per cent have a normal living status.

Table 5.3: Distribution of the Living Status of the Urban Population of India and Jharkhand

State/UT Code - Name	All India in Percent	Jharkhand in Percent	Number in Jharkhand
Normal	99.42	99.45	5231718
Institutional	0.47	0.42	21836
Homeless	0.10	0.14	7132
Shelter	0.12	0.07	3751

Source: Socio economic Caste Census 2011

People living in Slums

In comparison to the rest of the country, a very small percentage of the urban population of the state lives in slums¹. While about 13 per cent of the urban population

of the country live in slums, in Jharkhand only about 1 per cent of the population live in such areas (SECC, 2011). The slum-population of the state constitutes only about 0.14 per cent of the total slum population of the country.

Table 5.4: People living in Slums in the Urban areas of India and Jharkhand

	All India		Jharkhand	
	Number	Per cent	Number	Per cent
Slum Population	39851760	13.28	55994	1.06

Source: Socioeconomic Caste Census 2011

The slum population is usually concentrated in the industrial and commercial centres of the state. About 72 per cent of the slum population of the state live in class I cities. 47 per cent of the slum population of the state live in Dhanbad alone.

Illiteracy is higher among the inhabitants of the slums than in the rest of the urban areas of the state. About 35 per cent of the slum population of urban Jharkhand was illiterate. It is higher in the smaller towns than the bigger cities. While about 34 per cent of the slum population of class I city was illiterate, about 41 per cent of those in class III and IV were illiterate. About

68 per cent slum population in Jharkhand was non – working. The per cent of the non-working population was the highest in class I cities (69%), and it was the lowest in class IV cities (65%). Out of a total working population in the slum areas of Jharkhand, 82 per cent were main workers and remaining 18 per cent were marginal workers. In the case of class I cities, 84 per cent slum population was main workers while 16 per cent was marginal workers. The percentage of marginal workers was the highest in the class IV towns in the state. That was 31 per cent.

¹ As per UN Habitat, characteristics of the slum are lack of durable housing, insufficient living area, lack of access to clean water, inadequate sanitation and insecure tenure. All areas in a town or city notified as ‘Slum’ by States, union territories administration or local government under any Act including a ‘Slum Act’ may be considered as notified slums.

The Census of India, 2011, defined slums as (i) All areas recognised as ‘Slum’ by the State, Union territories Administration or Local Government, Housing and Slum Boards, which may have not been formally notified as slum under any act (ii) A compact area of at least 300 people or about 60-70 households of poorly built congested tenements, in an unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities. Such areas should be identified personally by the Charge Officer and also inspected by an officer nominated by Directorate of Census Operations. This fact must be duly recorded in the charge register. Such areas may be considered as identified slums.

Table 5.5: Distribution of the Slum Population in Jharkhand (in %)

Class Towns	The share of Slum Population	Illiterate	Non-Working Population	Working population	Main Workers	Marginal Workers
I	72	34	69	31	84	16
II	10	35	68	32	77	23
III	14	41	67	33	72	28
IV	2	41	65	35	69	31
V	2	36	67	33	84	16
Jharkhand	100	35	68	32	82	18

Source: Computed from the Town Directory, Jharkhand, Census of India 2011

Status of earning population

The percentage of wage earner in Jharkhand is less than that at the all India level. While about 35 per cent of the people of the country are wage earners, in Jharkhand only 30 per cent of the people are wage

earners. However, there is not much difference between the country and the state in the mode of wage payment. Most of the wage earners earn wages either daily or once a month. More than half of the wage earners, both in the country and the state earn wage once a month and more than one fourth get wages daily.

Table 5.6: Periodicity of Wage earners among the Urban Population of India and Jharkhand

Mode of wage earned	All India		Jharkhand		
	Percentage	Percentage of wage earners	Number	Percentage	Percentage of wage earners
Daily	9.54	27.42	475797	9.04	30.90
Weekly	2.31	6.65	103464	1.97	6.72
Monthly	19.18	55.12	829794	15.77	53.88
Irregularly	3.76	10.18	130977	2.49	8.50
Not a wage Earner	65.17		3720315	70.72	

Source: The Socio-economic Caste Census 2011

About 58 per cent of the people of urban areas of India and about 66 per cent the people of the urban areas of Jharkhand do not earn income from any source. The main source of income in the urban areas of Jharkhand is other work (19.42) followed by the construction work (5.5 per cent), non-work (4.5 per cent) and transport (1.4 per cent). In comparison to the country on the whole, for

a higher percentage of the people of Jharkhand, begging, rag picking, street-vending and sanitation work are the main sources of earning and for a smaller percentage of them domestic, construction, home-based, transport, shop assistant, washerman, other worker and non-work are the main source of earning.

Table 5.7: Distribution of Urban Population of Jharkhand by Main Source of Income

Main Source of Income	All India	Jharkhand
Beggars	0.05	0.19
Rag Pickers	0.03	0.28
Domestic Workers	2.07	1.31
Street Vendors	0.65	0.74
Construction Workers	6.31	5.52

Main Source of Income	All India	Jharkhand
Sanitation Workers	0.43	0.45
Home Based Workers	2.26	1.12
Transport Workers	1.60	1.48
Shop Worker/Assistants	2.49	1.99
Electricians/Mechanics/Assemblers	0.83	0.89
Washer Men	0.31	0.30
Other Workers	19.42	14.99
Non-Work (Pension/Rent/Interest, etc.)	5.90	4.59
No Income from Any Source	57.65	66.14

Source: The Socio-Economic Caste Census 2011

The percentage of literates in the urban areas of Jharkhand is almost equal to that of the country on the whole but while most of the literate in Jharkhand are educated up to the middle school those of the country are educated beyond the middle school. While about 13 percentage of the urban population of the country are graduates and above, in Jharkhand, the percentage of such people is about 11 per cent.

Table 5.8: Urban Population in Jharkhand according to the Level of Education (in %)

Educational status	All India	Jharkhand
Illiterates	17.85	16.98
Literates But Below Primary	9.35	9.69
Primary education	16.13	16.81

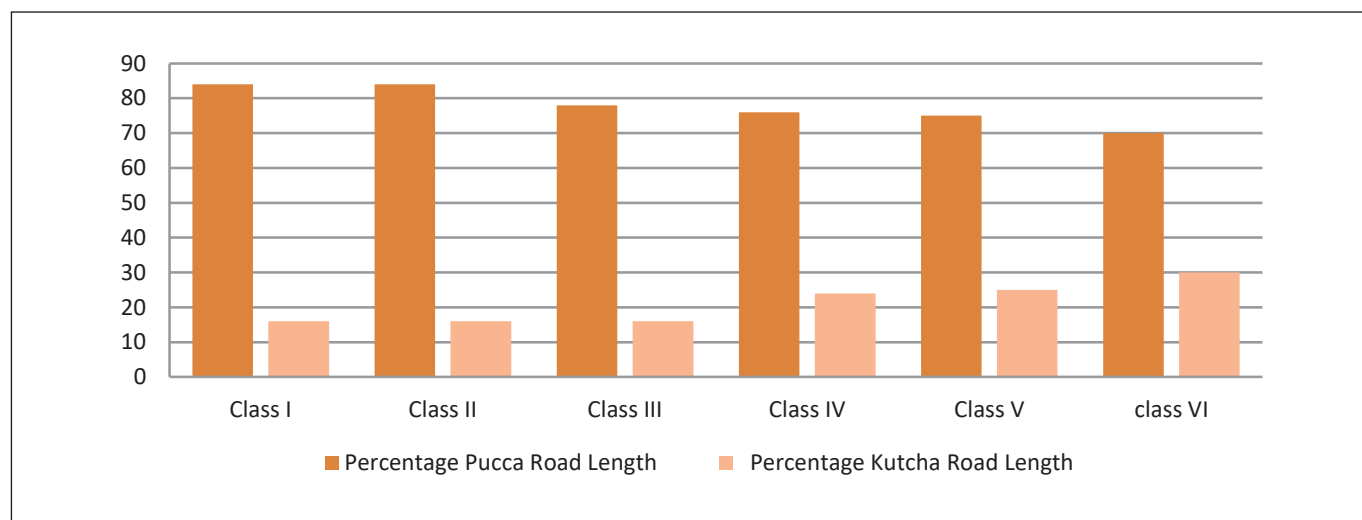
Educational status	All India	Jharkhand
Middle school	15.86	18.04
Secondary school	15.42	15.05
Higher Secondary education	10.48	10.92
Graduate Or Higher education	13.06	10.84
Other (Specify)	1.85	1.66

Source: The Socio economic Caste Census 2011

Infrastructure and Amenities

Road: The total road-length in the urban areas of Jharkhand, as per the 2011 census, is about 48 thousand kilometres, about 81 per cent of which is pucca and 19 per cent is kuchha. A large percentage of the roads of class I and II cities are pucca which is more than those in the smaller towns.

Figure 5.1: The Percentage-distribution of Road Lengths across the Cities and Towns of Jharkhand



Source: Computed from the Town Directory, Jharkhand, Census of India 2011

Electricity, Drinking Water, Sanitation, Fuel & Health

The fourth round of family health –survey at the national level, conducted in 2015-16 shows that around 96.7 per cent of the urban households had electricity connections while during the census of 2011 this figure was 86 per cent. Thus, within four years, more than 10 per cent urban households had got electricity connections. This is a remarkable achievement. It lags behind the national average by only 0.7 per cent in this respect.

The households availing an improved drinking-water

source in the urban areas of Jharkhand were 88.6 per cent while at the national level it was 91.1. The households using improved sanitation facilities in urban Jharkhand were 59 per cent - about 11 percentage points lesser than the national average. In 2015-16, 55.4 per cent people of urban Jharkhand were using clean fuel while 80.6 per cent people in the urban areas of India were doing so. Households with any member covered by a health scheme or health insurance in urban Jharkhand were 13.7 per cent while the national figure was 28.2 per cent.

Table 5.9: Distribution of the Urban Amenities and Facilities in Jharkhand

NFHS 4	Jharkhand	India
Households with electricity	96.7	97.5
Households with an improved drinking-water source	88.6	91.1
Households using improved sanitation facility	59	70
Households using clean fuel for cooking	55.4	80.6
Households with any usual member covered by a health scheme or health insurance	13.7	28.2

Source: National Family Health Survey 4, 2015-2016, Ministry of Health and Family Welfare, Government of India

Initiatives and Programmes for Urban Development

- Ranchi Smart City

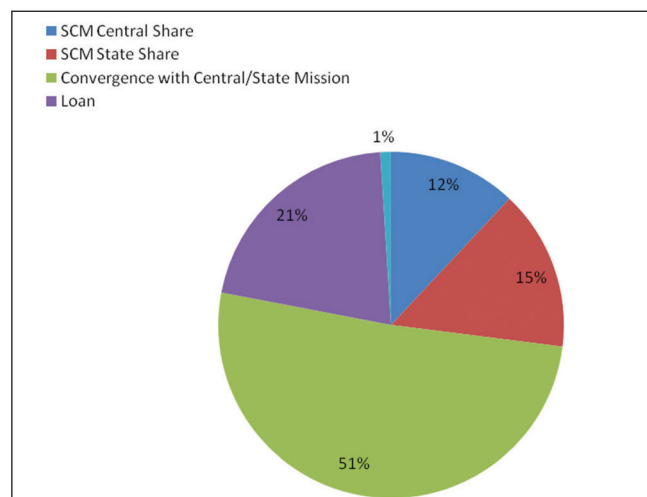
The objective of the Smart Cities Mission is to promote the cities that provide core-infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of ‘Smart Solutions’. The focus is on sustainable and inclusive development, and the idea is to look at compact areas, create a replicable model which will act as a lighthouse to other aspiring cities. The application of ‘Smart Solutions’ will enable the cities to use technology, information and data to improve the infrastructure and services. Comprehensive development, in this way, will improve the quality of life, generate employment and enhance income for all, especially for the poor and the disadvantaged, leading to inclusive cities. It also focuses on the development of the slum areas.

Ranchi is one of the 100 smart cities under the Smart Cities Mission of the government of India. The development of Ranchi smart city is going on through two major components – Area Based Development and Pan City development projects. The Area Based Development covers 24 per cent of the total developmental work whereas the Pan City developmental projects cover 76 per cent. The total cost of this project is Rs 4027.57 crores.

Table 5.10: Total Costs INR Crore

Sl. No.	Head	Development Cost (In crores)
1	Total Area Based	955.90
2	Total Pan City	3,071.67
Total Cost		4,027.57

Figure 5.2: Sources of Funds for the Smart City Ranchi



Source: Smart City Mission Dashboard, SMARTNET, The Ministry of Housing and Urban Affairs, Government of India

Table 5.11: Financial Time Line of the Smart City Ranchi

Year	Components	Target
Year 1 (2016-17)	Setting up of SPV, onboarding of Integrators for Area-based and Pan city based proposals. Bid process management for all projects identified in the areas and pan-city to be completed and contractors identified	Financial closure of projects, approval for grants under various convergence schemes. No expenditure incurred during this period.
Year 2 2017-2018	Land development, Transport and circulation, Water supply and reuse of recycled water, wastewater management, stormwater drainage, power supply, safety and security, IPT integration, fare management system, command & control centre projects DPR and associated work completed during this period. Convention Centre, Urban Civic Tower and JUPMI work started and under progress.	Receipt of grants as applicable No expenditure incurred during this period
Year 3 2018-19	Convention centre, JUPMI, Urban Civic Tower. Work under progress. Land development, Transport and circulation, Water supply and reuse of recycled water, wastewater management, stormwater drainage, power supply, safety and security, IPT integration, fare management system, command and control centre. 220/33kV GIS Sub Station and Associated transmission line projects DPR technically and administratively sanctioned and NIT floated.	10% of the total expenditure to be incurred.
Year 4 2019-20	Convention centre, JUPMI, Urban Civic Tower to be completed. Land development, Transport and circulation, Water supply and reuse of recycled water, wastewater management, stormwater drainage, power supply, safety and security, IPT integration, fare management system, command and control centre. 220/33kV GIS Sub Station and Associated transmission line projects under progress. Transit Hub, SAAC, Student resource centre, public facility centres, other social infrastructure, intelligent public transport system, corridor and parking management system will be under progress. Completion of all open spaces and parks, riverfront development	30% of the total expenditure to be incurred.

Year	Components	Target
Year 5 2020-21	<p>Land development, Transport and circulation, Water supply and reuse of recycled water, wastewater management, stormwater drainage, power supply, safety and security, IPT integration, fare management system, command and control centre. 220/33kV GIS Sub Station and Associated transmission line projects will be completed.</p> <p>Transit Hub, SAAC, Student resource centre, public facility centres, other social infrastructure, intelligent public transport system, corridor and parking management system will be completed.</p> <p>Land monetisation to be completed.</p>	60% of the total expenditure to be incurred.

Source: INDIA SMART CITY MISSION: Ministry of Housing and Urban Affairs, Government of India

Apart from it, Jharkhand has been implementing centrally sponsored schemes namely AMRUT, DAY-NULM, Swachh Bharat Mission, Namami Gange and Pradhan Mantri Awas Yojana etc. In this regard; the state government has been providing adequate budgetary support apart from the central grant to the effective implementation of these schemes. The details of the aforesaid centrally sponsored schemes are as given below:

Atal Mission for Rejuvenation & Urban Transformation (AMRUT)

The AMRUT mission is targeting five core areas of the urban facility (i.e. water supply, sewerage/seepage, stormwater drainage, urban transport and greenspaces) that strengthen the urban living experience. The state has been providing these core facilities in the selected seven cities of the state (i.e. Ranchi, Dhanbad, Adityapur, Deoghar, Hazaribagh, Chas and Giridih) under the AMRUT scheme². According to the service level improvement plan (SLIP) of these cities, Jharkhand has prepared the State Annual Action Plan (SAAP) of amount Rs. 1245.74 crore. **772.14 Crore**, sewerage/septage projects Rs. **444.60 Crore** and Parks/ green space projects is of Rs **29.00 crores**.

The state has given equal emphasis on the reform-side of the scheme that will ensure self-sustenance of the Urban Local Bodies in the long term. The central government has recognized the effort of the state in the

FY **2015-16, 2016-17 and 2017-18**. It is noteworthy that in the FY 2016-17, the state secured the 3rd place in all India ranking in this regard. The state has completed the following selected reform milestones i.e. birth, death/ marriage registration, water charges, property tax, issuance of license, building permission, adoption of modern building byelaw-2016, cadre linked training, energy efficiency, credit rating of ULBs, waste water recycling & faecal Sludge management policy, implementation of accrual based double entry accounting system, internal audit of ULBs, every year updation of the annual financial Statement of the ULBs, development of park/green space in the AMRUT Cities etc.

The state has not only implemented the reforms in the AMRUT cities only but has percolated the system to the other smaller towns for building a strong base for the future. The online Building Permission system, i.e. Building Plan Approval Management System is active, and it has been implemented in the 44 ULB and in the 2 UDAs of Jharkhand. Under energy efficiency, a total number of 101049 street lights have been replaced in the entire state against a target of 68685 that would have covered only the AMRUT cities. The credit rating has been done for all the cities of the state where Ranchi earned a BBB- rating that is worthy for floating Municipal Bonds. The state has also taken forward-moving steps concerning developing energy-efficient

² In other cities that has not been covered under AMRUT scheme state is investing on its own or getting fund from other sources.

cities. It has already identified 82 old inefficient pump sets that will be replaced by energy efficient pump sets.

Providing basic services (e.g. water supply, sewerage, urban transport) to households and building amenities in cities which will improve the quality of life for all, especially the poor and the disadvantaged is a national priority. An estimate of the funds required over 20 years, (at 2009-10 prices) was made by the High Powered Expert Committee (HPEC) during 2011. The Committee estimated that Rs. 39.2 lakh crores are required for the creation of urban infrastructure, including Rs. 17.3 lakh crores for the urban roads and Rs. 8 lakh crores for services, such as water supply, sewerage, solid waste management and stormwater drains. Moreover, the requirement for Operation and Maintenance (O&M) has been separately estimated to be Rs. 19.9 lakh crores.

Therefore, the purpose of Atal Mission for the Rejuvenation and Urban Transformation (AMRUT) is to (i) ensure that every household has access to a tap which assures supply of water and a sewerage connection; (ii) increase the amenity-value of cities by developing greenery and well maintained open spaces (e.g. parks); and (iii) reduce pollution by switching

to public transport or constructing facilities for non-motorized transport (e.g. walking and cycling). Citizens, particularly for women all these outcome-indicators and standards have been prescribed by the Ministry of Urban Development (MoUD) in the form of Service Level Benchmarks (SLBs).

Coverage

Five hundred cities will be taken up under the AMRUT. The list of cities will be notified at an appropriate time. The category of cities that will be covered in the AMRUT is given below:

- All cities and towns with a population of over one lakh with notified municipalities, including cantonment boards (Civilian areas),
- All capital cities/towns of states/ UTs, not covered in 2.1(i),
- All cities/ towns classified as Heritage Cities by MoUD under the HRIDAY Scheme,
- Thirteen Cities and Towns on the banks of the main rivers with a population above 75,000 and less than 1 lakh, and
- Ten cities from the hill states, islands and tourist destinations (not more than one from each state)

Table 5.12: Sector-Wise Break Up of Consolidated Investments for All AMRUT ULBs in the State of Jharkhand for the Mission Period 2015-16 to 2019-20.

Name of City	Water Supply	Sewerage / Septage	Drainage	Urban Transport	Green Spaces and Park	Total Amount
						(In Crore)
Ranchi	188.14	40.36			5.00	233.5
Deoghar		24.00			4.00	28.00
Hazaribagh	310.43	11.86			4.00	326.29
Giridih	28.84	7.36			3.00	39.20
Adityapur		351.48			4.00	355.48
Chas	143.57	9.54			4.00	157.11
Dhanbad	101.16				5.00	106.16
Total	772.14	444.60	0.00	0.00	29.00	1245.74

Source: The State Annual Action Plan (SAAP) of Jharkhand (FY 2017-18 to 2019-20) The state Urban Development Agency (SUDA), The Urban Development & Housing Department, Govt. of Jharkhand

Swachh Bharat Mission (SBM)

The achievement of the state government in Swachh Bharat is evident from the fact that the state made a journey from 31 per cent of the urban population having no access to a safe toilet in the initial years till this year (2018) when the state won the award for the best-performance state under Swachh Bharat Mission. The effort is evident from the fact that the Jharkhand urban areas were declared free of open defecation on 2nd October 2017, which is two years prior to the set deadline. The achievement in this regard includes the following but a lot needs to be done in this sphere:

- The SBM programme run by the state has constructed 525 units of community toilet consisting of 4,098 seats,
- 2,13,917 IHHL have been constructed in the mission period against the target of 1, 61,713,
- 100 per cent door-to-door collection has been accomplished in 96 per cent of wards,
- Source-segregation is being done in 77 per cent of the wards of the state,
- The concessionaire has been appointed for 21 ULBs (18 WTC + 1 WTE), i.e. Ranchi, Deoghar, Khunti, Seraikela, Bundu, Chirkunda, Chaibasa, Chatra, Gharwa, Jamtara, Godda, Mihijam, Giridih, Pakur, Jhumritilliya, Koderma, Chakulia, Dhanbad, Rajmahal, Sahebganj and Latehar. The SWM plant constructions are completed in Deoghar and Giridih & are under trial.
- “Swachhata App” for grievance-redressal developed by MoHUA has been successfully implemented in all ULBs, with a grievance redressal rate of 99 per cent,
- The state has furthered its effort to improvise the service facility to its citizens and installed an ICT-based feedback-polling-station for gathering public feedback on public and community toilets installation in all the major cities,
- All SWM vehicles in the ULBs are under VTS for proper monitoring.

The state has initiated actions to address the advanced needs on the services-front, to minimise the negative impact of landfill. It is promoting on-site composting through Resident Welfare Associations. Waste composters have also been installed at various locations/BGGs in the ULBs. Reverse vending machines for the processing of solid PET and Aluminium /Steel waste have been installed in Ranchi, Dhanbad and Jamshedpur as pilot projects. Besides these, the various parks and gardens in cities are equipped with the facility of pit composting. To curb the harmful consequences of plastic-usage notification to ban plastic usage has been issued and awareness campaign to maximise the impact have been undertaken coupled with regular raids on the erring shopkeepers, malls and markets. Similarly, the state considers E-waste as a new danger for the urban areas and hence it is promoting the development of E-Waste segregation centers in the cities. Currently, municipality of Ramgarh has such a facility that deals with E-waste and has been the lighthouse for other cities to emulate.

Apart from the ground level initiatives the government has come with Fiscal Sludge management Policy to address the sludge management in the areas that are not covered under the sewerage network. This policy promotes the proper functioning of fiscal sludge and septage management systems encourages the recycles and reuse of treated wastewater for non-potable applications.

The initiatives taken in this regard have yielded accolades for the state, and the cities of the state have been receiving recognition from the government of India consecutively in the FY 2016-17 and FY 2017-18. In Swachh Sarvekshan, 2018; Jharkhand has secured the first position for being the best performing state apart from having received other awards in 5 different categories. According to Swachh Sarvekshan 2018, the ranking of Jharkhand based on the average scores from the ULBs greater than 1 Lakh Population is 8th among the 29 states of India. In case of state-wise average SLP scores, Jharkhand secures 4th position. In case of state-wise average DO scores, Jharkhand is at 2nd position. According to the state-wise CFB Scores, Jharkhand is the first rank holder. Jharkhand is at the 7th position in the state-wise average SWM score.

Table 5.13: Scores of Jharkhand in Swachh Survekshan 2018

Score of Jharkhand	Population >1 Lakh	Population < 1 Lakh
ULB (Urban Local Body)	8	29
SLP (Service Level Progress)	4	1
DO (Divert Observation)	2	1
CFB (Citizens' Feedback)	1	2
SWM (Swachh Bharat Mission)	7	1
State-Wise Average Total Scores	1	1

Data Source: Swachh Survekshan, Ministry of Housing and Urban Affairs, Government of India 2018

Nine cities of Jharkhand have been listed under the

ULB ranking among the 100 cities having a population of more than 1 lakh. Chas is at the 19th position followed by Mango (20) and Ranchi (21) respectively. The other six cities are Jamshedpur (30), Dhanbad (53), Deoghar (56), Giridih (58), Adityapur (64) and Hazaribagh (96).

Table 5.14: Status of the Cities of Jharkhand in Swachh Survekshan 2018

Cities/Towns	ULB Ranking among 100 Cities (Population >1 Lakh)
Chas	19
Mango	20
Ranchi	21
Jamshedpur	30
Dhanbad	53
Deoghar	56
Giridih	58
Adityapur	64
Hazaribagh	96

Data Source: Swachh Survekshan, Ministry of Housing and Urban Affairs, Government of India 2018

Box 5.1

India's Best Small City in 'Citizen Feedback' Giridih Nagar Parishad (Awarded ULBs)

The city of Giridih is a Nagar Parishad of Jharkhand, with a population of around 1,14,000 people. With a score of 1317 marks out of 1400, the city has secured the second highest position in all over India in the

1 lakh+ population category and has secured the award for India's Best Small City in Citizens' Feedback. Overall, the city has received a score of 2813 marks out 4000 in the Swachh Survekshan 2018.

Regarding the Service Level Progress, the city administration has displayed its efforts in the fields of solid waste management, sanitation, IEC messages, behaviour change measures and capacity building. Post verification of the city's claims in the service level progress, the city was awarded 439 marks out of 1400 in this regard. In the Direct Observation component, the city has a very high score of 1057 marks out of 1200. This component involved the visit of an independent assessor to several locations around the city including residential areas, commercial areas, bus stands, the railway station, public and community toilets, and waste treatment facilities. The city has received a perfect score of 400 for Swachhata App downloads, resolution of complaints and usage by citizens. Most importantly, however, the city's residents have responded positively to the city's efforts in Swachh Bharat Mission, and with overwhelming zeal. More than 91% of the respondents who were asked about general cleanliness, improvement of sanitation and public facilities, number of public convenience facilities, and their cleanliness have given positive feedback and appreciated the work of their local municipal body

Box 5.2

India's Best State Capital/UT in 'Citizen Feedback' Ranchi Municipal Corporation

As has been awarded ULBs at the national level (state capital/union territory) Ranchi is the capital city of the state of Jharkhand, which is also the Best Performing State in Swachh Survekshan 2018. The city has a high score of 3146 marks out of 4000 overall in the Swachh Survekshan 2018. In the Service Level Progress component, the city's claims in providing services to its residents were verified independently, and 752 marks out of 1400 were awarded to the city's administration – encompassing the city's successful efforts in solid waste management, sanitation, IEC messaging, capacity building and behaviour change measures. In the Direct Observation component carrying 1200 marks, the city has scored a near- perfect 1169 marks. Independent assessors visited several locations around the city and captured photographs of the residential areas, commercial areas, bus stands, railway stations, vegetable markets, waste treatment plants, etc. and found most of them to be impeccably clean. Even the public and community toilets were evaluated under this component and were found to be clean and complete with the required facilities to encourage their use among the general public. Amongst all the state capitals and the union territories in India, Ranchi Municipal Corporation has been adjudged 'India's Best Capital City in Citizens' Feedback'. Having scored 1225 marks out of 1400, Ranchi's citizens have affirmed their faith in the local municipal administration with respect to Swachh Bharat Mission activities and initiatives. In the Swachhata App component of Citizen's Feedback which assesses the number of Swachhata App downloads, some issues, the city has scored the full marks of 400.

In the six questions asked to the residents through the direct feedback (face-to-face, web portal, outbound calls), over 85% have responded positively to the general cleanliness of the city, awareness about the Swachh Survekshan and other Swachh Bharat activities of the Municipal Corporation, improvements in cleanliness over the previous years, cleanliness of public and community toilets, provision of facilities in toilets and increase in their numbers. Ranchi Municipal Corporation has taken the following initiatives within one year: **Enforcement Squad:** Ranchi Municipal Corporation had a big challenge of eliminating about 25 OD Spot from the region. With a workforce of 25 to 30 enforcement officers who constantly kept a vigil every day in the morning at about 5 am to identify the people who go for open defecation and made them aware about the negative impact of OD, also persuade them to use either IHHLs or the community toilets in the area. In about two to three months, the special drive met with almost 100 per cent success. **Beautification & GVP Transformation:** Ranchi Municipal Corporation is determined to bring zero waste status to the city. For this, several workshops have been organised, to encourage people to make compost from the wet waste in their premises. Various hotels/banquet halls are now making compost in their premises, and many bulk RWAs have a system to convert the wet-waste into compost. All the parks of RMC are doing 'Pit Composting'. SHGs are helping people in doing so. RMC has beautified all GVPs with the help of paved blocks, plantation, grass and background paintings. Now, all the GVPs from the RMC areas have been converted into beautiful parks. **Plastic Ban:** Ranchi Municipal Corporation has banned plastic carry bags. There was a challenge of disposing of the seized plastic carry bags. For this, the RMC has initiated in a very smart move to use the same in the construction of plastic roads. The use of plastic reduced the cost of bitumen up to 8%, and the road is skid free. **Wall Painting & Hoarding:** Ranchi Municipal Corporation encouraged the use of the local SOHRAI art for wall paintings in the different areas. In a very innovative manner to encourage and attract people towards the slogans of Swachh Bharat Mission, famous Bollywood movie dialogues were used to spread the message of sanitation.

In 2018 Swachh Survekshan, ten towns of Jharkhand has been listed. The population of these towns is less than one lakh. Out of ten towns, Bundu is at the 4th position followed by Chaibasa (14) and Gumla (22).

The other towns are Phusro (29), Pakur (35), Simdega (67), Chirkunda (71), Chakulia (73), Garhwa (&4), Chatra (88).

Table 5.14: Status of the Towns of Jharkhand in Swachh Survekshan 2018

Cities/Towns	ULB Ranking among 100 Cities (Population <1 Lakh)
Bundu	4
Chaibasa	14
Gumla	22
Phusro	29
Pakur	35
Simdega	67
Chirkunda	71
Chakulia	73
Garhwa	74
Chatra	88

Data Source: Swachh Survekshan, Ministry of Housing and Urban Affairs, Government of India 2018

Solid Waste Management

In order to keep the city clean and pollution free, it is required to collect, transport, treat and dispose off household garbage and medical/industrial waste in a scientific and systematic manner which is known as solid waste management (SWM).

A total number of 42 cities is being targeted for the execution of SWM projects in the current financial year. 19 SWM projects for the 21 ULBs Ranchi, Deoghar, Khunti, Seraikela, Bundu, Chirkunda, Chaibasa, Chatra, Gharhwa, Jamtara, Godda, Mihijam, Giridih, Pakur, Jhumritilliya, Koderma, Chakulia, Dhanbad, Rajmahal, Sahebganj and Latehar have been awarded and concessionaire appointed. The SWM plant-construction has been completed in Deoghar and Giridih and is currently under trial.

The SWM projects for Chas, Hazaribagh and Chakardharpur are in the process of receiving tenders. The DPRs of SWM projects for Lohardaga, Madhupur, and Simdega are under revision. The DPR for the Adityapur cluster for 5 ULBs namely Jamshedpur, Adityapur, Mango, Jugsalai and Kapali is under administrative approval. DPRs of the SWM project for Basukinath, Gumla, Phusro, Ramgarh, and Hussainabad are in the process of preparation. User charges for solid waste management service have been notified

and implemented. The State Sanitation Plan has been notified and implemented.

Dindayal Antoday Yojana-National Urban Livelihood Mission (DAY – NULM)

The government of Jharkhand through the NULM scheme aims to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment/ skilled wage employment opportunities along with providing shelters to the homeless.

In this regard, Jharkhand has trained 105151 youths till date. 18641 beneficiaries have been provided wage employment and 6492 beneficiaries have been provided self employment. Jharkhand organized Global Skill Summits in year 2018 and 2019 successfully, wherein 3314 youth have been provided employment opportunities in 2018, and 14892 youth in 2019 respectively. The state facilitated a total loan of Rs. 31.94 crores to 4067 beneficiaries to initiate their Start-up. Women entrepreneurs are being encouraged by the state; credit linkage amounting to Rs. 1.98 crores was provided to 252 SHGs, 8840 self help groups (SHGs) have been formed and provided revolving fund amounting to Rs. 5 crores to cater to their OPEX needs.

Under the rehabilitation drive, the street vendors in the cities are being provided with special vending zones that will not only give them a space of their own to do business but also decongest the city. The state has identified 36,961 street vendors and earmarked a fund of Rs. 58.54 crores to establish 117 vending zones across 34 ULBs.

To cater to the needs of the homeless population, 40 shelter-homes across 19 ULBs have been operating in the State and 18 new Shelter homes are under construction. Winter shelter homes are being operationalized in 26 ULBs, and Rs. 2.7 crores have been sanctioned out of departmental budget for their operationalization.

Namami Gange

It is an Integrated Ganga Conservation and Rejuvenation Mission for restoring wholesomeness of the river Ganga by implementing the ideas of guaranteeing Nirmal Dhara and Aviral Dhara with an oath to keep up the ecological and geological integrity of the Ganga river.

The Ganga flows in a stretch of 83 Kms in Jharkhand through the Sahebganj district only. The urban local

bodies on the bank are Sahebganj and Rajmahal which are non-AMRUT Cities. The total population covered on the bank of the river Ganga is 3,44,616 out of which the total urban population is 1,23,459 and the rural population is 2,21,157. The major source of economy is agricultural & mining activities.

The Namami Gange Scheme is a centrally sponsored programme under MoWR, RD&GR, GOI. The honorable Prime Minister of India had announced Jharkhand to be developed as a model state for the rejuvenation of the Ganga in 2014. With an aim for success in this era, three pollution abatement and 4 Ghat development projects of total sanctioned cost for Rs 268.72 in the Sahebganj district of Jharkhand which will be completed and open to the public between March 2019 to December 2019.

The mission is being executed with the integral efforts 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.

The departments of the Urban Development and Housing, GoJ is the nodal agency for the implementation of Namami Gange programme in urban areas of Jharkhand.

Projects' status can be seen at a glance-

Table 5.15: Status of Project of Namami Gange

Sahebganj MWW Project	31.03.2019
Rajmahal MWW Project	31.12.2019
Sahebganj River Front Development Project	31.03.2019
Rajmahal River Front Development Project	31.03.2019
Kamhaiyasthan River Front Development Project	30.11.2018
River Front Development of 8 Ghats by NPCC Ltd	31.03.2019
River Surface Cleaning Work	03.01.2020

In addition to the above, the Department of Drinking Water and Sanitation (DWSD), Jharkhand is the nodal department for the implementation of sanitation initiatives in the rural area of the Sahebganj district.

It is being implemented through the National Rural Drinking Water Programme and Swach Bharth Mission (Rural).

The statistics show that total 66 villages on the bank of the river Ganga have been declared ODF and verified during the FY 2017-18. To ensure sustainability of the ODF villages, the following steps are undertaken:

- I) IEC activities are carried out by using Swachhtagrahis.
- II) Usage of colour coded stickers to ensure use of toilets.
- III) Implementation of DPRs for SLWM (Solid liquid Waste Management) for 33 gram panchayats 15 Gram Panchayat DPRs are ready and the remaining 18 DPRs are in the preparatory process.

Pradhan Mantri Awas Yojana - PMAY(U)

The PMAY(U) scheme under Housing for All mission seeks to address the housing requirements of the urban poor including slum dwellers through its four verticals i.e. "In situ" Slum Redevelopment, Affordable Housing through Credit Linked Subsidy, Affordable Housing in Partnership and Subsidy for the beneficiary-led individual house construction with a converged aim of 'Housing for All by 2022'. Jharkhand intends to provide affordable houses to 2.47 Lakh identified households under the PMAY (U) scheme.

As per the Government of India (GoI) report of October'2018 on the PMAY(U) scheme, Jharkhand has been ranked number 1 with respect to the approval of housing projects by GoI against the demand raised by the respective states.

The programme in all the local Urban pockets of Jharkhand include the following:-

- Housing for All Plan of Action (HFAPoA) has been prepared in all 41 ULBs.
- Annual Implementation Plans of 41 ULBs have been approved by the respective Boards of ULBs.
- Road Map for the implementation of HFA has been prepared.
- Jharkhand Affordable Urban Housing Policy 2016 has been notified.
- Programme Management Consultants have

been appointed to monitor the progress of work under the Beneficiary-led individual house construction.

- Geo-tagging and MIS systems have been implemented for monitoring the progress of all

the approved-dwelling units being constructed under PMAY(U).

- The total number of sanctioned projects under the various verticals of PMAY(U) is as follows:

Table 15.16: Projects Sanctioned under (PMAY (U))

Demand Assessed	Component	Houses	Houses
		Sanctioned (Nos.)	Grounded (Nos.)
2.47 lakhs (45 cities) Demand Assessment completed .	AHP	42,493	1067
	BLC	1,00,386	46882
	ISSR	15,517	-
	Total	1,58,396	47949

a) Vertical IV : Subsidy for beneficiary-led individual house construction.

A total approval of 1,00,386 dwelling units under the beneficiary-led individual house construction has been obtained.

Table 15.17: Status of Beneficiary - Led Individual House Construction

Phase	Houses Approved	Grounded/In Progress				Completed
		Foundation	Plinth	Roof	Total	
BLC (New)	1,00,386	22759	9678	14445	46882	35876

b) Vertical III : Affordable Housing in Partnership

The state has notified Jharkhand Affordable Housing Policy – 2016, with an emphasis on innovative technology like prefab technology, green housing, rainwater harvesting and water conservations technologies.

Under vertical III (Government Resolution for the implementation process has been notified in November 2018, implementation strategy has been approved from the cabinet and government. Letters have been issued. Revised DPRs have been prepared and tendering process has been initiated.

A total 42,493 DUs has been sanctioned from GOI for the construction of DUs under vertical III. The tenders for construction of about 30,000 DUs will be floated by January 2019. For the construction of 2040 DUs of Bagunhatu (Jamshedpur) tenders have already been published .

c) Vertical II : Affordable Housing through Credit Linked Subsidy

Under the Credit Linked Subsidy Scheme, HUIDCO and NHB are Central Nodal Agencies and are facilitating the process with the PSBs through the State Level Bankers' Committee. Till date 916 loan applications have been sanctioned and 17 crores have been disbursed as subsidy.

d) Vertical I "In situ" Slum Redevelopment

Under the In-situ rehabilitation of the existing slum dwellers, a total 131 with a total 52584 household have been identified residing in the slum pockets. The DPR preparation of these "In- Situ" slum Redevelopment project is under process. A total 15,517 DUs had been sanctioned from GoI till date.

Under vertical I (Government Resolution for the implementation process has been notified in November 2018) implementation strategy has been approved by the cabinet and the government. Letters have been

issued. Revised DPRs have been prepared and tendering process has been initiated.

Recommendations of the 14th Finance commission & action taken by the state

1. Strengthening the State Finance Commission
2. ULBs to Improve revenue from own sources
3. Ensuring property tax reforms
4. State to share the information on the property tax among the ULBs
5. Levy of the vacant land tax
6. Empowering local bodies to levy taxes on betterment tax and advertisement tax
7. Reviewing the structure of the entertainment tax
8. Rationalising the service charges
9. Sharing of information on royalties from the mines with local bodies
10. Exploring the issuance of the Municipal bonds

• **Reforms were undertaken for Revenue Augmentation**

The Urban Local Bodies (ULBs) of the state face the challenge of delivering better services to the citizens with the constraints of limited financial and human resources. The ultimate objective is to provide better quality infrastructural services on a sustainable basis. To meet this challenge ULBs need to generate revenue from their own sources and manage the services through financially sustainable systems backed up by robust governance.

It was observed from the experience of other states that the ULBs lack financial income from their own sources. To tackle this issue, the state government devised a multi-faceted approach. On the one hand it brought legal and administrative reforms, while on the other, it created a robust financial system and capacity building of the municipal staff. It has undertaken credit-rating exercise to enable the municipality to mobilise funds from the open market as well. The steps taken to augment the revenue of the ULBs in the state have been illustrated below.

Action Taken by the state:

The following legal and administrative reforms have been taken by the state to assist the ULBs to generate their revenue

Legal Reform

- a) Property Tax Rules, 2015: Old Provisions of Bihar Orissa Municipal Act 1922 was replaced by Jharkhand Municipal Act 2011 and Holding Tax Rules 2015. The earlier property tax system was replaced by the area based self -assessment system based on Trust and verification.
- b) Communication towers and related Structures Policy, 2015: Rates are being revised at par with the other states. Annual Renewal Fees are being introduced. Incremental and Penalty Provisions are being introduced.
- c) Solid waste User Charges Policy, 2016: User Charge for the collection of waste is introduced. This would not only promote cleanliness in line with SBM but also generate revenue for the ULBs
- d) Advertisement Policy, 2016: The Advertisement Policy is being revised to introduce zone- wise rates and Processes and are being introduced which will be at par with the other States
- e) Water User Charges Policy, 2016: User Charges were revised to cover total-cost recovery.TCA and PMU are appointed to ensure that coverage is increased and NRW is being reduced. This has also led to an improvement in billing and collection efficiency.
- f) Trade License Rules, 2017: Trade Licenses Rates are being introduced to regulate Businesses. Trade Licenses are being issued under AMRUT Transformative reforms, i.e. Trust and Verification.
- g) Parking Regulations, 2017: Parking Rules have been framed to ease the traffic congestion in Jharkhand. This would not only reduce congestion but also generate revenue for the ULBs

Administrative Reforms

Urban Development and Housing Department, Government of Jharkhand, has adopted most of the 18 functions of the 74th CAA. Further, to make its system more effective the, following administrative reforms have been adopted:

a. Appointment of Tax Collection Agency

Looking at the gaps and lack of required manpower, the ULBs outsourced the assessment and collection of taxes to a third party to ensure that collection is not hampered due to the lack of staff

b. Creation of updated online database

Jharkhand has adopted the latest technologies in the various stages of reform to take advantage of this reform opportunity. A new system – Revenue Management System is in place that takes care of the Property Holding Tax, Water user charges, Municipal license etc. This system enables the citizens to file their taxes from the place of their convenience and promotes a cleaner system with no interference from third parties.

c. Increased IEC activities

Public awareness and cooperation are essential for the effective collection of tax. The state government through municipalities had undertaken the activities like public announcements through the mike, Nukkad Nataks, Advertisements in theatres, etc.

d. Sample Survey to combat under assessment

Self-Assessment System was introduced whereby citizens submit the sum moto information about their property and for the faster collection of taxes. However, to tackle the possibility of underassessment, a sample survey is being conducted which has yielded positive results for the ULBs.

• Accounting and Audit reform

Accrual Based Double Entry Accounting System (ABDEAS) has been implemented in all the ULBs of Jharkhand for better control and transparency on the Accounting process of the ULBs

• Credit Rating of ULBs

Apart from the legal and administrative reforms the state has under taken credit rating survey that is essential for the ULBs to generate fund from the open market through the floating of municipal bonds.

The credit-rating for all the cities of Jharkhand including the 7 AMRUT cities has been completed. Out of all, Ranchi has received BBB-, which is investing grade. The government is in the process of floating Municipal Bonds for Ranchi. The Transaction Advisor in this regard has been appointed.

The other six cities (Adityapur, Chas, Deoghar, Dhanbad, Giridih and Hazaribagh) have received BB-grade, which is Non-investment grade. It is trying to improve the service level and facilities that will improve the financial conditions of the said AMRUT cities and will enable them to get a better IGR which requires floating Municipal Bonds. Apart from this, Jharkhand

government is also focusing on following sectors.

- Solid Waste Management in all ULBs
- Vending Zone
- LED street lighting
- Online Building Plan Approval Management System
- Shelter Houses for the urban homeless
- Modular Urinals and Toilets
- Night sweeping in commercial areas
- Pit Composting in the Vegetable-Markets and Parks

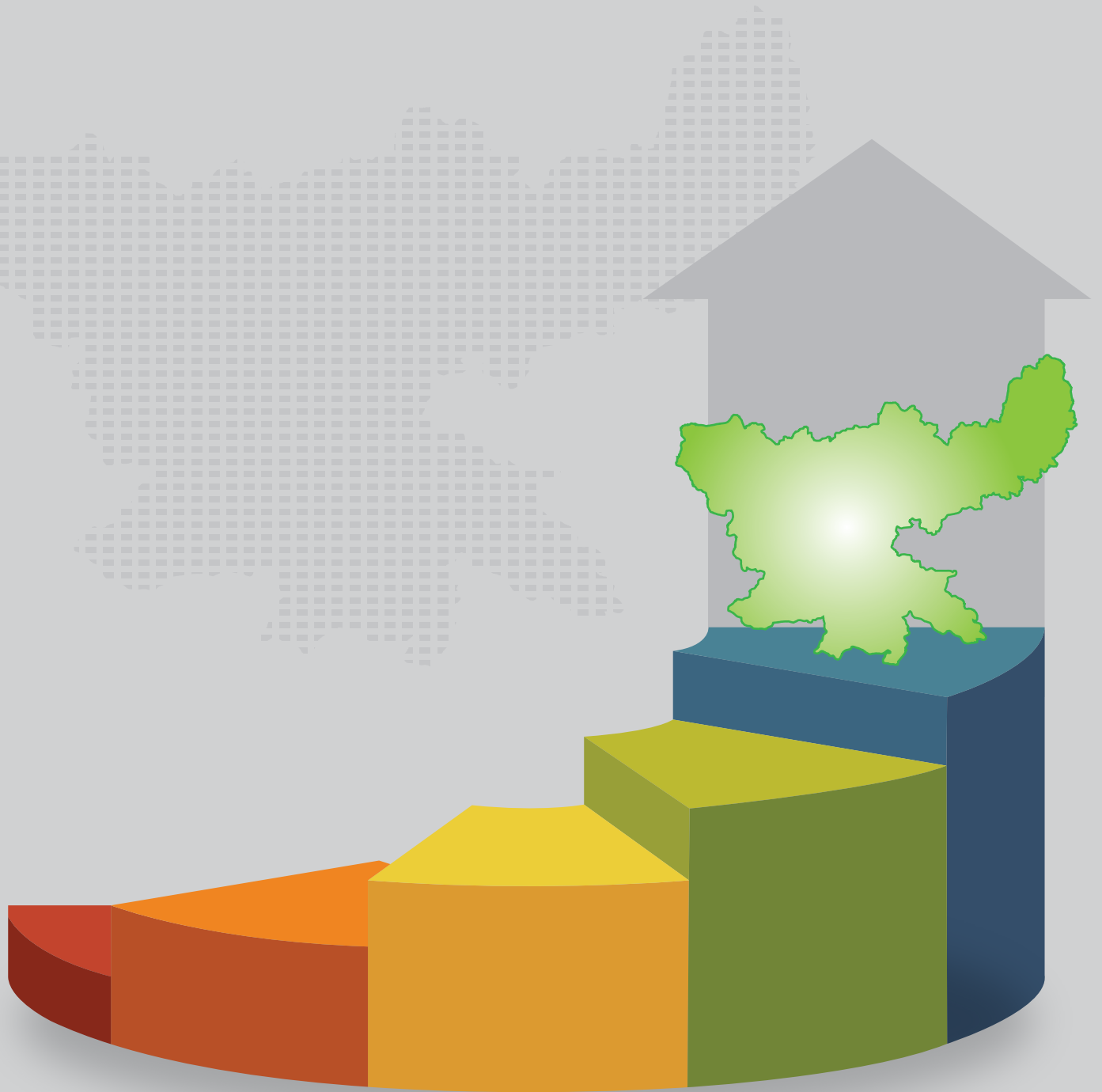
Conclusion

Around 24 per cent of the population of Jharkhand live in the urban areas, and the decadal growth rate reflects that the pace of urban growth in Jharkhand is quite high. The concentration of the urban population is the highest in the class I cities. The decadal growth rate across the class six cities and towns reflects that it the highest in class I cities requiring a high level of development of the urban infrastructure in these cities. Apart from it, small towns also attract people for the employment, recreation, education, health and other facilities and this way; they reduce the population-pressure on the larger cities. Thus, there is also a need to develop the smaller towns in a planned way. The increase in the per capita basic facilities for the people of the urban areas, therefore, is a priority for the government of Jharkhand.

The government of Jharkhand has adopted many centrally sponsored schemes and programmes for the urban development, for instance, Smart City, AMRUT, DAY-NULM, Swachh Bharat Mission, Namami Gange and Pradhan Mantri Awas Yojana etc. The state is achieving the target of development through these schemes and programmes. One of the remarkable achievements of the state is noticed under the scheme of Swachh Bharat Mission in which, Jharkhand has been awarded number 1 among the “Best Performing States”. Ranchi has been awarded as India’s Best State Capital/UT in ‘Citizen Feedback’ and Giridih has been awarded India’s Best Small City in ‘Citizens’ Feedback’ in the Swachh Survekshan 2018. Jharkhand has also succeeded to earn the incentives for the successful implementation of the AMRUT reforms in 3 successive years i.e. in the FY 2015-16, FY 2016-17 & FY 2017-18.

VI

AGRICULTURE AND ALLIED ACTIVITIES



Agriculture is one of the important contributors to the development of Jharkhand's economy. Though the share of crop, livestock and fisheries taken together is only about 11 per cent of the GSVa of the state, they are an important source of labour absorption, income

generation and food security. Their direct contribution to the growth rate is low, only 5.1 per cent¹, but indirectly by creating a demand for and the supply of the products of the non-agricultural sector, they contribute to the growth of the other sectors as well.

Table 6.1: Share of the agricultural sector in Gross State Value Added (GSVA) at Constant Prices (2011-12 series)

	Value of output (in ₹ Crore)			% Share Total GSVA			% Growth over the previous year	
	2016-17 (P)	2017-18 (Pr.)	2018-19 (Pr.)	2016-17 (P)	2017-18 (Pr.)	2018-19 (Pr.)	2017-18 (Pr.)	2018-19 (Pr.)
Crop	14275	14839	15425	8.31	8.11	7.91	3.95	3.95
Livestock	5280	5271	5261	3.07	2.88	2.70	-0.17	-0.17
Fishing & Aquaculture	891	937	985	0.52	0.51	0.51	5.10	5.10
Total	20447	21046	21671	11.9	11.5	11.12	2.9	3.0

Source: DES, the Government of Jharkhand

Realising the importance of this sector for the economy in general and the farming community in particular, the government of Jharkhand has taken several initiatives. The agricultural sector accounts for the major occupation of the state and thus has to be given vital importance. This chapter states the status of the agricultural sector of the state and the initiatives taken by the government to promote it.

State Agriculture Profile

Agro-Climatic Zone

Jharkhand is classified into three agro-climatic zones – the central and western plateau zone, the central and north eastern plateau zone and the south eastern plateau zone known as sub-zones IV, V and VI, respectively. The important characteristics of these sub-zones are as follows

Sub Zone IV: Central and Western Plateau Zone

- Low water- retention capacity of the soil particularly that of uplands.
- Late arrival and early cessation of monsoon and the erratic and uneven distribution of rainfall.
- Lack of a safe disposal of runoff water during the monsoon and water storage and moisture

conservation practices for raising Rabi crops.

- Drying of tanks and wells by February results in no Rabi crop production.

Sub Zone V: Central and North Eastern Plateau Zone

- Late arrival and early cessation of monsoon.
- Erratic /uneven distribution of rainfall.
- Low water retentive capacity of soils.
- Lack of soil and water conservation practices

Sub Zone VI: South Eastern Plateau Zone

- Uneven distribution of rainfall.
- Low water holding capacity.
- Eroded soils.
- Poor soil fertility.

The pattern of Land Utilization

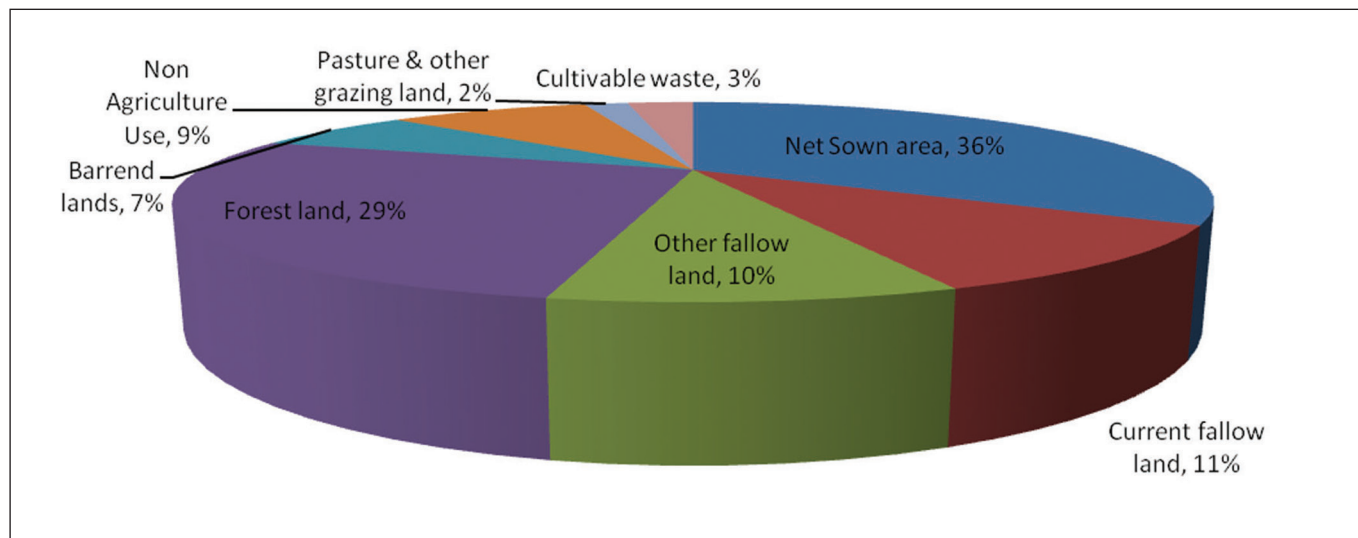
The total geographical area of Jharkhand is 79.71 lakh hectares of which almost 29 percent is under forest coverage. The net shown area of the state is 28.36 lakh hectares which is almost 36 per cent of the total geographical land of the state. Around 7 per cent of the area accounts for barren land. 9 per cent of the land

¹ Contribution of the sector to the growth rate of state's economy is calculated by weighting the growth rate of the sector by the sector's share in GSVA. Please see chapter 1 of this survey.

comes under non-agricultural use, 2 per cent of the land is under permanent pastures and other grazing lands, and 3 per cent of the land is under cultivable wasteland.

About 21 percent of the total area is fallow about 11 per cent is current fallow and 10 per cent is other fallow (Fig 6.1).

Figure 6.1: Pattern of land utilization in Jharkhand



Source: The Directorate of Agriculture, Government of Jharkhand

The total cultivable land of Jharkhand is 38 lakh hectares which constitutes 48% of the total geographical area of the state. Kharif is the main cropping season for Jharkhand. Kharif crops are grown on about 28 lakh hectares and Rabi crops are grown on about 11 lakh hectares of land. Agriculture, mainly rain-fed in the state is dependent on the south west monsoon. Though the average rainfall in the state is high, between 1200 to 1300 millimetres (mm), but it is confined to four

months of rainy season and is erratic in terms of timing, precipitation and intensity. About 20 percent of the net sown area has assured irrigation while the potential is to irrigate about 30% of the net sown area. The irrigation coverage thus is low and the state still has to realise its full irrigation potential. The cropping intensity of the state, as a result, is only 126%. The seed replacement rate for the state of Jharkhand was 15%.

Table 6.2 State Agricultural Profile

Land and others	The area in Lakh Hec	%
Total Geographical Area	79.71	
Total Cultivable land	38	48
In Kharif	28	
In Rabi	11	
Cropping intensity	126	
Average rainfall (mm)	1200-1300	
Net sown area having assured Irrigation		20
% of potential irrigated land		30
Fertilizer Uses (kg/Hec)	92	
Seed replacement rate		15

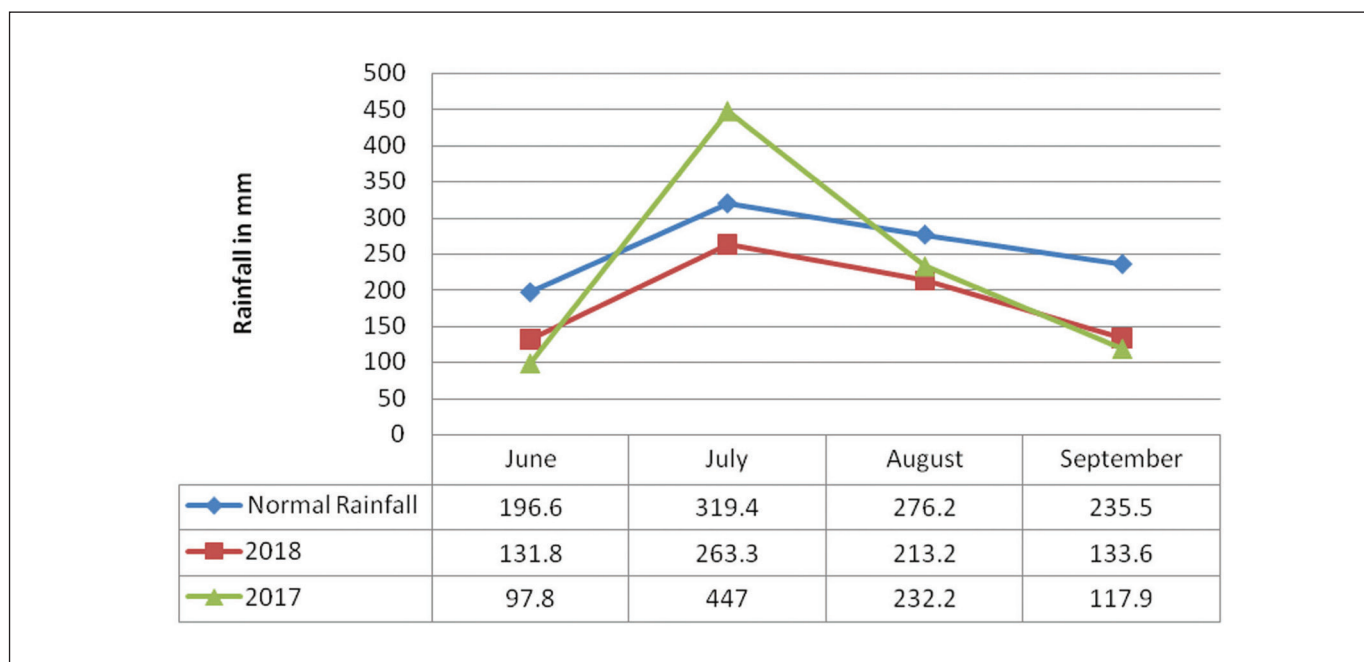
Source: The Directorate of Agriculture, Government of Jharkhand

Rainfall

As stated above agriculture in the state is mostly dependent on the monsoon. A large part of its annual rainfall is received during the south west monsoon season (June-September). Last year (in the monsoon season of 2017), the state received deficient rains

in June, excessive in July, almost normal in August and deficient in September. This year the rainfall has remained deficient throughout the rainy season. The rainfall has remained deficient by about 28 per cent in this rainy season – about 33 per cent in the month of June, 18 per cent in July, 23 per cent in August and 43 per cent in the month of September.

Fig 6.2: Normal and Actual Rainfall from June - September for the year 2017 and 2018



Source: The Directorate of Agriculture, Government of Jharkhand

Production of Crops

Kharif Crops

In the state, the largest area under cultivation among Kharif crops is dedicated to paddy. More than 60 per cent of the area under Kharif crop is occupied by paddy. The second largest area is dedicated to maize. About 10 per cent of the area under Kharif is occupied by maize. Among the pulses grown in the Kharif season, arhar and urad are the most important ones in terms of area and production. Together, they occupy about 14 per cent of the area under Kharif crops. Groundnut is the most important oilseed grown in the Kharif season in this state. It however, is grown in only about 1 per cent of the area under Kharif crops.

In the last three years, from 2015-16 to 2017-18, the output of most of the Kharif crops has recorded impressive growth. Paddy, in this period, has grown at an annual rate of about 41 per cent, maize by about 23 per cent, arhar by 21 per cent, moong by 25 per cent

and groundnut by 27 per cent. The output of these crops has increased, both because of increase in area under cultivation and the yield rate. The area under the cultivation of paddy has increased at an annual rate of 4.5 per cent, of moong by 9.5 per cent and Groundnut by 7.7 per cent. The area under the cultivation of maize, however, has almost remained constant and those of Arhar and Urad have decreased at the annual rate of 0.8 per cent and 13.3 per cent, respectively. Except for urad, the yield rates of all the major crops have increased in the last three years. The yield rate of paddy has increased by about 35 per cent, of maize and arhar by about 22 per cent and of moong and groundnut by about 13 and 18 per cent respectively.

The output of urad has decreased by about 14 per cent per annum in this period. This has happened both because of a fall in the area under cultivation and a fall in its yield rate. The area for this crop has decreased at an annual rate of about 13 per cent and the productivity by 0.6 per cent.

Table 6.3: Area, Production, and Yield of Kharif Crops 2015-16 to 2017-18
(Area in 000 hectare, Production-000 MT, Yield -Kg/hec)

Crop	2015-16			2016-17			2017-18		
	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
Paddy	1589	2569	1617	1707	4848	2840	1735	5109	2944
Maize	284	376	1324	286	573	2002	284	567	1993
Arhar	197	178	903	235	236	1002	194	261	1348
Urad	197	178	903	152	139	918	148	132	892
Moong	25	16	648	30	24	797	30	25	828
Groundnut	25	21	830	27	28	1049	29	34	1151

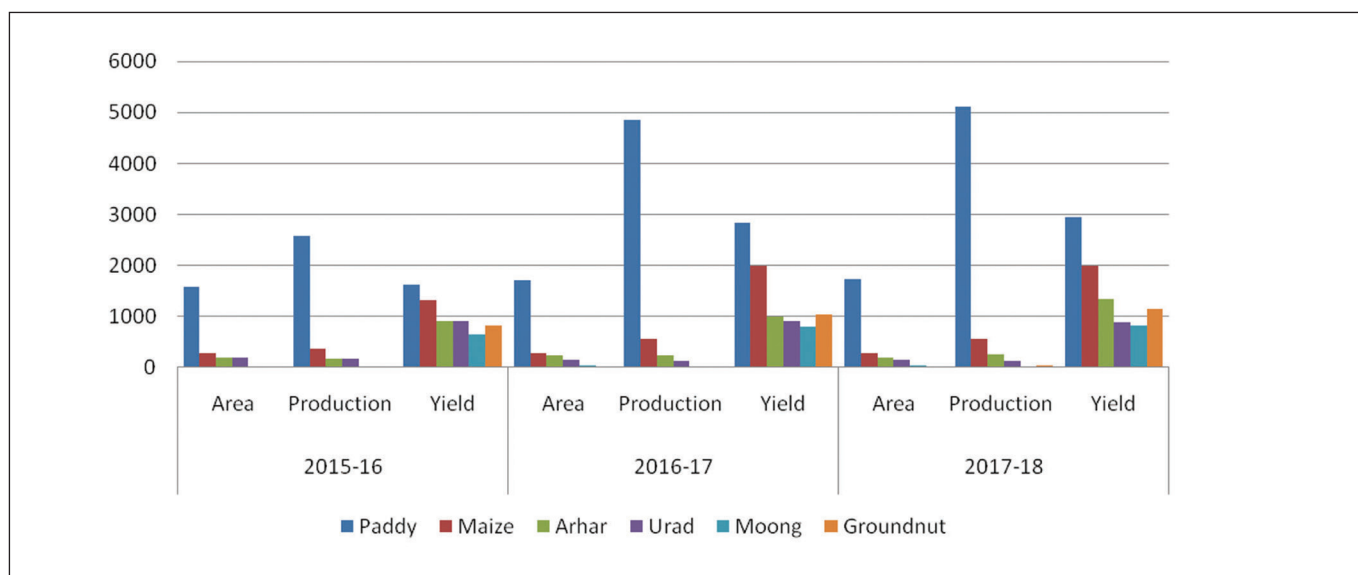
Source: The Directorate of Agriculture, Government of Jharkhand

Table 6.4: Compound Annual Growth Rate of Kharif Crops between 15-16 and 17-18

Crops	Area	Production	Yield	Crops	Area	Production	Yield
Paddy	4.5	41.0	34.9	Urad	-13.3	-13.9	-0.6
Maize	0.0	22.8	22.7	Moong	9.5	25.0	13.0
Arhar	-0.8	21.1	22.2	Groundnut	7.7	27.2	17.8

Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.3: Area, Production and Yield of Kharif Crops 2015-16 to 2017-18 (Area in 000 hectares, Production-000 MT, Yield -Kg/hectare)



Source: The Directorate of Agriculture, Government of Jharkhand

Rabi Crops

Among the Rabi crops, the largest area under cultivation is dedicated to bengal gram and wheat. Each of them occupies about 20 per cent of the total area under Rabi crops. Masoor, peas, and linseed occupy about 6 per cent, 5 per cent and 4 per cent of the total area under

Rabi crops, respectively. Maize is grown in the rabi season on a very small piece of land. It was grown on only 5 thousand hectares in the year 2015-16, but has become more popular in the recent years. The area under maize doubled in 2016-17 and had remained at the same level in 2017-18.

In the last three years, from 2015-16 to 2017-18, the output of most of the Rabi crops has recorded an impressive growth. The production of wheat, maize, bengal gram, masoor, peas and linseed grew at the rate of about 28 per cent, 53 per cent, 34 per cent, 37 per cent 44 per cent and 46 per cent, respectively.

The output of these crops has increased, both because of the increase in area under cultivation and the yield

rate. The area under cultivation of wheat, maize, bengal gram, masoor, peas and linseed grew at the annual rate of about 19 per cent, 41 per cent, 19 per cent, 28 per cent 38 per cent and 41 per cent, respectively. The yield rate of wheat, maize, bengal gram, masoor, peas and linseed grew at the rate of about 8 per cent, 7 per cent, 12 per cent, 6 per cent 4 per cent and 3 per cent, respectively (see Table 6.5)..

Table 6.5: Area, Production, and Yield of Rabi Crops 2015-16 to 2017-18
(Area in 000 hec, Production-000 MT, Yield -Kg/hec)

Crop	2015-16			2016-17			2017-18		
	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
Wheat	157	287	1835	221	470	2126	221	470	2126
Maize	5	9	1794	10	18	1796	10	21	2063
Bengal Gram	164	163	995	211	285	1351	233	293	1258
Masoor	42	32	766	62	54	864	69	60	868
Peas	31	35	1141	53	64	1217	59	73	1242
Linseed	26	14	534	39	24	612	52	30	571

Source: The Directorate of Agriculture, Government of Jharkhand

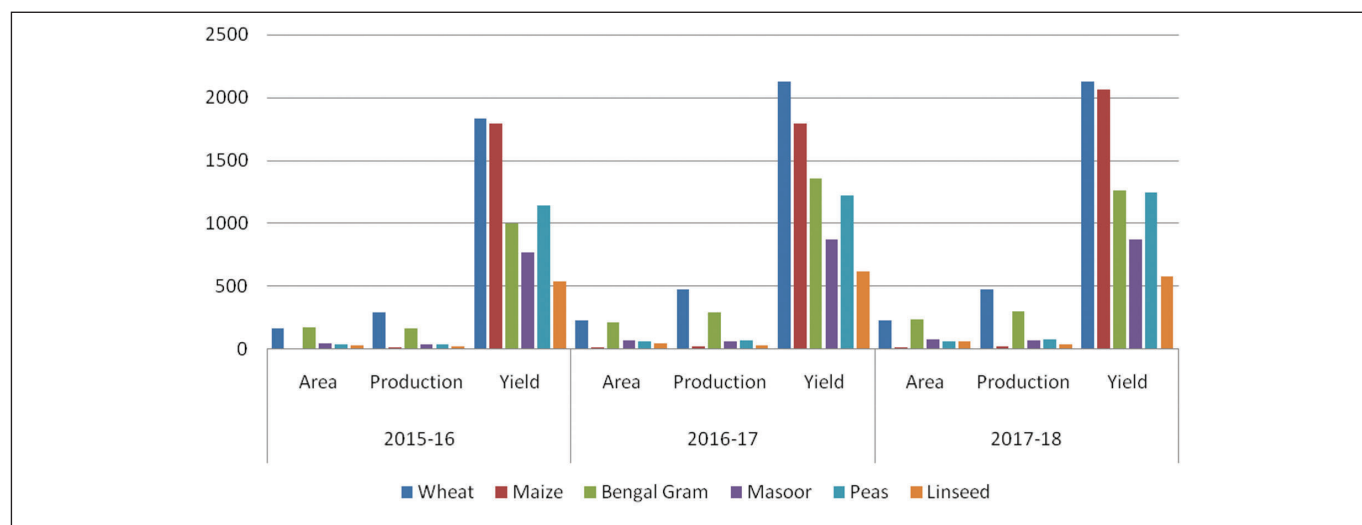
Table 6.6: Compound Annual Growth Rate of Rabi Crops between 15-16 and 17-18

Crops	Area	Production	Yield
Wheat	18.6	28.0	7.6
Maize	41.4	52.8	7.2
Bengal Gram	19.2	34.1	12.4

Crops	Area	Production	Yield
Masoor	28.2	36.9	6.4
Peas	38.0	44.4	4.3
Linseed	41.4	46.4	3.4

Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.4: Area, Production and Yield of Rabi Crops 2015-16 to 2017-18
(Area in 000 hectares, Production-000 MT, Yield -Kg/hectares)



Source: The Directorate of Agriculture, Government of Jharkhand

Crop-wise area, production, and yield of total pulses, food grains, oilseeds, and cereals

The area under the cultivation and production of pulses, cereals and oilseeds has increased in the last three years. The area under the cultivation of pulses increased from 553 thousand hectares in 2015-16 to 793 thousand hectares in 2017-18 and the production grew from 495 thousand tons to 884 thousand tonnes for the same period. Similarly, the area under cereals has increased from 2631 thousand hectares in 2015-16 to 3066 thousand hectares in 2017-18. The production of cereals in this period has increased from 3768 thousand tons in 2015-16 to 7071 thousand tons in 2017-18. The production of cereals in this period has thus grown at the annual rate of 37 per cent pulses by about 34 per

cent and oilseeds by 26 per cent. The total production of food grains (pulses and cereals) in the year 2017-18 was about 80 thousand tonnes. It in last three years grew at an annual rate of 37 per cent per annum.

The growth in the production of pulses, cereals and oilseeds in this period has taken place because of growth in both the area and the yield. The area of pulses, cereals and oilseeds increased at an annual rate of about 20 per cent, 8 per cent and 20 per cent respectively. The area under food grains in this period grew at an annual rate of 10 per cent. The yield- rate of pulses, cereals and oilseeds increased at an annual rate of about 12 per cent, 27 per cent and 5 per cent, respectively. The yield of food grains in this period grew at an annual rate of about 20 per cent (see Table 6.7 & 6.8)

Table 6.7: Crop-wise area, production, and yield of total pulses, oilseeds, and cereals

(Area in 000 hectares, Production-000 MT, Yield -Kg/ hectares)

Crops	2015-16			2016-17			2017-18		
	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
Pulses	553	495	895	805	844	1049	793	884	1114
Cereals	2631	3768	1432	3064	6730	2204	3066	7071	2306
Oilseeds	283	188	665	361	264	732	411	299	729
Food grains	3184	4263	2327	3869	7574	3253	3859	7955	3420

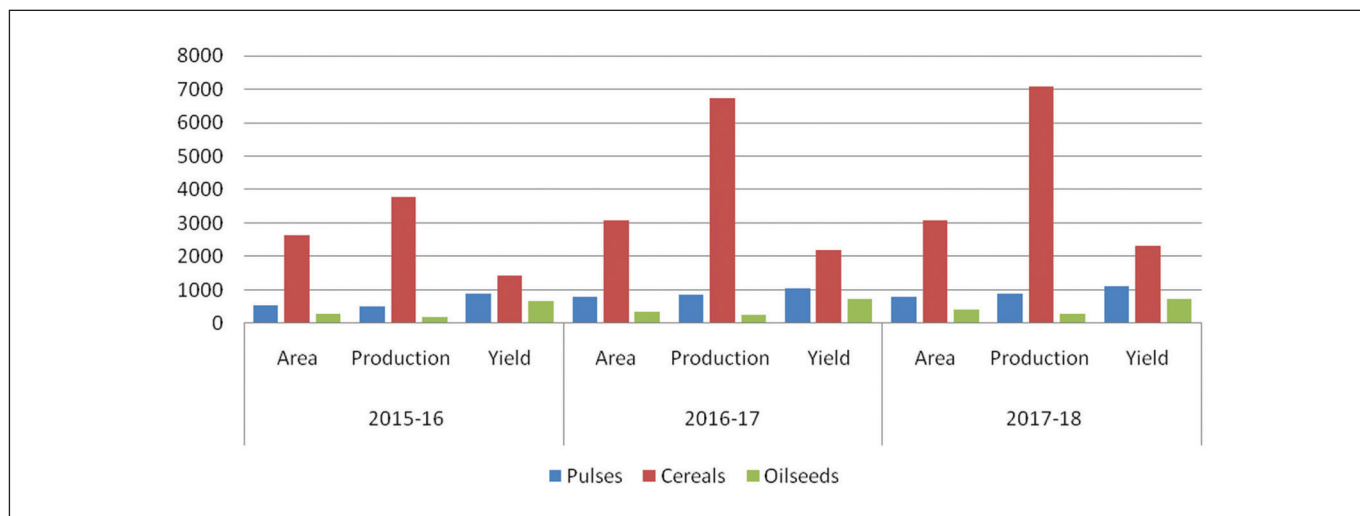
Source: The Directorate of Agriculture, Government of Jharkhand

Table 6.8: Compound Annual Growth Rate of Pulses, Cereals, Oilseeds and Production between 15-16 and 17-18

Crops	Area	Production	Yield	Crops	Area	Production	Yield
Pulses	19.7	33.6	11.6	Pulses	19.7	33.6	11.6
Cereals	8.0	37.0	26.9	Cereals	8.0	37.0	26.9

Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.5: Crop-wise Area, production, and yield of total pulses, oilseeds, and Cereals
Area-000 hectare, Production-000 MT, Yield -Kg/hectare



Source: The Directorate of Agriculture, Government of Jharkhand

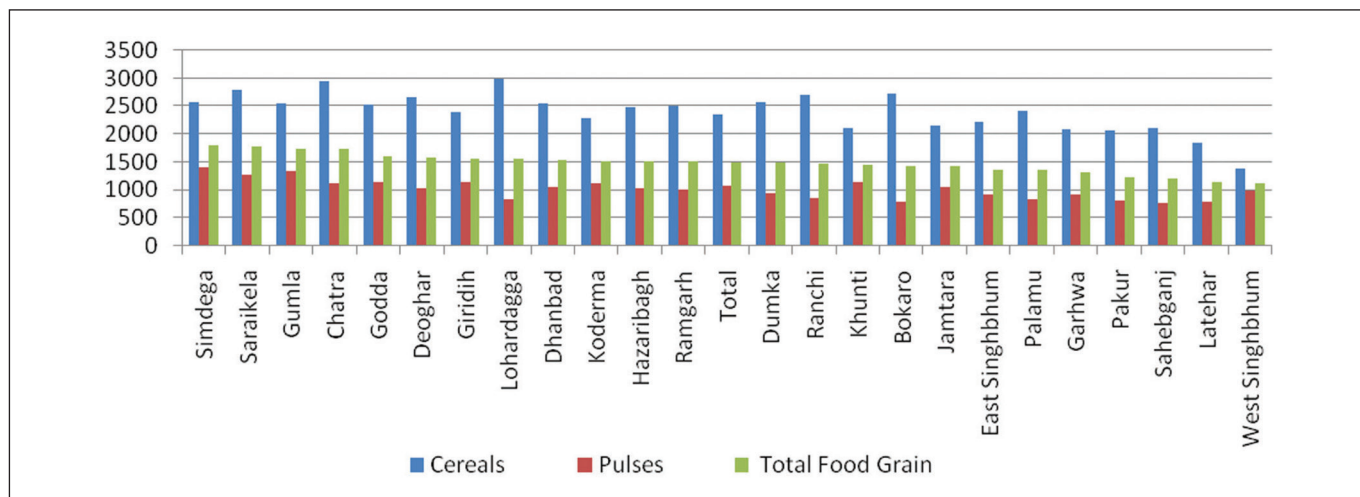
District wise total yield (average) for cereals, pulses, food grains and oilseeds for the year 2017-18

Productivity/yield is the best indicator for understanding the dynamics of food production and the potential yield or the yield-gap and to find out the inter-district potential in agrarian development. An inter-district analysis of the yield-rate of different crops shows that Lohardaga, Saraikela, Bokaro and Chatra have high yield-rates of cereals. While the average yield rate of cereals in Jharkhand is about 23 hundred kg per hectare that of these districts ranged between 27.38 hundred kg per hectare in Bokaro to 29.94 hundred kg per hectare in Lohardaga. On the other hand, the yield rate of cereals in West Singhbhum was as low as 13.77 hundred kgs

per hectares. The yield rates of the cereals of Pakur, Garhwa and Latehar were also less than 21 hundred kg per hectare. The yield rate of food grains of Jharkhand is 15 hundred kg per hectare but that of Simdega is as high as 18 hundred kg per hectare. The yield rate of Gumla, Saraikela and Chatra is also above 17 hundred kg per hectare. The yield -rate of food grains in West Singhbhum and Laterhar is less than 12 hundred kg per hectare.

The yield-rate of pulses in Jharkhand is about 11.14 kg per hectare, but in the Simdega district of Jharkhand it is more than 14 hundred kg per hectare and in Bokaro, Sahebgunj and Latehar it is even less than 8 hundred kg per hectare.

Fig 6.6: District wise yield rate of food grains, pulses and Cereals for the year 17-18



Source: The Directorate of Agriculture, Government of Jharkhand

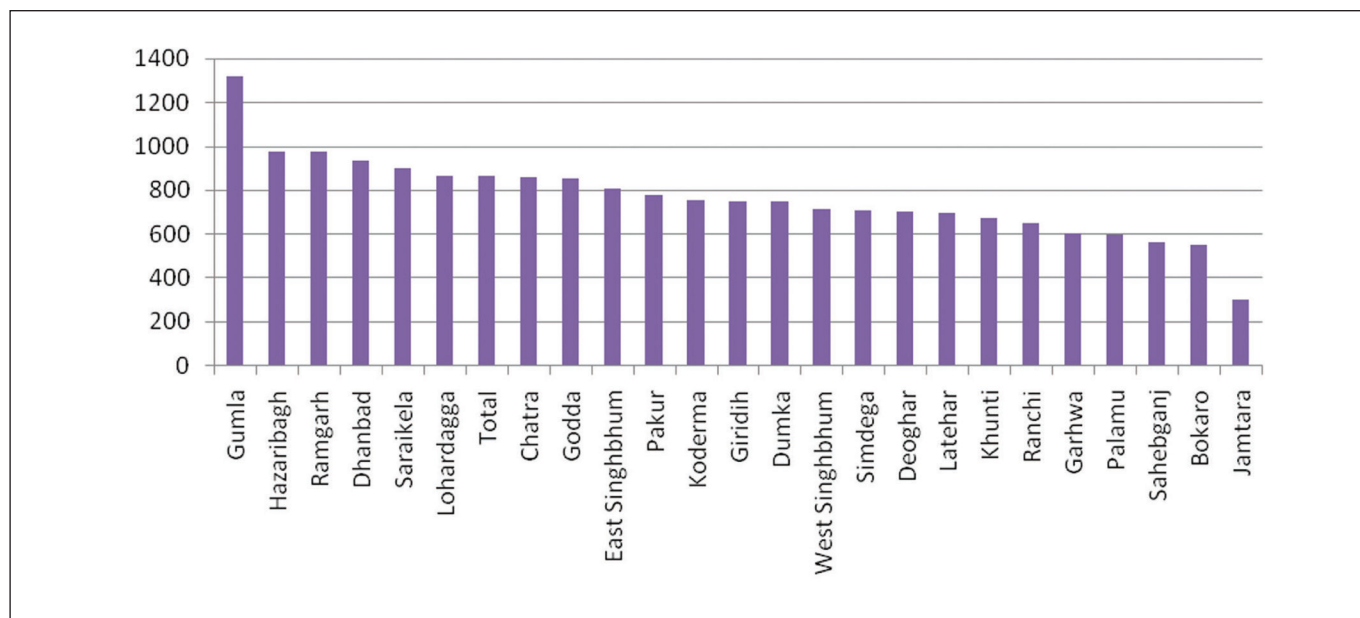
Table 6.9: District wise variation in productivity of food grains

Food Grains		Pulses		Cereals	
High	Low	High	Low	High	Low
Simdega	Pakur	Giridih	Chatra	Lohardagga	Garhwa
Saraikela	Sahebganj	Dhanbad	Latehar	Chatra	Pakur
Gumla	Latehar	Gumla	Garhwa	Saraikela	Latehar
Chatra	West Singhbhum			Bokaro	West Singhbhum

The yield-rate of oilseeds of Jharkhand for the year 2017-18 is only about 7 hundred kg. But there is wide inter-district variation in its productivity. It is more than

13 hundred kg per hectare in Gumla and as low as 3 hundred kg per hectare in Jamtara (Figure 6.7).

Fig 6.7: District wise yield rate oilseed for the year 17-18

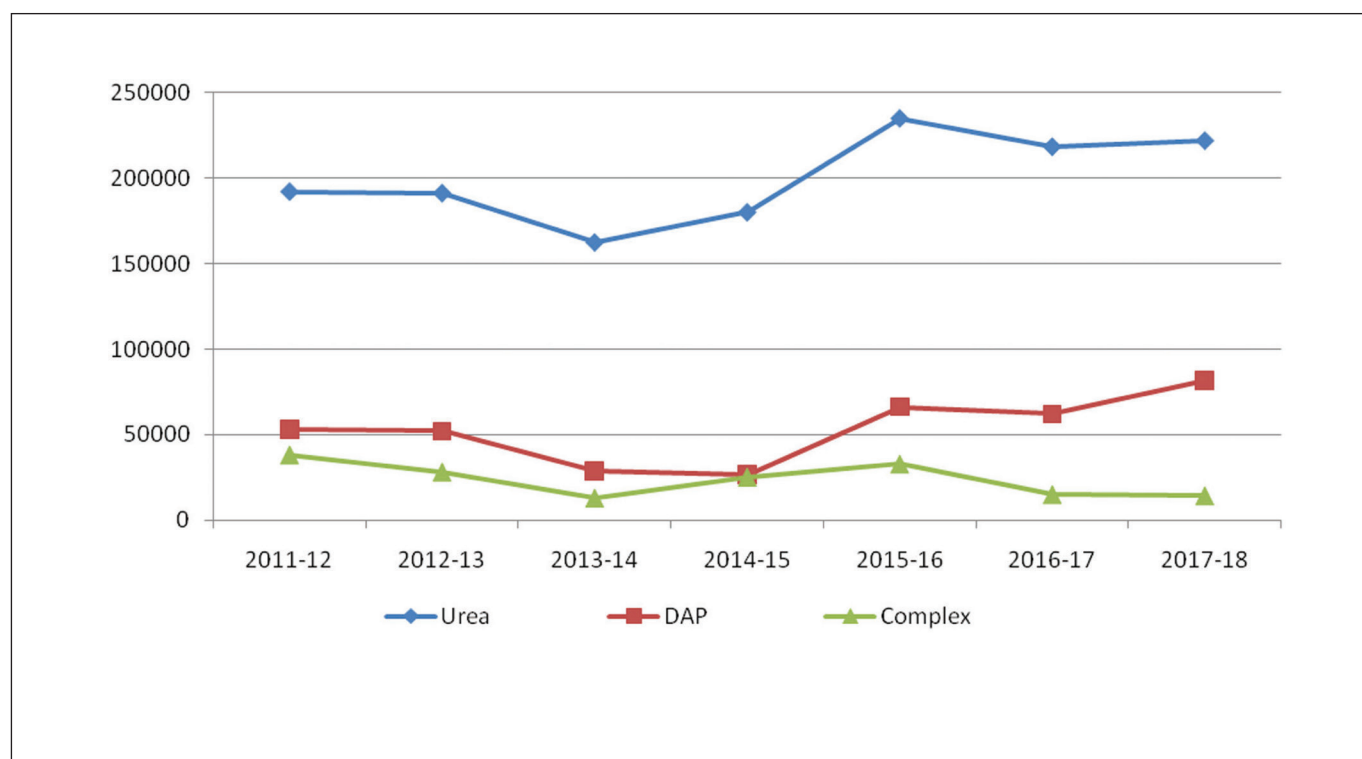


Source: Directorate of Agriculture, Government of Jharkhand

Fertilizers

Consumption of Fertilizer: Fertilizer is one of the major inputs that help in increasing the productivity of the crops. In Jharkhand, the major fertilizers used are Urea, Diammonium Phosphate (DAP), Muriate of Potash (MOP), Complex fertilizer and SSP (Single Super Phosphate). In terms of consumption, Urea and DAP are the two most important fertilizers. Urea accounts for about 69 per cent and DAP about 25 per cent of the total chemical fertilizers consumed in the state. The consumption of complex fertilizers, SSP and MOP account for 4 per cent, 1 per cent and 1 per cent respectively of the total chemical fertilizers consumed

in the state. The consumption of urea and DAP has increased over the years. The consumption of urea has increased at an annual rate of 2.4 and DAP at the rate of 7.4 per cent per annum in the period 2011-12 to 2017-18. About 192 thousand tonnes of urea and 53 thousand tonnes of DAP were consumed in the year 2011-12, their consumption increased to 222 thousand tonnes and 82 thousand tonnes, respectively, in the year 2017-18. The consumption of complex fertilizers, on the other hand, has decreased in this period from about 38 thousand tonnes in the year 2011-12 to 14 thousand tonnes in the year 2017-18 – at an annual rate of about (-) 15 per cent (Figure 6.8).

Figure 6.8: Consumption of Urea, DAP and Complex Fertilizers in the period 2011-12 to 2017-18.

Source: The Directorate of Agriculture, Government of Jharkhand

Supply of Fertilizers: The supply of fertilizers has mostly fallen short of the requirement in the state. This gap between the requirement and supply of fertilizers has decreased over the years, especially since 2015-16. The supply of urea fell approximately 30 per cent short of its requirement till 2014-15, but in the year 2015-16, the supply of urea was more than its requirement and since then the state has received more than 90 per cent

of its requirement. Similarly, the supply of DAP to the state was about 50 per cent of its requirement in the year 2011-12 and 2012-13, which fell to less than 40 per cent in the year 2013-14 and 2014-15. The state received more than 65 per cent of its requirements of DAP in the year 2015-16 and 2016-17 and in the year 2017-18 it received about 80 per cent of its requirement of DAP.

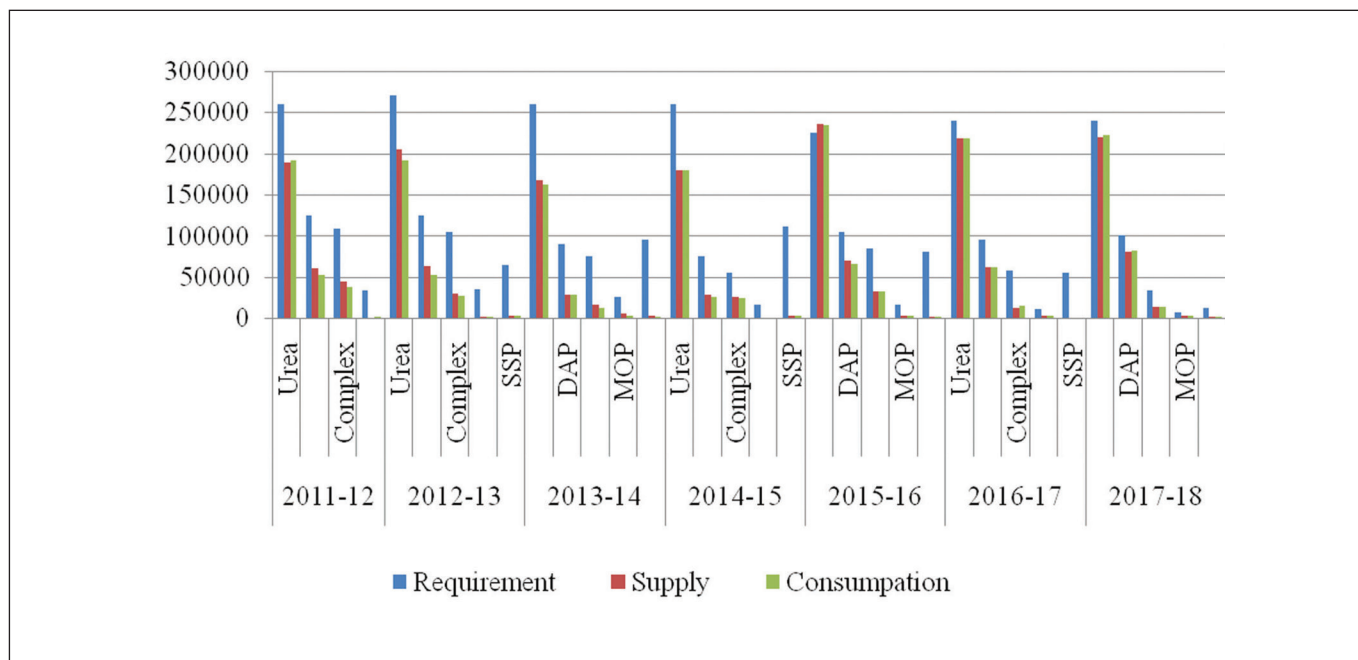
Table 6.10 : Requirement and consumption of fertilizers in Jharkhand in the year 17-18 (in tonnes)

Product	Req.	Supply	Consumption	% of consumption to supply	% Supply to Requirement
UREA	240000	219687	222048	101.07	91.54
DAP	100000	80195	81971	102.21	80.20
MOP	33000	14266	14314	100.34	43.23
COMPLEX	7000	3125	3198	102.34	44.64
SSP	12000	2027	2021	99.70	16.89

Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.9: Total Fertilizer requirement and consumption in Jharkhand from 11-12 to 17-18

(in tons)



Source: Directorate of Agriculture, Government of Jharkhand

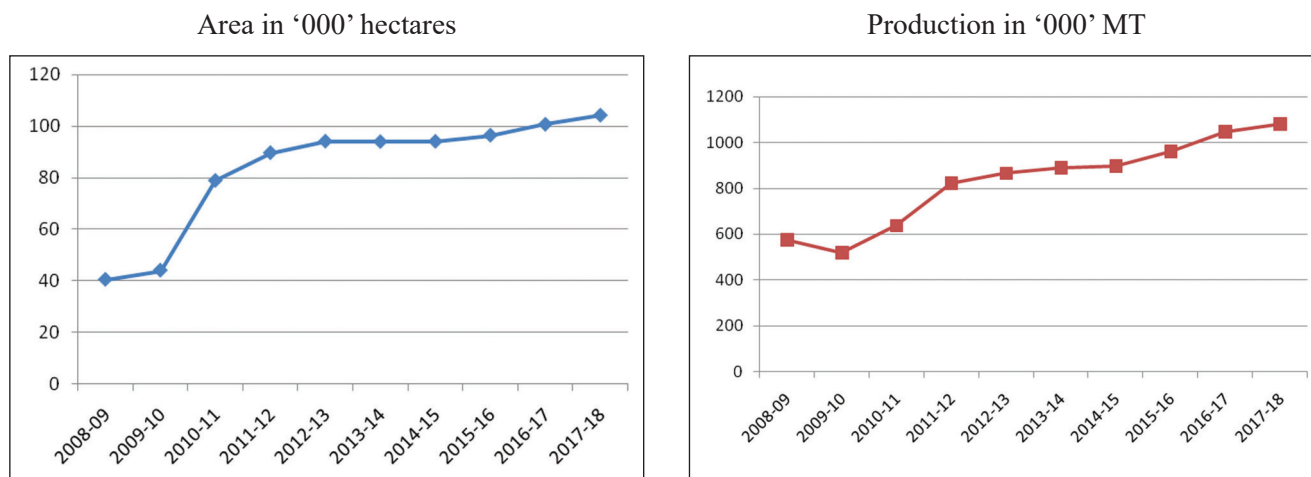
Horticulture

Fruits

In Jharkhand both the area and the production of fruits has increased over the years. According to the department of agriculture, government of Jharkhand, the area covering the different varieties of fruit crops in Jharkhand has increased at an annual rate of 11 per cent, from 40 thousand hectares in 2008-09 to 104 thousand hectares in 2017-18. In the same period the production of fruits has increased at an annual rate of

7.3 per cent from 575 thousand metric tonnes in 2008-09 to 1082 thousand metric tonnes in 2017-18. This shows that the production of fruits has not kept pace with the expansion in the area under their cultivation. The growth in the production of fruits depends on the composition of crops, their gestation period and the yield rates. Different fruit crops have different gestation periods and different yield rates, therefore, the growth in output, to a large extent, depends on the selection of the fruit crop.

Fig 6.10 : The Area and Production of the total fruit crops in Jharkhand during 08-09 to 17-18



Source: The Directorate of Agriculture, Government of Jharkhand

Mango has emerged as the most important fruit crop in this state. It occupies almost half of the area under fruit production. Its output constitutes almost 40 per cent of the total output of the fruit crops. Banana and Jackfruit are the other two important crops in this state in terms of area under cultivation. The area under banana cultivation, however, has decreased in recent years. It was grown on more than 12.5 thousand hectares of land in the year 2015-16 which decreased to 9 thousand hectares in 2017-18. Guava is another major fruit crop in this state. It is grown on about 8 thousand hectares of land, occupying about 8 per cent of the total area under fruit cultivation. The output of guava constitutes almost 8 per cent of the total fruit- production of the state.

In the last three years, the maximum expansion in area and the highest growth in output has taken place in Indian Plum. The area for Indian Plum cultivation in the state has increased at the annual rate of about 41 per cent and its output has increased at the annual rate of 102 per cent. The area under papaya and lime and lemon has increased at the rate of about 22 per cent per annum but their production has increased at the rate of 4.5 and 7 per cent per annum, respectively. The the area under litchi cultivation has increased at an average annual rate of about 9 per cent and its output by 27 per cent per annum in this period. Jharkhand produced 40 thousand metric tonnes of litchi in the year 2015-16 which increased to about 65 thousand metric tonnes in the year 2017-18.

Table 6.11 : Area and production of different varieties of fruit crops

(Area in '000' ha & Production in '000' MT)

Fruits	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Bengal quince	0.52	35.58	0.52	36.21	0.6	38.14
Indian Gooseberry	0.28	1.3	0.28	1.41	0.29	1.49
Guava	8.09	80.04	8.16	88.83	8.32	89.3
Banana	12.52	33.27	9.05	31.62	9.17	32.05
Indian Plum	0.47	2.82	0.64	10.4	0.94	11.61
Jackfruit	12.33	117.46	14.74	124.77	14.72	137.85
Litchi	3.45	40	7.01	47.8	4.12	64.99
Mango	50.41	393.6	50.55	438.54	54.53	435.85
Papaya	1.78	106.69	2.53	109.88	2.66	116.41
Pomegranate	0.01	0.03	0.006	0.009	0.01	0.04
Other Fruits	1.8	102.53	1.7	104.49	1.73	99.34
Lime & Lemon	4.84	47.73	5.55	53.96	7.15	54.59
Total	96.53	961.187	100.78	1047.96	104.3	1081.69

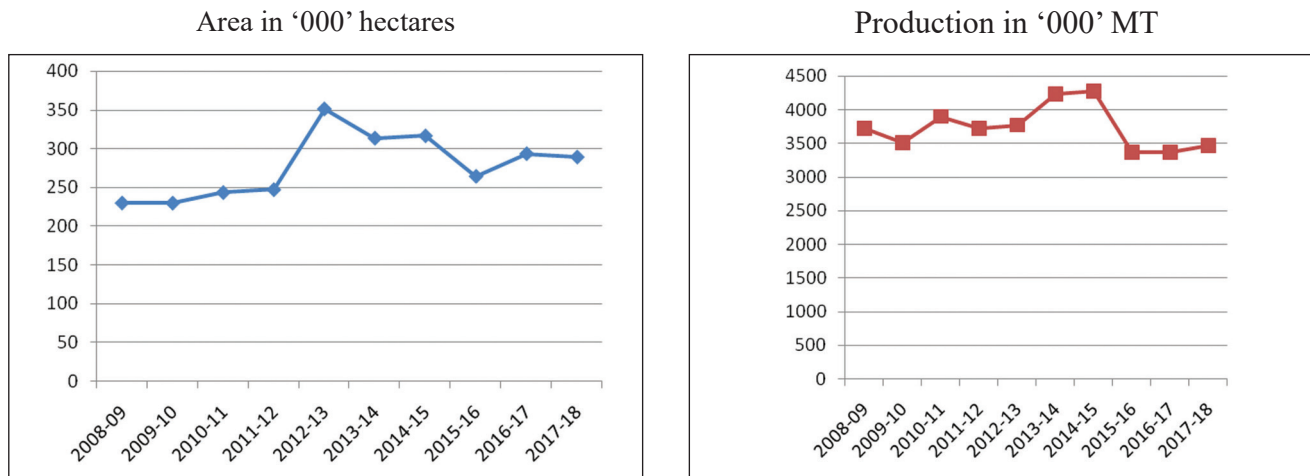
Source: The Directorate of Agriculture, Government of Jharkhand

Vegetables

Vegetables are grown in Jharkhand in large quantities. The output of vegetables caters to the market of the neighbouring states also. Between 2008-09 and 2014-15 the area under vegetable cultivation increased at an annual rate of 5.5 per cent and the output was at the rate

of 2.3 per cent. In the year 2015-16, because of severe drought, the area under vegetable cultivation shrank by 16.6 per cent and the output by 21.2 per cent. The area and output of vegetables has improved since then but it still is yet to achieve the level it had achieved in the year 2014-15.

Fig 6.11 : Area and Production of the total quantity of vegetables in Jharkhand during 08-09 to 17-18



Source: The Directorate of Agriculture, Government of Jharkhand

Though a large variety of vegetables are grown in the state, about 11 of them - potato, onion, ladies' fingers, cabbage, cauliflower, green chilli, tomato, peas, beans

and brinjal are cultivated on about 90 per cent of the area under vegetable cultivation and produces about 90 per cent of the total quantity of vegetables of the state.

Table 6.12: The area and production of the different varieties of vegetables in Jharkhand

(Area in '000' ha & Production in '000' MT)

Vegetables	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Beans	10.37	154.55	12.62	226.71	12.91	191.17
Bitter gourd	1.42	12.31	1.6	13.19	1.59	13.26
Bottle gourd	1.63	13.96	1.55	13.33	1	15.43
Brinjal	22.96	219.65	80.04	240.99	80.08	252.59
Cabbage	30.5	475.99	19.32	322.45	19.06	326.22
Capsicum	18.63	17.34	2.95	32.54	2.98	33.03
Carrot	0.65	6.96	1.05	11.64	1.05	10
Cauliflower	20.7	258.64	21.18	292.17	21.92	299.64
Green Chilli	11.99	144.84	14.79	180.64	14.54	253.3
Cucumber	0.37	25.69	1.67	18.55	1.41	19
Pumpkin	0.27	3.6	0.77	18.56	0.98	23.5
Okra	32.86	452.12	4.83	101.46	5.38	92.14
Onion	14.86	254.62	17.48	292.58	17.16	289.04
Pea (Green)	13.84	192.21	15.19	341.88	15.72	347.14
Potato	44.93	627	52.72	668.65	48.21	690.22
Radish	1.04	11.73	2.81	39.84	2.83	46.91
Tomato	18.15	230.19	19.74	231.45	20.1	265.26
Other Vegetables	19	272.35	23.15	323.25	22.2	307.28
Total	264.21	3373	293.53	3370	289.2	3475.2

Source: The Directorate of Agriculture, Government of Jharkhand

Livestock and milk production

The production of milk, eggs and meat in the State has increased at an annual rate of 4.1, 4.4 and 2.6 per cent respectively during the period 2009-10 to 2017-18. During this period, the production of milk in Jharkhand increased from 1463 thousand tons to 2015.65 thousand

tons that of eggs increased from 3930 thousand tons to 5531.08 thousand tons and the production of meat has increased from 46.76 thousand tons to 57.55 thousand. The production of milk, eggs and meat has shown an upward trend since the last nine years from 2008-09 to 2017-18 (Figure 6.11)

Table 6.13: Production of Milk, Eggs & Meat in Jharkhand from 08-09 to 17-18

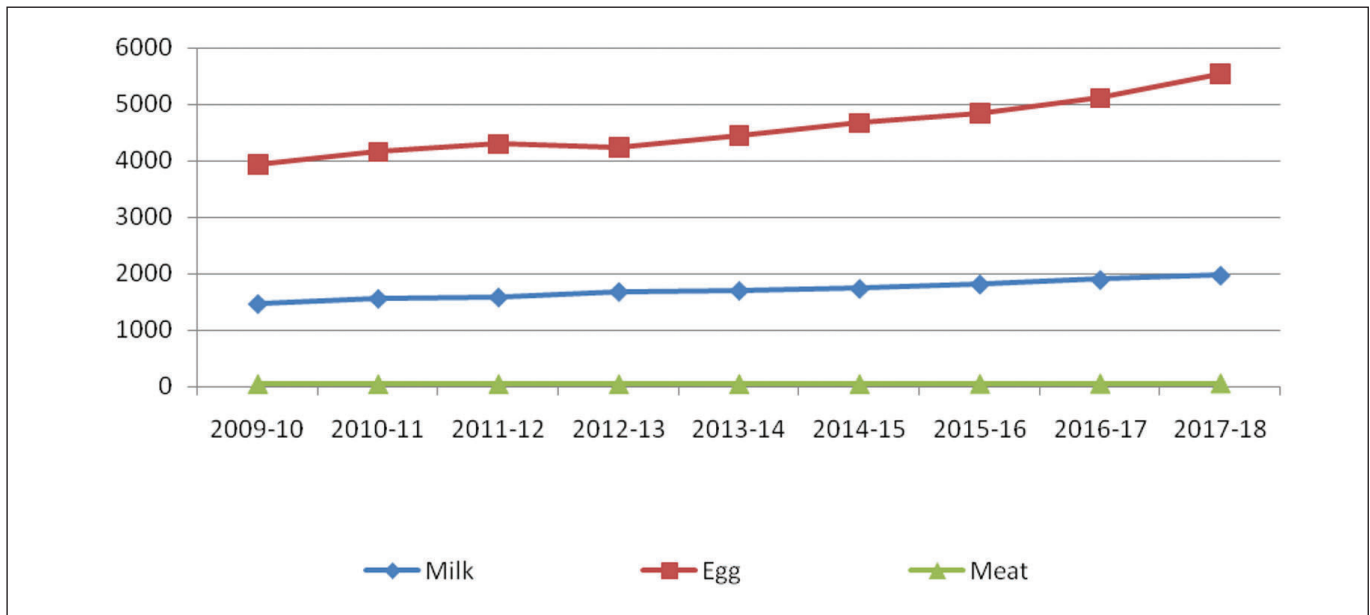
(Thousand MT)

Years	Milk	Eggs	Meat
2009-10	1463	3930	46.76
2010-11	1555.64	4153.16	43.76
2011-12	1580.98	4294.48	45.94
2012-13	1679.59	4238.95	44.52
2013-14	1699.83	4444.99	45.47
2014-15	1733.73	4663.17	47.87
2015-16	1812.38	4832.84	50.71
2016-17	1893.8	5103.37	54.73
2017-18	2015.65	5531.08	57.55

Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.12 : Production of Milk, Eggs & Meat in Jharkhand from 08-09 to 17-18

(Thousand MT)



Source: The Directorate of Agriculture, Government of Jharkhand

Fishery

Though the state does not have perennial sources of water, it has done very well in the production of fish. The production of fish in the state has grown at an annual rate of 14.5 per cent in the period 2012-13 to 2017-

18. The fish production increased from 96.6 thousand metric tons in the year 2012-13 to 190 thousand tons in the year 2017-18. The production of fish seed in this period increased at an annual rate of 61.4 per cent. It increased almost ten- fold from 9446 lakhs in 2012-13

to 103300 lakhs in 2017-18. The number of fish seed growers has also increased at the annual rate of 21.7 per

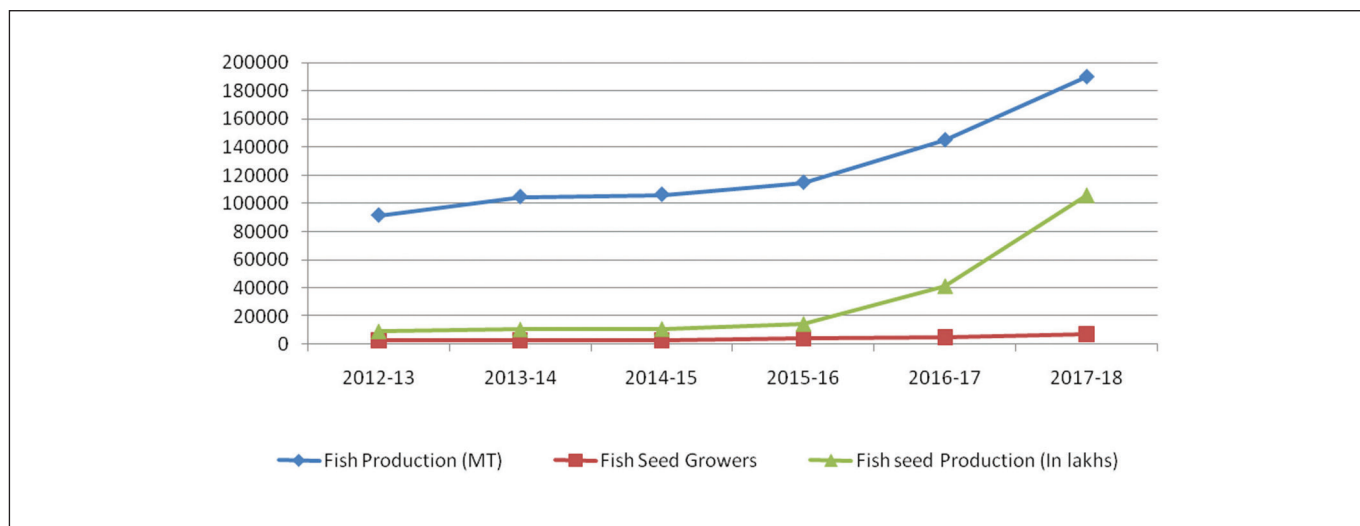
cent in this period. It increased from 2754 in 2012-13 to 7364 in 2017-18.

Table 6.14: Fish Production, Fish Seed Growers & Fish seeds Production from 08-09 to 17-18

Years	Fish Production (MT)	Fish Seed Growers	Fish seed Production (In lakhs)
2012-13	96600	2754	9446
2013-14	104820	3052	10645
2014-15	106430	2828	10833
2015-16	115000	4500	16196
2016-17	145142	4925	41500
2017-18	190000	7364	103300

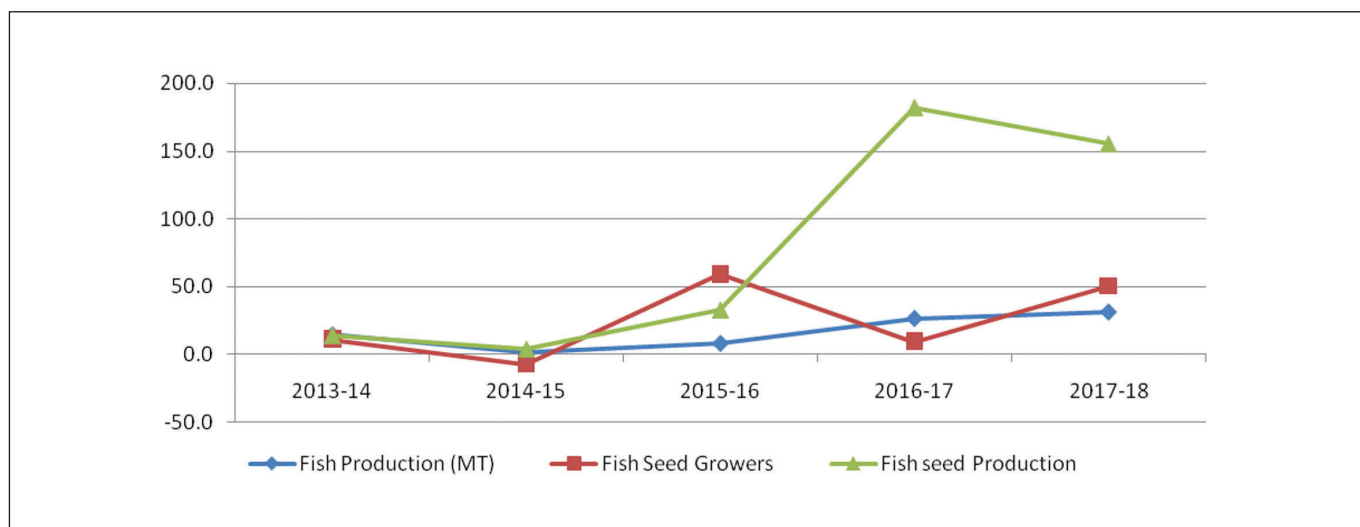
Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.13 : Fish Seed Growers, Fish & Fish seed Production from the year 12-13 to 17-18



Source: The Directorate of Agriculture, Government of Jharkhand

Fig 6.14 : Growth in the production of Fish, Fish seed & number of Fish Seed Growers between 12-13 & 17-18



Source: Directorate of Agriculture, Government of Jharkhand

Schemes and Initiatives for Agriculture

The government of Jharkhand has successfully taken the following initiatives for the development of the agriculture and allied sectors.

- **Exchange, Distribution and Seed Production**– The scheme provides seeds to the farmers for the kharif, rabi, and the other cropping seasons. Till November 2018 in the financial year 2018-19, 109136.31 qtl. seeds of different crops have been distributed among farmers in the Kharif season.
- **Krishi Mela, Workshop, Exhibition, Training, Tour & Extension** –The scheme aims to create an awareness in the agricultural activities, thereby increasing the agricultural output. During 2018-19 ₹ 1000.00 lakh has been provisioned under this scheme. Under this scheme the state, district and block level workshops have been organised. A three-day intensive workshop – Prakhand Krishi Choupal has been organized in all the 24 districts.
- **Vishesh Fasal Yojna**–The objective of the scheme is to increase the production of special crops like Rajma, Til, Moong fali and Soyabean. Vishesh Fasal Yojna has been implemented in the state since 2017-18. During the period of 2018-19 Rs. 2000 lakhs have been provisioned with a physical target of 32421 ha. Till date, 18510 ha have been covered with the financial achievement of Rs. 986.250 lakh.
- **Single Window Centre** –This scheme aims to provide all the benefits related to the agricultural schemes and to provide technical support to the farming community at their door step. For this purpose, 200 Single Windows Centre have been established during 2016-17 & 2017-18. Currently, the establishment of 60 single Window Centre is under process with a financial target of Rs. 2600.00 lakh, which covers recurring and non-recurring expenditure of 260 Single Window Centres.
- **Conversion of Fallow Land into Cropped Area Scheme** – From 2014-15 to 2016-17 2.60 Lac hectare fallow land has been converted into cropped areas. During 2017-18, 95514-hectare fallow land has been converted in a similar manner. Under this scheme for the period of 2018-19, ₹ 1999.998 lakh has been provisioned with a physical target of 74074 ha. Till date, 34082 ha have been covered with the financial achievement of Rs. 303.58973 lakh.
- **Double Cropping Rice Fallow Scheme** - During the period of 2017-18. 59147 hectares of rice fallow area has been brought under cultivation of pulses and oilseeds. The total expenditure of the scheme during 2017-18 has been Rs. 1073.24910 lakh. For the next year a sanction order with a provision of Rs. 3200.00 lakh is under process.
- **Interest Subvention** - Agriculture is a dominant sector of our economy and credit plays an important role in increasing the agricultural production. The availability and access to adequate, timely and low-cost credit from institutional sources are of great importance, especially to the small and marginal farmers. Under this scheme, an additional 3% interest subvention benefit will be given to those farmers who repay their short-term crop loans promptly before the due date. Hence, the farmers will get crop loans at the interest rate of 1% per annum only. For the next year, an allocation of Rs. 2000.00 lakhs has been provisioned for this scheme.
- **Establishment and Strengthening of Agriculture - Laboratories** - Different types of quality inputs are used in the agricultural operations such as fertilizers, pesticides, bio-pesticides, micronutrients etc. In order to ensure the supply of quality inputs, the State Quality Control Laboratories of fertilizer, Seed, and Pesticides will be strengthened. Similarly, Soil Health Card is an important tool to know the actual quantity of the fertilizers required for a specific crop. Soil Health Card scheme is running in the state to cover each and every farmer of the state. So the strengthening of Soil Testing Laboratories will be an important part of this scheme. During 2017-18 against the financial target of Rs. 221.11026 lakh, Rs. 53.19872 lakh has been utilised under this scheme. Furthermore, Rs. 300.00 lakh has been provisioned for the year 2018-19. For this purpose the fund has been allocated to the district/concerned laboratory.

- **Pond Reconstruction Scheme:** Under this scheme the total number of 2000 government tanks/private tanks up to 5 acres is to be renovated to provide additional irrigation potential and stop the run-off loss of rainwater. The state provides 90 per cent subsidy and beneficiary contributes 10 per cent of the total project-cost of renovation. Till date, a total number of 1121 government/private ponds have been renovated under this scheme.
- **Jalnidhi Scheme:** The aim of this scheme is the construction of a total of 1353 water harvesting structures (percolation tank) and 1354 deep boring tube wells. In this scheme the state provides 90 per cent subsidy and the beneficiary contributes 10 per cent of the total project cost. During the current financial year, till date 869 percolation tank/deep boring wells have been constructed with the help of this scheme.
- **Mechanization of agriculture** is being achieved through the establishment of 'Agriculture Implement Bank' in selected villages under the Sub-mission on Agricultural Mechanization (SMAM). The scheme targets towards the establishment of farm machinery banks by the co-operative societies of farmers, a self-help group of farmers, FPOs etc in the selected villages of the state. This encourages the members to take up appropriate mechanized operations and also get employment. Hence, the Central and State Government provide 80 per cent subsidy on purchase of different farm machinery.
- **Distribution of Pump sets** to the small and marginal farmers/self-help groups/ Mahila Sakhimandals/ farmers groups - for multi-cropping. This will lead to a less dependency on

the monsoon and irrigation for a small unit of the agricultural field of the farmers. For this the state provides a 90 per cent subsidy on the purchase of 1.5-3.0 hp pump sets with 200 feet HDPE Pipe (63-75mm). In the current financial year 11267 pump sets out of 28000 of the total targets, have been purchased by the small and marginal farmers/self-help groups.

Conclusion

The agriculture sector has sustained many developments despite the shortage of rainfall during the months of June to September. Despite this the production and yield of the major Kharif crops like paddy, arhar, moong and groundnut has seen a significant improvement. Also, a substantial increase was seen in the production of Rabi crops like maize, masoor, peas, and linseed. In spite of this major challenge the state is improving its productivity. This can be continued through ensuring the improvement in soil by the use of manures and fertilizers, the use of high-quality seeds, improving the irrigation facility, gradual mechanization of agriculture and encouraging the skill development in the farmers. For this purpose, the ministry of agriculture, government of Jharkhand has taken some steps by implementing schemes like Krishi mela, Single, window centre, Establishment of Agriculture Laboratories, Jalnidhi scheme and Sub-mission on Agricultural Mechanisation (SMAM) to name a few. Another challenge for the state is to rescue the post-harvest losses which can be done by the development of adequate storage facility. Developing the states connectivity between the rural and urban areas will also be helpful in this regard. Educating and informing the farmers about the various schemes initiated by the government will also help in the development of the agricultural sector in the state.

VII

FOOD SECURITY



Malnutrition, starvation and hunger deaths must become a rare phenomenon for the 21st century babies. Thus, food security is the means in achieving the stated objective. Food security is always referred as a situation when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. In Jharkhand, the inherited low per capita income and the existence of a significant proportion of poor people have made the task of ensuring food security a big challenge. The Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand is quite busy in tackling it and it is committed to ensure food security in the state.

Agriculture is the back bone of food security and in terms of the production of vegetables, the state enjoys a healthy surplus and exports it to other agriculture-dominated states like Bihar, Odisha and West Bengal every year. The Department of Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand is working day and night to ensure food security in the state by planning and executing various schemes in the state. In the FY 2017-18 more than Rs. 800 crore subsidies were allocated to PDS in the state. Among the major food security programmes running in the state, AAY to Rs. 164.85 crores, PHS to Rs. 571.77 crores and Salt Distribution Scheme to Rs. 57.11 crores of subsidies were allocated during FY 2017-18. At present all together fourteen welfare programmes are running effectively in the state to provide a continuous supply and easy access to food grains and other materials to the targeted beneficiaries in the state. To supplement this the state is maintaining 255 depots with a storage capacity of more than 2.18 lakhs MT out of which more

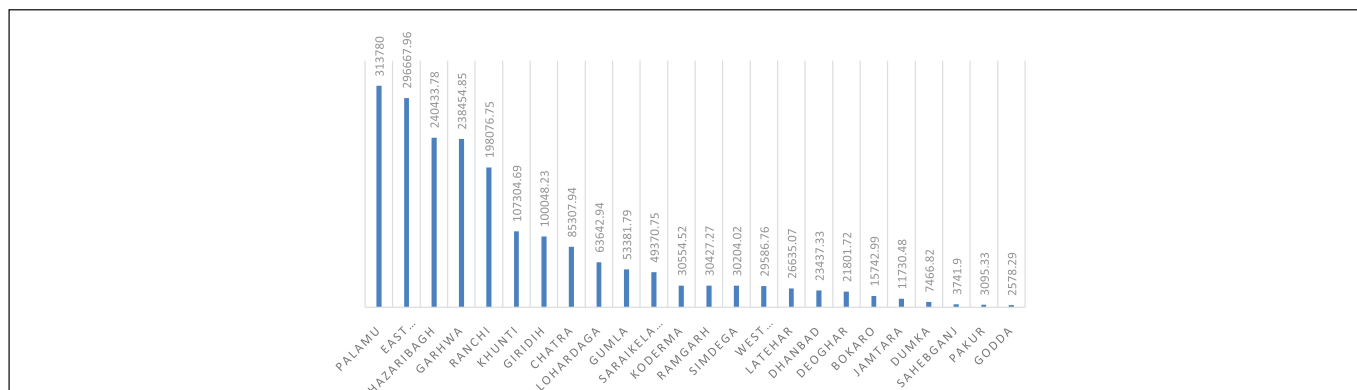
than 83% is occupied by the current stocks of rice, wheat, salt and sugar. The state has a stock of rice and wheat which is about 150 thousand MT and 23.8 thousand MT respectively. To ensure an easy access to food grains the state has been maintaining more than 25 thousand 8 hundred PDS dealers in the state. It has around 57 lakh ration card holders which covers more than 2.62 crore members in the state. About 2.15 crore members are now UID seeded and more than 89% of them are UID verified as well. In the process of fixing the leakages in the PDS schemes more than 4.38 lakhs double counted UIDs have been eliminated in the state.

The present chapter in the light of the four pillars of food security, i.e. availability, accessibility, utilization and stability in supply, evaluates the status of Jharkhand for the current fiscal year in contrast with the previous years' progress.

Storage and Management of Food grains

In Jharkhand, the Jharkhand State Food and Civil Supplies Corporation (JSFC) is responsible for lifting the food grains from the FCI depots present in the state. Food grains are delivered under the door step-delivery system from JSFC godowns to the PDS/fair price shops, from where they are distributed among the beneficiaries. The procurement of paddy is one of the important tasks of these agencies in the state. Till April 2018, a total of more than 19.83 lakh quintals of paddy has been procured in the state and Figure-7.1 gives the district wise details of the procurement of paddy. Palamu with 3.13 lakh quintals and East Singhbhum with 2.96 lakh quintals are at the first and second position respectively whereas Godda with 2.57 thousand quintals stands last in this list.

Figure-7.1: Procurement of paddy in quintals (till 17-04-2018)

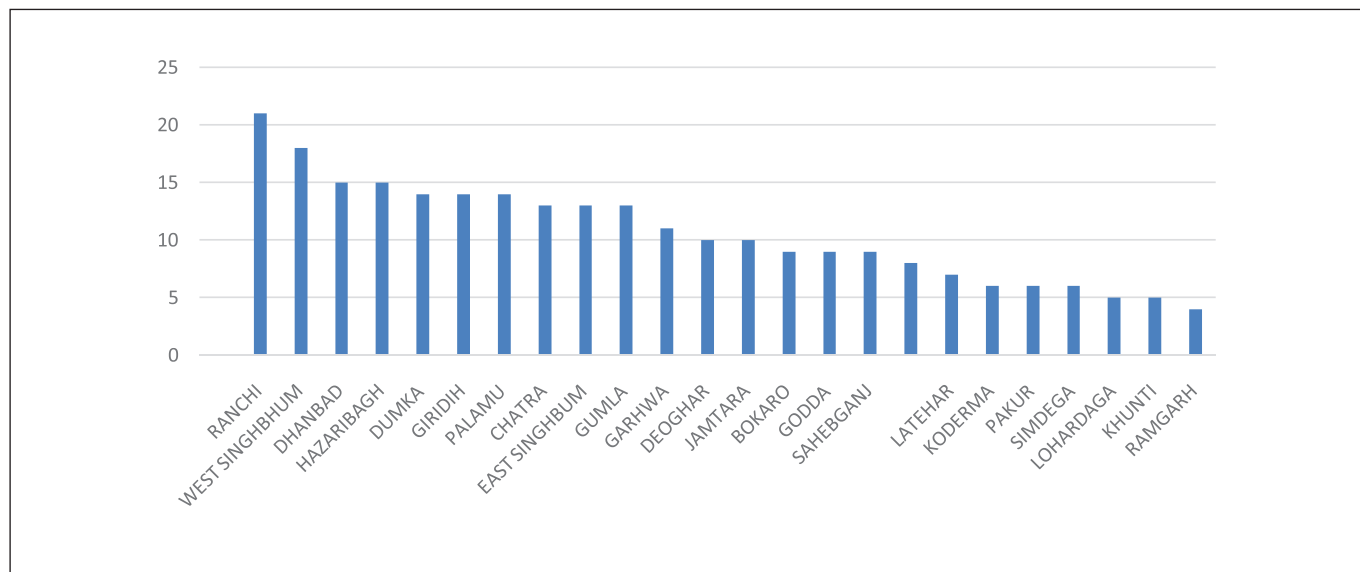


Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Godown and storage centres are crucial to food security as they help in ensuring a continuous supply of food grains. At present Jharkhand has a total of 255 fully functional depots with a storage capacity of more than 2.18 lakhs MT of food grains. The maximum number of depots are in Ranchi (21) followed by West Singhbhum

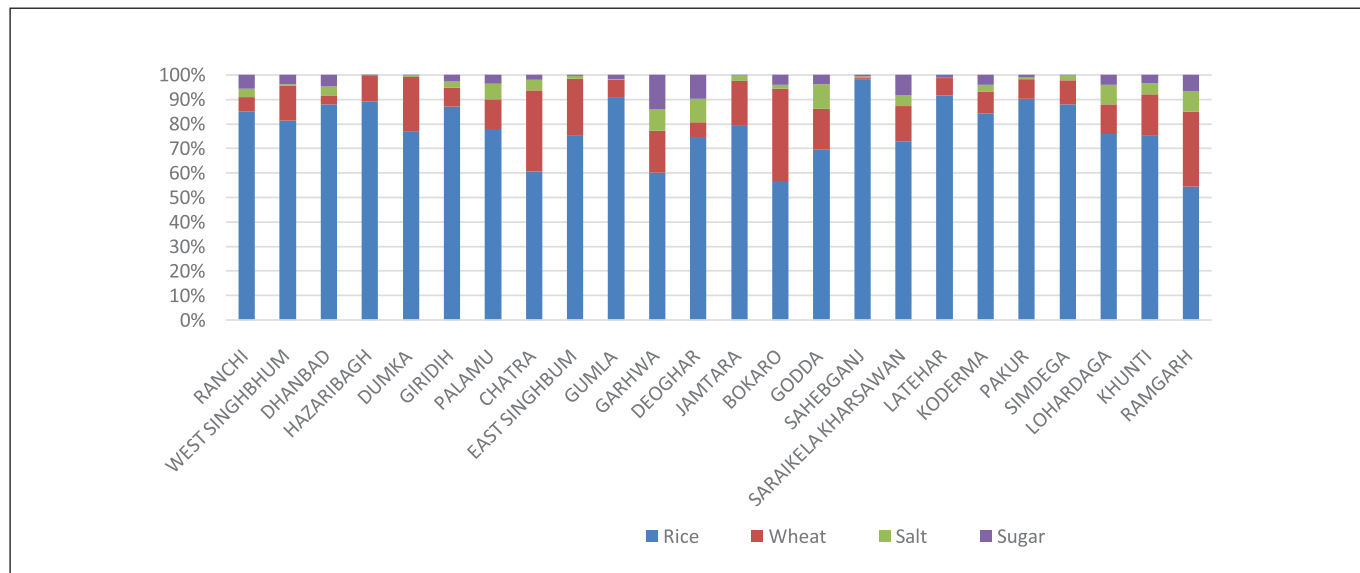
(18), Dhanbad and Hazaribagh (15) at the second and third place. Figure-7.2 shows the district-wise number of depots in the state. Figure-7.3 shows the proportional composition of the stock of rice, wheat, salt and sugar in the different districts of Jharkhand and it is clear that the proportion of rice is the maximum in all the districts.

Figure-7.2: Total number of Depots as of 24-12-2018 (District-wise)



Source: https://aahar.jharkhand.gov.in/depot_masters/depotStock

Figure-7.3: Proportional Composition of the Stock of Rice, Wheat, Salt and Sugar (District-wise)



Source: https://aahar.jharkhand.gov.in/depot_masters/depotStock

As on the 24th of December 2018, the depots in the state have a stock of more than 1,49,713.54 MT of rice, 23,843.30 MT of wheat, 4,586.98 MT of salt and 4,846.60 MT of sugar to meet the requirements of various welfare schemes in the state. Thus more than

83.73% of the existing storage capacity is currently occupied by the current stocks. Table-7.1 gives district-wise details of the depots with their storage-capacity and the current stock of various food grains.

Table-7.1 : District-wise Current Stock Status of Depot. (As of 24-12-18)

Name	Total no. of Depots	Depot capacity	Rice	Wheat	Salt	Sugar
		(MT)	(Kg.)	(Kg.)	(Kg)	(Kg.)
BOKARO	9	5050	2103957	1402110	56629	153699
CHATRA	13	9220	4242203	2317408	310241	136809
DEOGHAR	10	7000	2006001	169466	255608	266568
DHANBAD	15	4261	17196980	734191	693370	948513
DUMKA	14	43570	13532914	3961269	125911	29082
EAST SINGHBUM	13	6650	16749119	5062663	272342	102342
GARHWA	11	4050	2006779	568349	290525	474014
GIRIDIH	14	6750	7677870	695304	219172	240391
GODDA	9	5500	1413369	341295	202819	79413
GUMLA	13	6850	6850479	516478	20500	141266
HAZARIBAGH	15	21000	7987075	968527	8273	7007
JAMTARA	10	9530	1817591	412314	52838	3112
KODERMA	6	1950	9385168	991835	307100	465325
LATEHAR	7	2512	6403481	500123	5956	75420
LOHARDAGA	5	4000	1756546	278111	187623	93551
PAKUR	6	23800	8191163	733984	60550	95070
PALAMU	14	2830	7193385	1130075	577162	345081
RANCHI	21	14200	5759212	401404	230418	392398
SAHEBGANJ	9	4600	13156347	81673	88217	97913
SARAIKELA KHARSAWAN	8	5700	3561762	697540	210370	411459
SIMDEGA	6	5350	6198570	683692	142120	22750
WEST SINGHBHUM	18	10450	1507643	260139	14075	70405
KHUNTI	5	2000	2232918	494205	133046	100484
RAMGARH	4	11700	783012	441149	122124	94531
Total	255	218523	149713544	23843304	4586989	4846603

Source: https://aahar.jharkhand.gov.in/depot_masters/depotStock

Subsidies to Public Distribution system (PDS)

Providing nutritious food to the poor free of cost or at negligible price is not possible without government subsidies. Accordingly, the government of Jharkhand has made sure that funds will not be the problem in ensuring food security in the state. In FY 2011-12, the

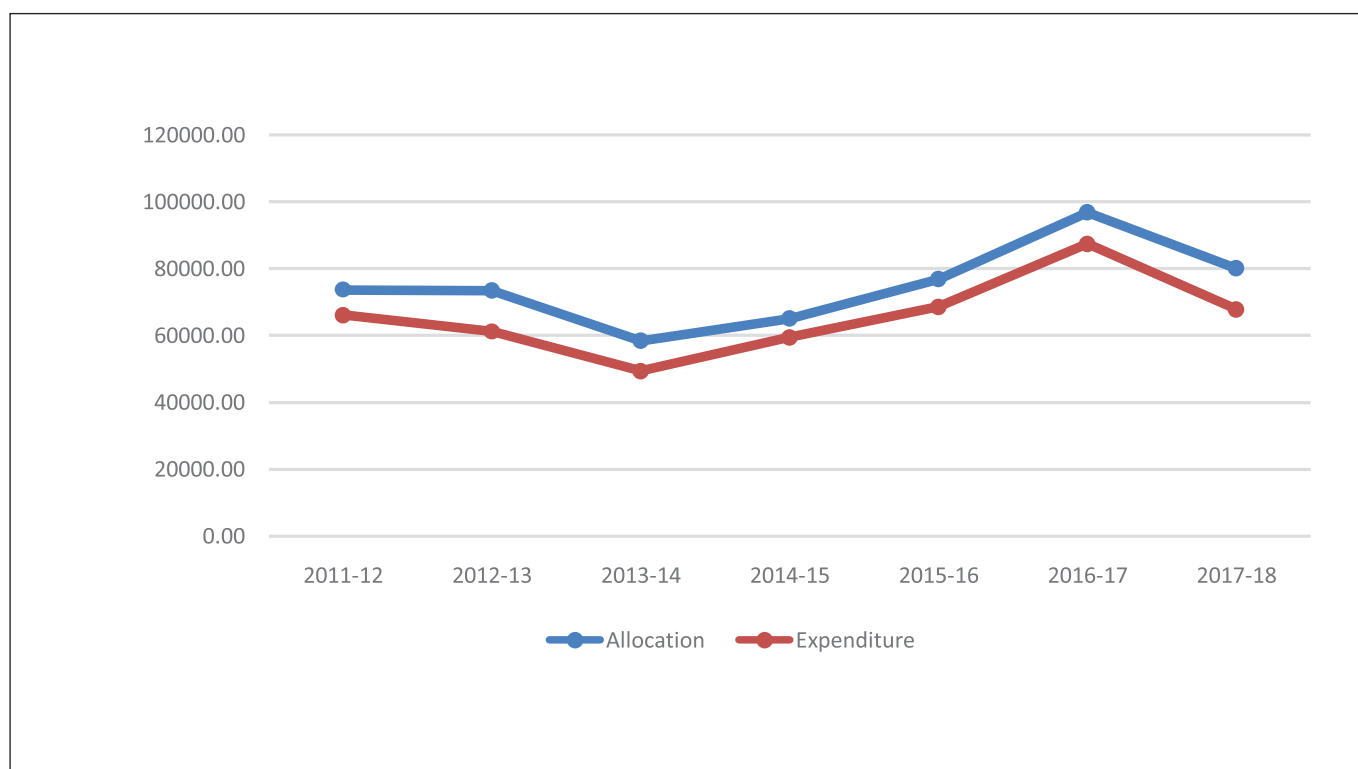
total allocation was Rs. 737.44 crores which increased to 800.50 crores in FY 2017-18 with an average rate of more than 8.5% per annum. An annual-trend-analysis of the allocation and expenditure of subsidies for PDS is given in Figure-7.1. The utilization of funds has consistently remained at more than 80% which is quite appreciable (Table-7.1).

Table-7.2 : Amount of Subsidy for the Public Distribution System (PDS) in Rs. Lakhs

Financial Year	Allocation	Expenditure	Utilization in %
2011-12	73744.51	66102.81	89.64
2012-13	73401.02	61282.55	83.49
2013-14	58426.85	49398.68	84.55
2014-15	65057.88	59453.03	91.38
2015-16	76962.30	68641.90	89.19
2016-17	96885.00	87431.14	90.24
2017-18	80050.01	67823.10	84.73

Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Figure-7.4 : Trends in the Allocation & Expenditure of Subsidies for PDS in Rs. Lakhs



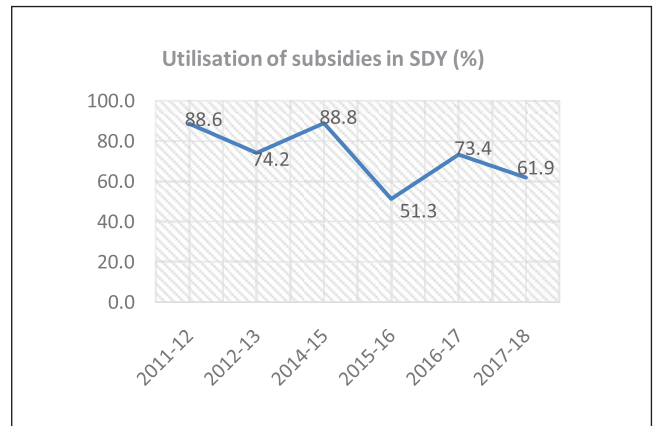
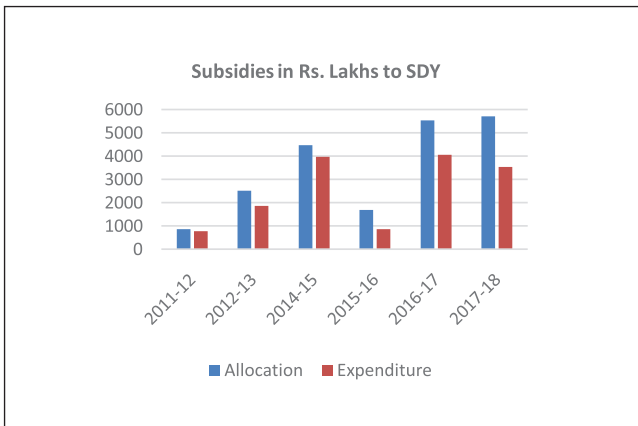
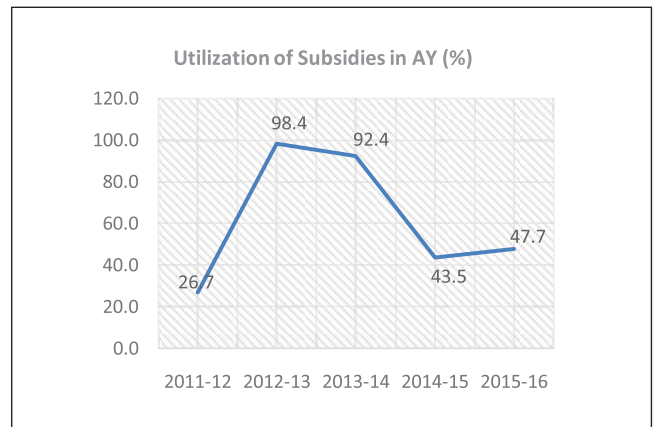
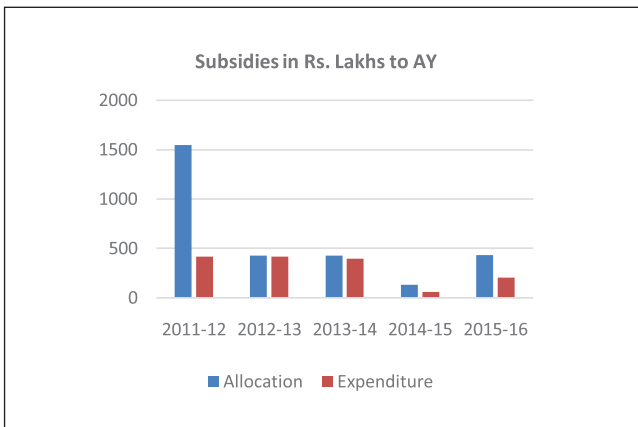
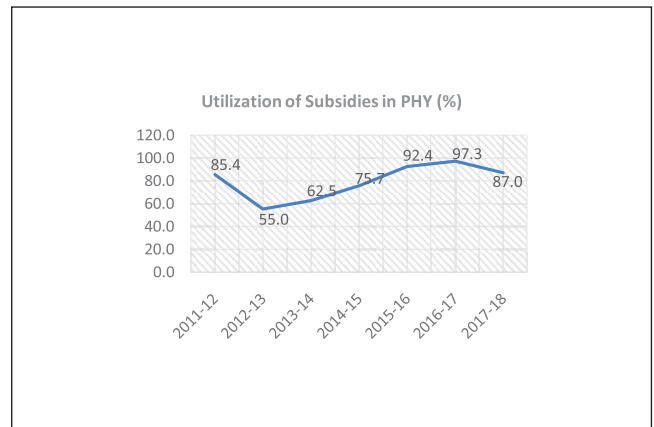
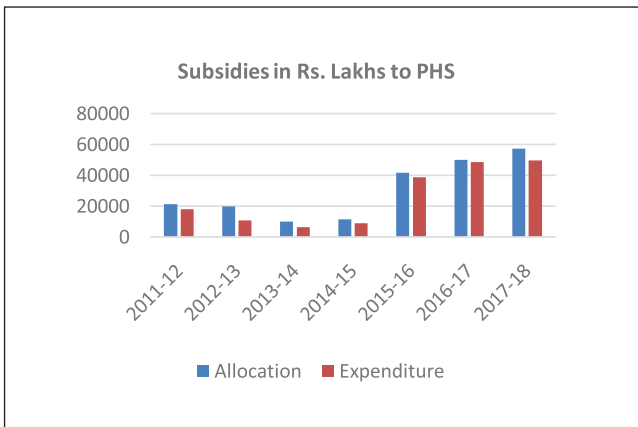
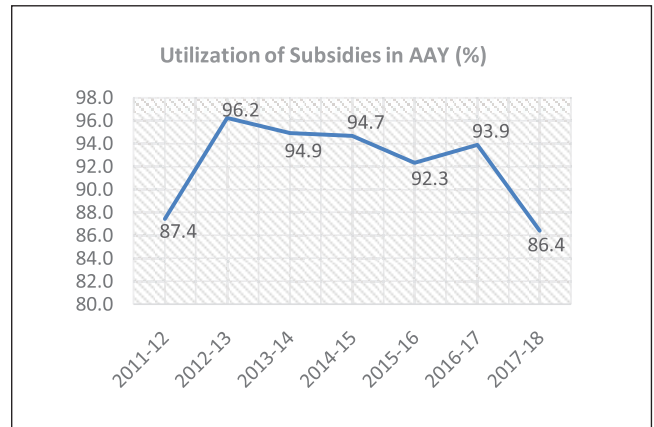
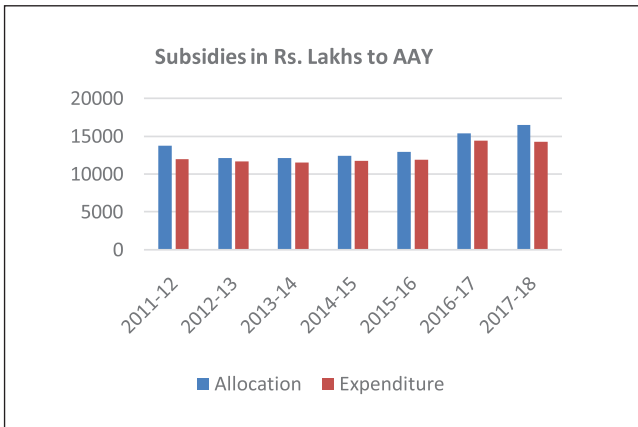
Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Subsidies to some of the Popular Food Security Schemes

Schemes like AAY, Annapurna Yojana, Priority Household Scheme, Salt Distribution scheme, etc. are the key players in improving the food-security. Accordingly, these schemes have been awarded with sufficient funds in terms of subsidies in the state. Figure-7.2: shows the amount of subsidies allocated

with their utilization percentage for Antyodaya Ann Yojana (AAY), Primary Household Yojana (PHY), Annapurna Yojana (AY) and Salt Distribution Yojana (SDY) from FY 2011-12 to 2017-18. In case of AAY the utilization percentage has remained between 86% to 96%. The utilization-rate in PHY is currently 87% and in the last financial year it was more than 97%. Similarly, the utilization-rate for AY and SDY is 47% and 61% respectively in the current financial year.

Figure-7.5 : Allocation and Utilization of Subsidies to various schemes (amount in Rs. Lakhs)



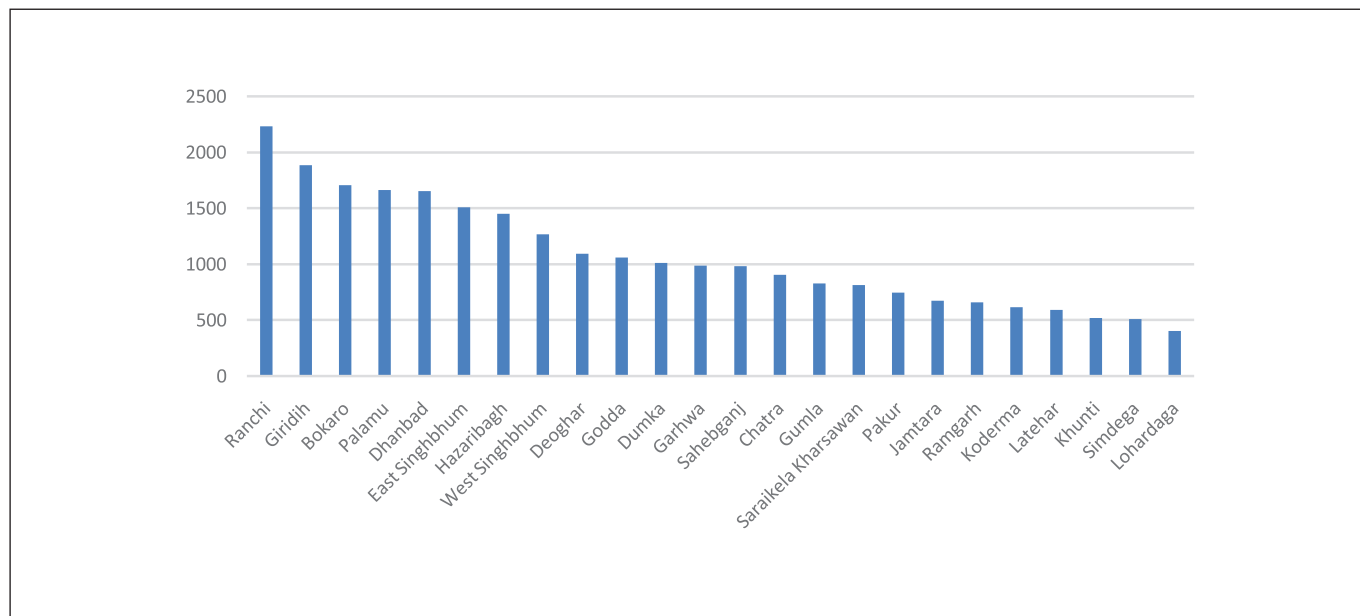
Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Public Distribution System (PDS)

This system ensures that the beneficiaries of food security schemes must enjoy easy access to food grains, sugar, salt, K.Oil, etc. and that too at their door steps. PDS runs through PDS dealers who distribute food grains and other materials at their fair price shops to the beneficiaries as per the eligibility of their respective ration cards. Jharkhand has a very wide network of PDS dealers and fair price shops. There are 25,820 PDS

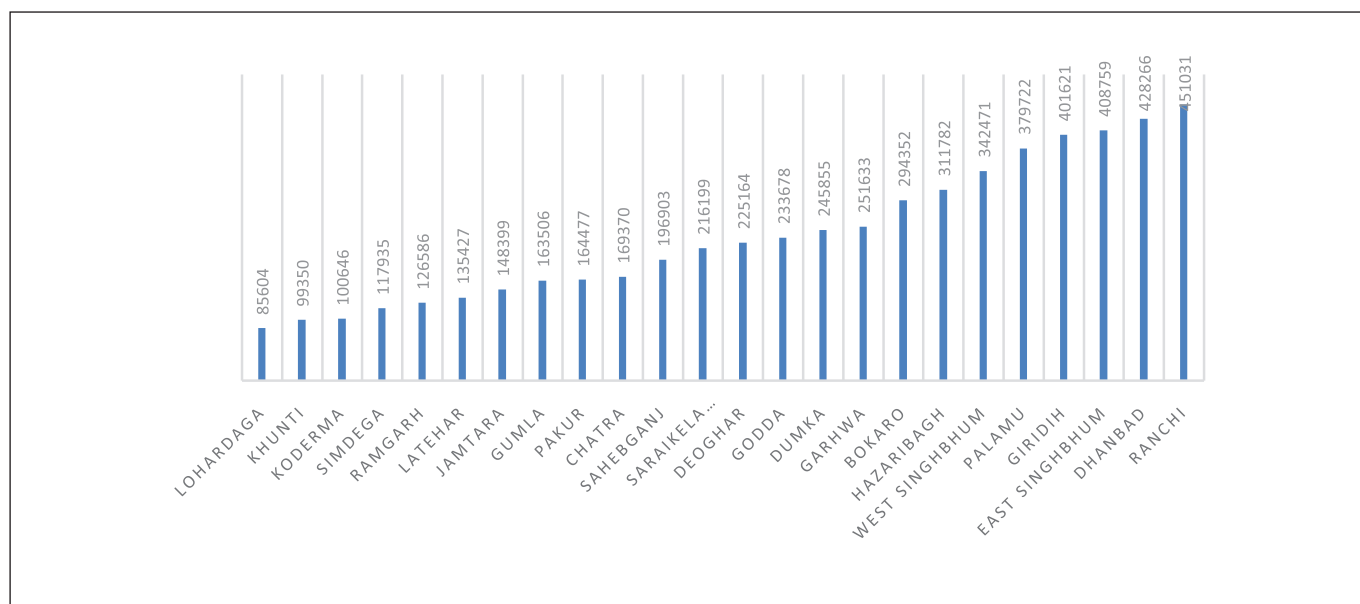
dealers in the state which covers almost all the eligible beneficiaries in the state. Ranchi tops the list with 2,233 dealers and Lohardaga is the last with 406 dealers among the district-wise list of PDS dealers (Figure-7.2). These numbers are quite consistent in contrast with the district-wise distribution the total number of card holders in the state where Lohardaga with 85,604 has the minimum number and Ranchi with 4,51,031 has the maximum number of card holders. In Jharkhand, the total number of card holders is 56,98,736 (Figure-7.3).

Figure-7.6 : Number of PDS Dealers (District-wise) as on Dec. 2018



Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Figure-7.7 : Total number of Ration Card holders (District-wise) as on 10-12-2018



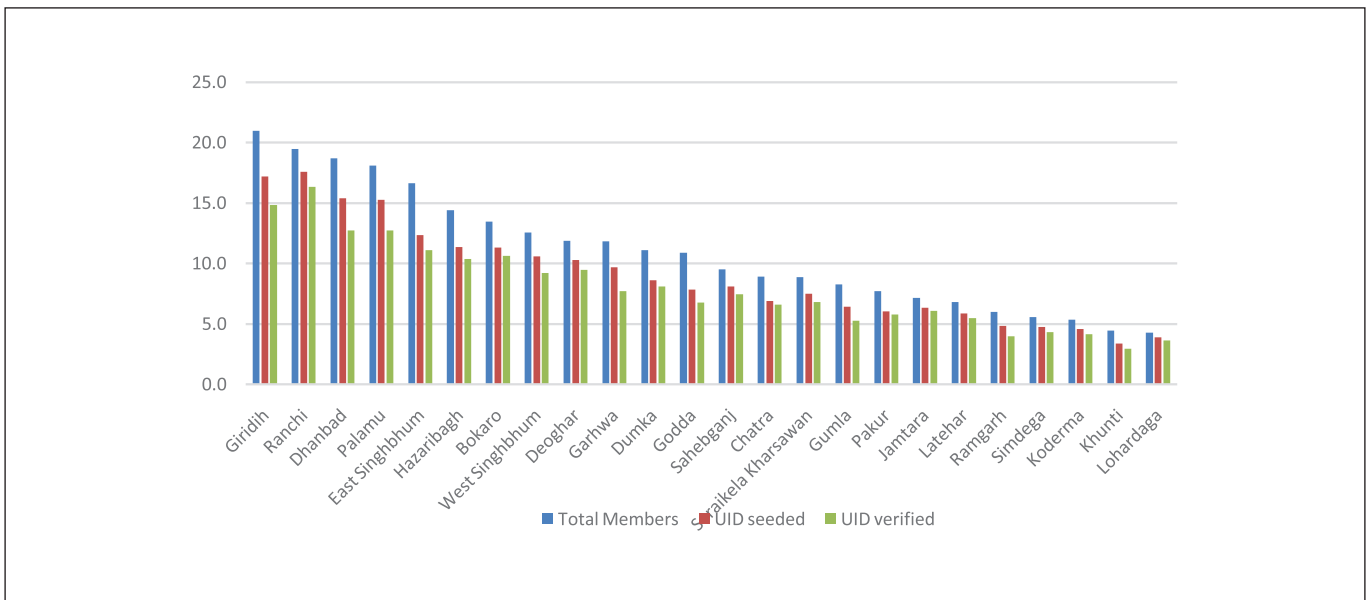
Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Digitization of Ration Cards with UID seeding and verification

To ensure that there is absolutely no leakage and that benefits reach the right person, in accurate quantity and at the right time the state government is very busy in the digitization of ration cards with UID seeding and the distribution of digital weighing machines to the dealers. Out of 56,98,736 ration card holders which covers 2,62,45,579 members, 2,15,45,871 have been UID seeded and 1,92,03,941 have been UID verified. In

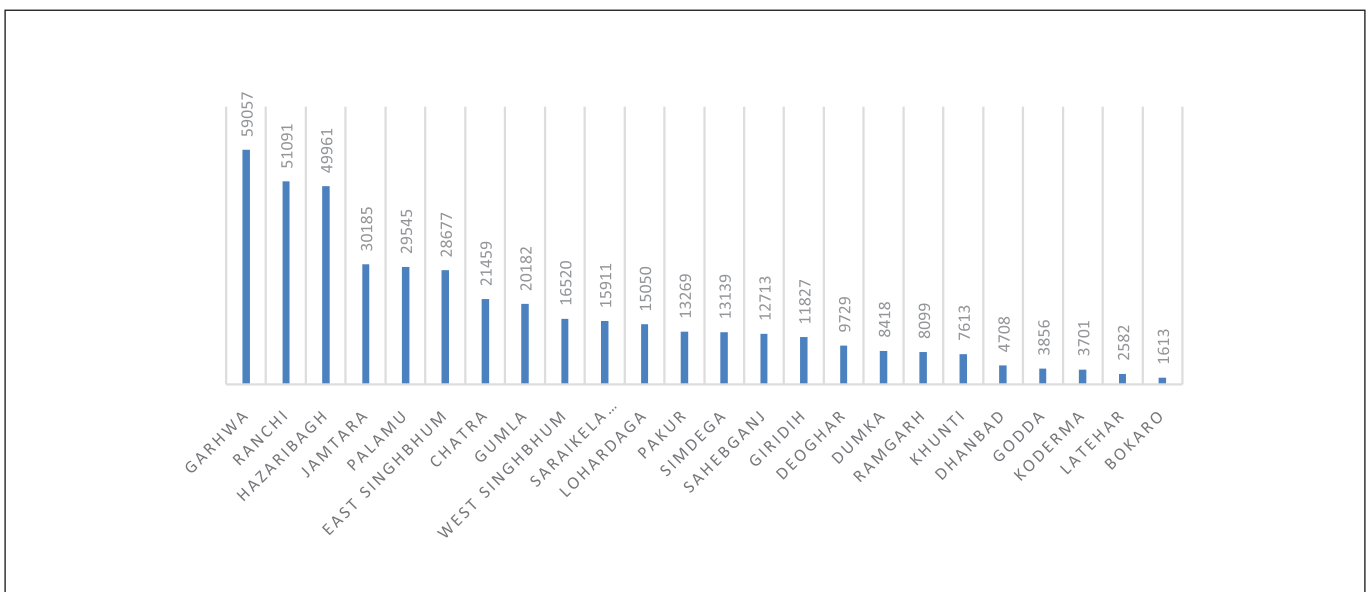
terms of UID seeding the success ratio stands at more than 82% whereas, in terms of UID verification out of those seeded it is more than 89%. Figure-7.4 gives the district-wise details of the total number of ration cards UID seeded and verified. During this process a total of 4,38,905 duplicate UID count has also been identified which is a significant achievement in sealing the leakages in PDS. The maximum number of duplicate UID count was found in Garhwa. The details are given in Figure-7.5.

Figure-7.8 : Ration Cards UID seeded and verified (District-wise) as on 10-12-2018



Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

Figure-7.9 : District-wise details of Duplicate UID count.



Source: Food, Public Distribution System and Consumer Affairs Department, Govt. of Jharkhand

National Food Security Act (NFSA)

NFSA is an act which ensures for near universal food-grain coverage for economically vulnerable sections of the society and it has been operational in Jharkhand since October, 2015. The Act allows Jharkhand to insulate its 86.4 per cent population in the rural areas and 60.4 per cent in the urban areas from starvation. Initially, about 33 lakh BPL/Antyodaya families and 16 lakhs more families from the lower strata of erstwhile APL category as priority category taking it to total 51.70 lakh families were covered under this scheme and this number is now more than 57 lakhs. Antyodaya families are getting 35 kg of grain while priority families get 5 kg of grain per head at the rate of Re 1 per kg.

Aahar Jharkhand

Aahar Jharkhand, an online portal available on the web address <https://aahar.jharkhand.gov.in> is maintained by the Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand. The portal provides real-time information about the number of PDS dealers and their addresses with the stock of food grains, number of ration card holders under different schemes, the status of digitization of ration cards, UID seeding and duplicate UID counts, the numbers of godowns with storage-capacity and the current stocks, etc. and many more important pieces of information. This portal is a very good attempt in increasing the transparency as anyone can have access to almost real time information about the stock of food grains and other materials, its distribution policy, current price and allocation policy, daily and monthly transaction details with beneficiaries' details 24X7 from anywhere in the world.

Box-7.1: Global Agriculture and Food Summit in Jharkhand

Jharkhand's first two day long Global and Agriculture and Food Summit was held on the 29th and 30th of November, 2018 at Khelgaon in Ranchi. The aim of the summit is to promote Jharkhand as a key player to attract investment in the agricultural sector. The summit will focus on organic farming in horticulture, dairy, poultry and fisheries, and food processing.

Seven countries, including China, Israel and Malaysia participated in the summit and presented their views to harness the potential of agriculture and food processing industries. The CM pledged to turn around the abysmal conditions, farmers were facing. He promised to increase their income four-fold by 2022 and make one-year interest free agriculture-loan available to them. He also reiterated his promise to dole out mobile sets to 28,00,000 farmers. The government has also decided to ink a technology-exchange-agreement with Morocco, so that the farmers of Jharkhand can gain expertise from their Green Morocco Plan.

China, Singapore and Philippines have showed interest to import vegetables from Jharkhand. While, Yoga Guru and proprietor of Patanjali products, Baba Ramdev offered to set up food processing units in Jharkhand with joining hands with the government to help the farmers during the course of the summit.

Status of Ongoing Schemes

These schemes are intended to reduce the food-insecurity in the state by attacking the problem in a general as well as in surgical manner.

Priority Household Scheme (PHS)

The Priority Household Scheme under the NFSA-2013 is running well in the state. At present, the food grains (rice and wheat) are being provided to each person under this scheme is 5 Kg per person at the subsidized rate of Rs 1/Kg. A total number of 47.89 lakhs households is receiving benefits under this scheme. The monthly allocations of food grains to the state government for this scheme are 100085.145 MT of rice and 12776.300

MT of wheat respectively.

Antyodaya Anna Yojana (AAY)

Under AAY, 35 kg rice/wheat per family per month is distributed to the Antyodaya families at the subsidized rate of Rs. 1.00 per kg. At present the total number of targeted antyodaya families stands at 9, 09, 341 and the monthly allocation of food grains to the state government for this scheme is 28463.404 MT of rice and 3633.73 MT of wheat.

Annapurna Yojana (AY)

The scheme is meant for those who are above 60 years of age and who are eligible for Indira Gandhi National old Age Pension Scheme but not getting the benefits.

Under this scheme 10 Kg of rice per beneficiary every month is distributed free of cost to 54, 939 persons. This scheme is fully sponsored by the central government and the allotment of the required amount of rice for the first six months in FY 2018-19 has already been made to the state government.

Subsidized Kerosene Oil

White ration card holders have also been added to be beneficiaries under this scheme from FY 2017-18. At present 58.40 lakhs households are covered under this scheme and the yearly allotment of kerosene oil is 1, 86, 768 KL. In distributing kerosene oil under this subsidized scheme, 50% of PDS shop owners' commission is borne by the state government, which is proposed to be 50 paise per litre and the rest 50% commission is the consumers' liability. This scheme is now fully covered under DBT scheme.

Godowns Construction/Renovation

The storage of food grains helps in ensuring a regular supply of food which is a condition of food-security. Till date 2.68 lakhs MT storage-capacity has been created in the state, out of which 1.57 lakhs MT are complete and 1.11 lakhs MT are under construction.

Distribution of Salt for PHH/AAY

Although salt is seen as a meagre thing to be distributed by the government but keeping in mind the health problems due to the lack of iodine in salt which is easily available to the poor people in the state, the government is distributing 1 Kg free flow of refined iodised salt per month at the subsidized rate of Rs. 1 per Kg to each PHH/AAY family. At present a total number of around 57 lakh families are benefiting from this scheme.

Distribution of Sugar to AAY

Now only AAY families are covered under this scheme. Under this scheme sugar is provided at a subsidized rate to AAY families depending on dietary habit/central allocation/preferences of the population. The supplier for the sugar in the state is being selected by a reversed auction process of NeML. At present a subsidy of Rs. 18.50 per Kg is being provided by the central government.

Mukhyamantri Dal-Bhat Yojana

377 Dal-Bhat centres are running in the state and providing one meal at Rs. 5 only to the poor people. At

present only 12 Dal-Bhat centres are running at night and there is a plan to increase this number. There is also one scheme to convert Dal-Bhat Kendras running on government-land into Aadarsh Kendras.

In addition, there is a plan to run the same scheme as Mukhyamantri Canteen Yojana in the district of Ranchi with an enhanced quality and facility on pilot basis. M/s Touchstone Foundation has been entrusted with the responsibility for this. This scheme will be extended to other districts in case of its success as a pilot scheme.

Pradhanmantri Ujjawala Yojana

This central scheme runs in coordination with the state government to provide free LPG connections to the families covered under SECC data. In this scheme the state needs to provide the variable amount for gas stove and first gas refill per connection. From FY 2016-17 till date, a total number of 23.73 lakh connections have been distributed under this scheme in the state.

National Food Security Compliant Redressal

A proper mechanism needs to be evolved for the proper monitoring, supervision and redressal of the grievances under NFSA. For this purpose, Call Centres, Help Lines, DGRO, State Food Commission, etc. have been established.

Distribution of Digital Weighing Machine to PDS Dealers

There is a proposal to provide digital weighing machines to PDS shops to stop pilferage in the distribution of food grains and to ensure that the beneficiaries get a proper quantity of the same. In FY 2017-18 the PDS shops of Ranchi District and Anubhajan of Dhanbad and Jamshedpur have been provided this machine on pilot-basis.

Skill Development Scheme

Training and Workshop for the officials for capacity-building and efficiency-enhancement the successful implementation of NFSA are important. Consumer awareness which is presently very poor in the state seeks attention and several provisions have already made to enhance it. Funds have been allocated to educate and empower consumers about their rights and duties. Several media like print and electronic media, banners and hoardings, trade fares and exhibitions, seminars and workshops, etc. are to be used for this purpose.

Consumer Welfare Fund Scheme

In order to look after the welfare of consumers in the state, a welfare fund with an initial amount of Rs. 10 crores have already been constituted in FY 2016-17. The contribution of the state and the central government in this scheme is in the ratio of 25:75 respectively.

New Schemes

PVTG Dakiya Scheme

It is an innovative scheme of the Jharkhand government, started from April 2017, aims at providing food grains to the Primitive Vulnerable Tribal Group (PVTG) population. 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 73,386.

Box-7.2: 50 food processing plants ready for ground breaking in Jharkhand

Jharkhand is a vegetable-surplus state and produces around 40 lakh metric tonnes of vegetables annually against the requirement of 30 lakh metric tonnes. The state supplies around one million tonne vegetable to other states mainly Bihar, Odisha and West Bengal every year. Looking at the potential in agriculture, particularly in the production of vegetables many private sector-players are ready to invest in this sector.

In line to the above facts Union Agriculture Minister Radha Mohan Singh and Jharkhand Chief Minister Raghubar Das laid the foundation stone for 50 food processing units that are to come up in the state at a cost of Rs. 271 crores, during the two-day Global Agriculture and Food Summit, held on 29-30th Nov., 2018.

Jharkhand government has also planned an MoU with Patanjali Ayurveda and Patanjali Food Park (PFP) project to process and market organic products of honey, wheat, rice and vegetables grown in the state.

Conclusion

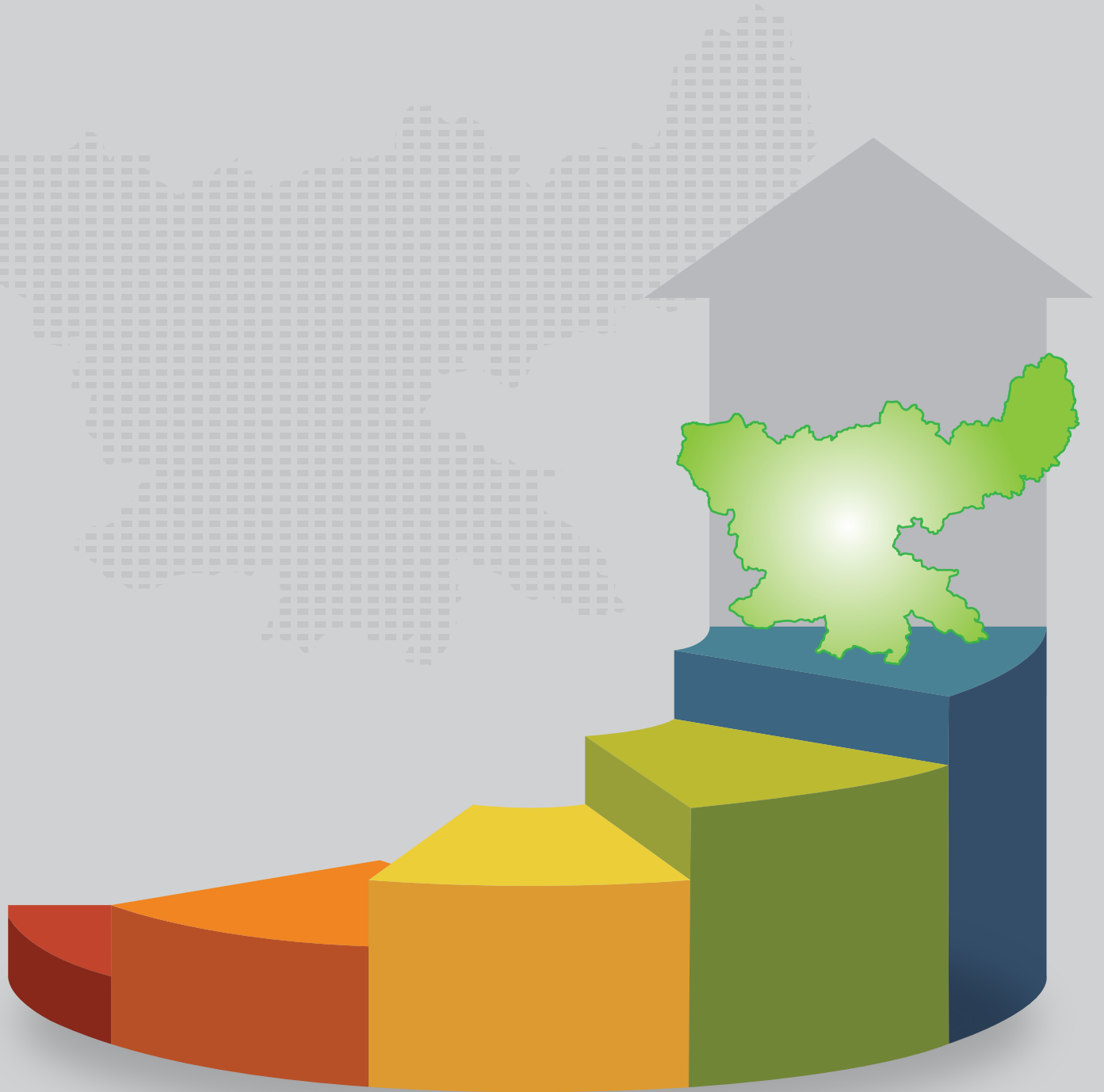
Thus, the state's progress in improving the food-security status is quite appreciable. The state has made efforts to ensure the maximum availability of food. It has already procured more than 19.8 lakh quintals of paddy in the month of April 2018. The current stock (Dec., 2018) of rice, wheat, salt and sugar stands at 1.49 lakh MT, 23.8 thousand MT, 4.5 thousand MT and 4.8 thousand MT respectively and which has occupied more than 83% of total storage capacity available in the state. The state has also put its efforts to improve the accessibility of food. The government has allocated more than Rs. 800 crores as subsidies to PDS and more than 84% of it has already been utilized. All central schemes including some of state governments' own schemes like Dakiya Yojana, etc., intended to improve food-security are running well in the state. The network of PDS dealers

are expanding in the state and the number of UID seeded and verified ration-card holders is also increasing. The identification of more than 4 lakh duplicate UID count and its elimination from the system will certainly help in improving the availability and accessibility of food grains to the beneficiaries.

However, in order to meet the target of near-universal food-security in the state as set under the NFSA, further improvement is required on all fronts particularly on the expansion of capacity and the improvement in delivery. Programmes like Global Agriculture and Food Summit will be of great help in that connection as this will not only increase the focus on agriculture and allied sectors which happens to be the backbone of food security but will also bring investors and investments which is the key to faster growth.

VIII

INDUSTRY



The progress of a state is to a great extent measured by its industrial development. Although agriculture has its own importance and provides the basic necessities of life, but it alone cannot take a state forward. Even to modernize and improve agriculture, industrialization is necessary. With Make in India progressing at a fast pace, Jharkhand has also followed its footsteps and launched Make in Jharkhand, which can also boost the industrial sector of the state.

Jharkhand is becoming the vanguard of industrialization among the Indian states. To ensure regular and mega investments, the State has been able to convince the ambassadors of industries to choose Jharkhand as a preferred investment-destination. Accordingly, major industrial houses have linked MoUs with the state government. Jharkhand is presently producing about 20-25 percent of the total steel being produced in the country. With the proposed expansion of a number of integrated steel plants, Jharkhand will be producing over 25 MT of steel and thus will turn out to be a potential steel-hub of India¹.

Jharkhand is one of the leading states in India in terms of the rate of economic growth. The GSDP growth of the state stood at 10.22 per cent in 2017-18, compared with 6.6 per cent pan India.

At the time of its formation (in the financial year 2000-2001) the GSDP of Jharkhand at constant (1999-2000) prices was only 1.6 per cent of that of the whole country and its per capita income was about 40 per cent less than the average. It also lagged behind the all-India average in most of the developmental indicators. Though the development-gap still persists, it has succeeded in reducing these gaps over the years. The share of income of Jharkhand in the national income enhanced to 1.84 per cent in 2015-16. Similarly, the per capita income of the state is only about 70% of the per capita income of India in 2015-16.

Jharkhand is one of the richest mineral zones in the world and boasts of about 40% of the mineral wealth in India. Due to its large mineral reserves, mining and mineral extractions are the major industries in the state. Despite this richness of mineral wealth, the people of Jharkhand are still poor and the state is unable to realise

the potential that this land offers for the benefit of its own people. Some of the major constraints are as outlined here.

A. Limitations on land availability for industrial purpose

One of the major reasons for this limitation are external to Jharkhand and embedded in the regulatory ecosystem and its interpretation thereafter. An outline of constraints is given below. These issues limit the availability of land for the industrial purposes and for the development of industrial infrastructure:

1. In Jharkhand 29% of the land is covered by the forest areas and is spread across the different areas of Jharkhand in a zig-zag manner. There are 15 wildlife sanctuaries in Jharkhand located with human habitations also. Several eco-sensitive zones are also located in Jharkhand.
2. As an outcome of 'T N Godavarman vs Union of India' case in the Supreme Court, the definition of forest-land was re-defined and even, the government land with the Department of Revenue and other Departments having natural resources mentioned in the record of rights as jungle-jhadi, jangal-saku, etc., came under the definition of deemed forests, even though there was no notification issued by the Department of Forest, Environment and Training or Department of Revenue, Registration & Land Reforms, as forest lands. This made it mandatory for the applicants to take Forest Clearance as per Forest Conservation Act 1980. Such areas are spread across the state in most of the villages as well as in the urban areas.
3. About 13 districts of Jharkhand are in Schedule V while six more districts are partially under Schedule V. However, Chotanagpur Tenancy Act 1908 (CNT 1908) and Santhal Pargana Tenancy Act, 1949 (SPT 1949) are applicable to the entire state. Thus, the entire state comes under the effect of Schedule V. This makes it tough for the industry to get land in Jharkhand. Even when an industry acquires land, it gets stuck up in the Environment Clearance and Forest Clearance.

¹ Jharkhand Industrial and Investment Promotion Policy 2016 (draft)

All of the above is not in the policy domain of the state government but that of the government of India. These externally imposed challenges and bottle necks limit the land availability and increase the cost. This in turn makes it unviable for the bigger as well as the smaller units to operate in Jharkhand.

Land is the basic requirement for any activity and thus setting up for industries and industrial infrastructure also. It is thus proposed that the government will acquire land from the land owners in the state for industrialisation. The details of support required for the purpose are given below:

- a. Under Amritsar-Kolkata Industrial Corridor project, there is a proposal to set up an integrated industrial corridor at Barhi in the Hazaribagh district on 2,500 acres of land. As per the government of India norms, the state government has to provide land and DMIC with an equal contribution as equity. However, the state has limited resources to acquire such a large parcel of land. This may cost Rs. 1,250 crores.
- b. Sahebbganj is being developed as a multimodal hub under Sagarmala project. This division of Santhal Pargana comes under the Santhal Pargana Tenancy Act 1949 in which no land is transferable. To make this hub successful, the catchment area of this port also requires a huge industrial base, which is currently absent. It was proposed to develop an industrial estate in 5000 acres of land. This project involves land acquisition costing Rs. 2,500 crores.
- c. As per para 3 of the Jharkhand Industrial Investment Promotion Policy 2016, there is a proposal to develop an industrial estate across the state in order to provide sufficient employment opportunities for of the youth of the state. Acquiring land of about 200 acres in each of the 24 districts of the state at the rate of Rs. 50 lakhs per acre will need about Rs. 2400 crores.

After the distribution of the government land for the landless since the land reforms period, there is little land which exists for the industrial purpose. Without government-acquisition of land, industrial development will be hampered. Thus a grant of Rs 6,150 crores is thus required to support the above initiatives.

B. Lack of Industrial infrastructure

The development of the Industrial sector is crucial to support the primary and tertiary sectors in the state. Therefore, the state aims to establish a ‘State-of-art’ industrial infrastructure, expand sustainable manufacturing activities, harness the potential of industrialization in the rural areas, foster innovation and create employment opportunities across the sectors by providing favourable, innovative, and a globally competitive business climate.

However some of Infrastructural support/ facilities like road, rail, air-connectivity, dry port, logistics facilities, etc., are lacking or are not at par with the other developed states or the national average in spite of multiple investments and improvements. For the development of an industrial park/ estate, infrastructural development in the industrial areas and treatment plant in the industrial estate, financial support is required. Details are given below:

- a. Logistics hub in Ranchi and Jamshedpur, costing Rs. 500 crores each
- b. Dry ports in Bokaro and Dhanbad, costing Rs. 350 crores (both projects)
- c. Sector specific parks – Rs. 1,000 crores (Rs. 100 crores each for Granite Park, Plastic Park, Textile park, Pharmapark and two IT parks. The grant for Defence manufacturing park will be around Rs. 400 Crores)

C. Employment generation support

Jharkhand is joining the development stream, which many developed states in India have already achieved. A typical problem that Jharkhand faces is in the current demographic make-up. The Net Enrolment Ratio in the state is much lower as compared to the national average. However, under the universal education system, the ratio of 10+2 students passing out to pass outs from the higher education system is much higher as compared to the situation at the national level or in neighbouring states.

In such a situation, the hands seeking employment are not suitable for agriculture or even the service sector. The option for these graduates, are in the high-employment-generating sectors such as garment manufacturing, food processing and automobile and food processing sector.

With this perspective, Jharkhand had announced policy initiatives with employment generation subsidies and other incentives, particularly, Jharkhand Textile, Apparel and Footwear Policy 2016, Jharkhand Food Processing Industry Policy 2015 and Jharkhand Feed Processing Industry Policy 2015, besides others.

Following this, Jharkhand has been able to attract a significant number of investments to Jharkhand in these sectors, to set up their manufacturing units. There are instances, where migrated people have returned to their native places in Jharkhand as they were working in unhygienic and inhuman living conditions elsewhere. A support of Rs. 3000 crore is required to sustain these initiatives.

Supporting employment and post skill-development training, will help in preventing the migration of people from Jharkhand to other parts of the country. This will also help us participate better in the national as well as the global economy.

Sectoral Share of Industries

The year-on-year growth rate for the industrial sector has been satisfactory but at a slow rate. The growth rate

in 2017-18 was 5.58 whereas the growth rate in 2018-19 was 5.64. The secondary sector, despite a relatively satisfactory growth rate recorded by the manufacturing sub-sector, an important constituent of this sector, has grown at the rate of 4.8 per cent only, because of a slow growth in the construction and the Electricity, Gas, Water supply and Other Utilities sub-sectors, which are the other constituents of this sector.

The contribution of industry (comprising of ‘mining and quarrying’ and ‘secondary sector’) to the growth rate of the state has been about 31 per cent in this period. Within this sector the manufacturing and mining and quarrying have been the major contributors to the growth rate of the state contributing about 18 and 12 per cent, respectively. The other two constituents of this sector, ‘Electricity, Gas, Water supply & other Utility Services’ and ‘Construction’ have made negligible contributions to the growth of the economy – 0.5 and 1.5 per cent, respectively. Between these two sub-sectors while the ‘electricity, gas, water supply & other utility services’ are estimated to grow by about 4 per cent, though its contribution to State’s GSVA is less than 1 per cent, the share of ‘Construction’ in the GSVA of state is about 8 per cent but it is estimated to grow by 1 per cent only.

Table 8.1: Sectoral Contributions to the Growth Rate and their Share in GSVA in the year 2018-19

S. No.	Item	Contribution to growth rate	Share in GSVA
1.	Mining and quarrying	11.8	10.39
2.	Manufacturing	17.6	17.17
3.	Electricity, gas, water supply & other utility services	0.5	0.82
4.	Construction	1.5	8.06
	Secondary (2+3+4)	19.6	26.05
	Industry (2+Secondary)	31.4	34.93

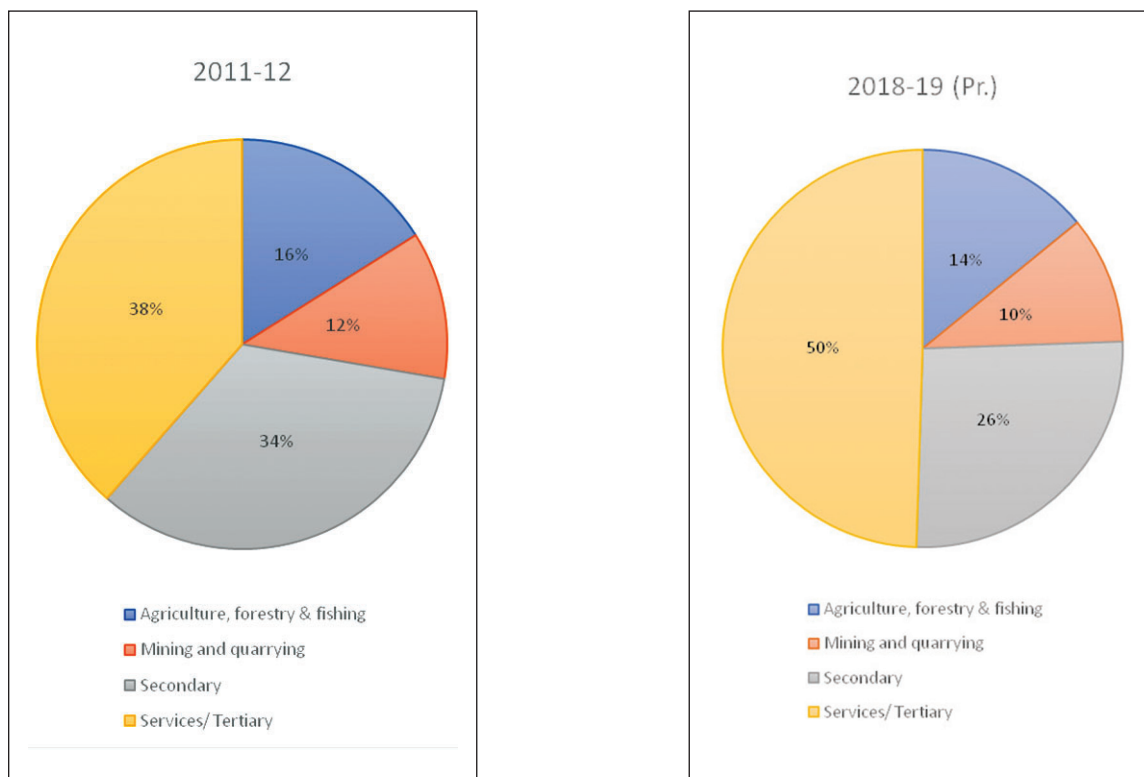
Source: Calculated from the data of projected GSDP of 2017-18 & 2018-19. Projected by CFS, GOJ on the basis of data of DES, GoJ and MOSPI, GoI.

Sectoral Shares in GSDP

The industrial sector comprises of Mining and Quarrying and the Secondary sector as mentioned above. It can be seen that over nine years the share of the secondary sector has declined from 34 percent of the GSVA to

26 percent of the GSVA, and the share of mining and quarrying has decreased from 12 percent to 10 percent. It can be seen that other than the services sector all the other sectors have witnessed a decline in their share of GSVA.

Figure 8.1: Comparative Sectoral Shares in GSDVA of the state

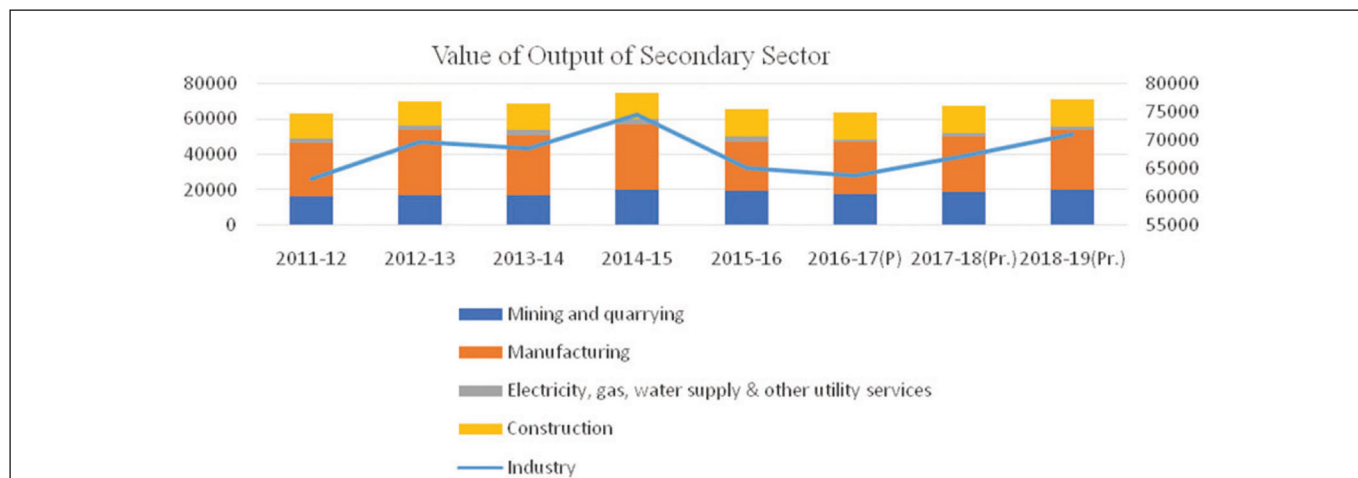


Source: Calculated from the data of projected GSDP of 2017-18 & 2018-19. Projected by CFS, GOJ on the basis of the data of DES, GoJ and MOSPI, GoI.

Manufacturing is the most important sub- sector of the industrial sector. The output of this sub-sector constitutes about 47 percent of the total output of the industrial sector on the whole. The value of the output of mining and quarrying constitutes about 28 per cent and that of the Construction sub sector about 22 per cent of the total output of this sector. In terms of the value of output, the Electricity, gas, water supply & other utility

services is an insignificant constituent of the industrial sector. The output of this sub-sector contributes only 2.3 per cent to the total output of the industrial sector. The share of this sub-sector has mostly declined in the last seven years - from 3.8 percent of the total output of the industrial sector in the year 2011-12, to 2.3 per cent in the year 2018-19.

Figure 8.2: Value of the output of the industrial sector at constant prices



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

The industrial sector is estimated to have grown by 5.6 per cent in last two year (2017-18 and 2018-19). Within this sector the manufacturing sub-sector is estimated to have grown by 6.8 per cent in the last year (2017-18) and is expected to maintain its growth at the same rate in this financial year (2017-18). Electricity, gas, water supply and other utility services and Construction, in the last two years, have grown at the annual rates of about 4 and 1.7 per cent, respectively. The growth rates of these two sub-sectors have remained much less than the other constituents of the industrial sector.

ANNUAL SURVEY OF INDUSTRIES

The Annual Survey of Industries (ASI), the major source of industrial statistics, provides estimates of

various aggregates like fixed and working capital, input, output, value added, employment etc. pertaining to the organised manufacturing sector. ASI covers all the factories registered under the sections 2 m(i) and 2m(ii) of the Factories Act, 1948 and Beedi & Cigar units registered under Beedi & Cigar Workers (Conditions of Employment) Act, 1966.

The ASI analysis provisional figures show that the top performers in the terms of fixed capital, the number of factories, output and GVA are three states, namely Maharashtra, Tamil Nadu and Gujarat. As can be seen from the table below Gujarat has done well in terms of all the characteristics as compared to other states with an increase in its overall percentage from 2013-14 to 2015-16.

Table 8.2: Top Performers with respect to the ASI data analysis 2013-14 and 2015-16: All India

Particulars	State top performers	Percentage	State top performers	Percentage
	2013-14		2015-16	
No. Of Factories (in Units)	Tamil Nadu	16.64	Tamil Nadu	16.01
	Maharashtra	12.97	Maharashtra	12.10
	Gujarat	7.00	Gujarat	10.48
Fixed Capital (in Lakh)	Gujarat	16.12	Gujarat	18.87
	Maharashtra	13.75	Maharashtra	12.32
	Tamil Nadu	11.41	Odisha	9.59
Output (in Lakh)	Gujarat	18.77	Maharashtra	17.02
	Maharashtra	13.93	Gujarat	16.82
	Tamil Nadu	10.33	Tamil Nadu	10.19
Gross Value Added (in Lakh)	Maharashtra	21.46	Maharashtra	19.51
	Gujarat	14.60	Gujarat	16.57
	Tamil Nadu	10.02	Tamil Nadu	10.32

Source: Compiled from ASI 2013-14 & 2015-16

Jharkhand's contribution to the total value of output, working capital and in the Net Value Added (NVA) in the country was 1.80 per cent, 2.2 per cent and 2.45 per cent respectively. The selected indicators of industries

are given in the table below.

Jharkhand seems to be lagging behind when compared to the top state performers in terms of these characteristics.

Table 8.3: Selected Indicators of Jharkhand's Industries according to ASI data

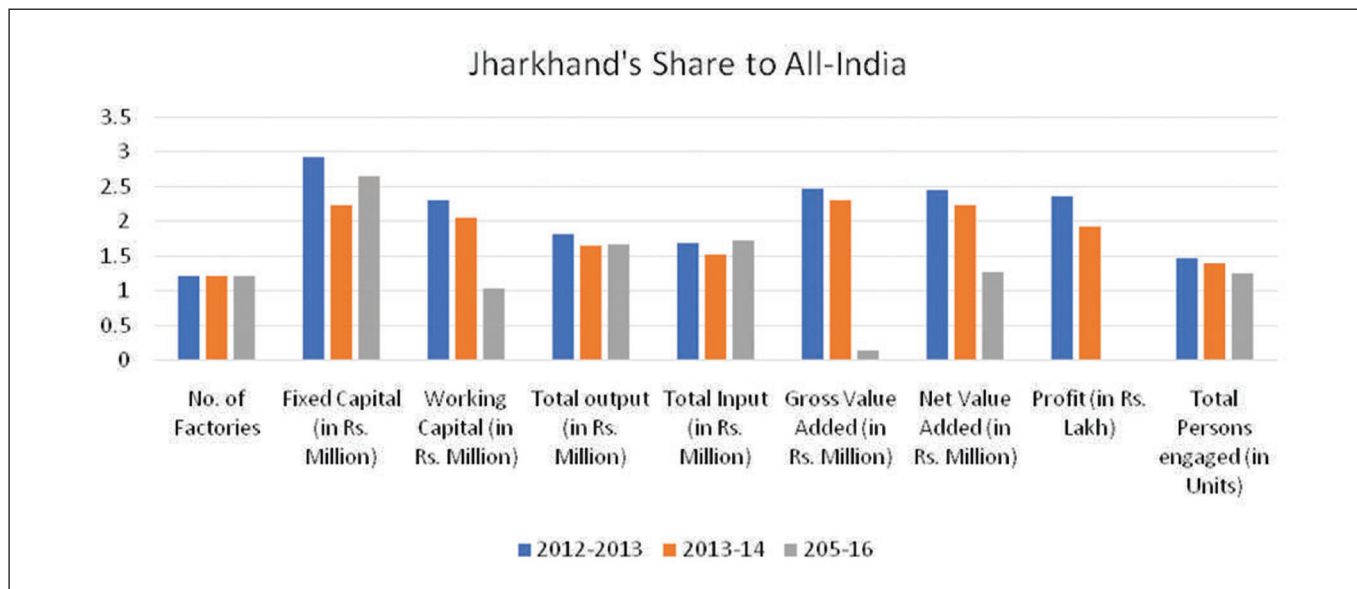
Particulars	Jharkhand's Percentage to India		
	2012-2013	2013-14	2015-16
No. of Factories	1.21	1.20	1.21
Fixed Capital (in Rs. Million)	2.91	2.23	2.65
Working Capital (in Rs. Million)	2.29	2.04	1.03
Total output (in Rs. Million)	1.80	1.64	1.67
Total Input (in Rs. Million)	1.67	1.52	1.73
Gross Value Added (in Rs. Million)	2.47	2.29	0.14
Net Value Added (in Rs. Million)	2.45	2.22	1.26
Profit (in Rs. Lakh)	2.36	1.91	0.01
Total no. of Persons engaged (in Units)	1.45	1.39	1.26

Source: Compiled from ASI 2013-14 & 2015-16

The data from ASI 2013-14 and 2015-16 reveals that Jharkhand has been improving in a number of fronts when we compare the categories of industrial production in the years 2012-13, 2013-14 and 2015-16. Although, the share of Jharkhand in categories

like Working Capital, Gross Value Added and profit have declined when compared to the share in All-India figures, the fixed capital and the total output have shown improvement.

Figure 8.3: Indicators of Jharkhand's Industries to All-India Level



Source: Compiled from ASI 2013-14 & 2015-16

The MSME Sector in Jharkhand

Both The Jharkhand Industrial policy 2012 and its predecessor JIP 2001 put special emphasis on the growth and development of the MSME sector in the state. The state of Jharkhand houses 108288 MSMEs. The MSME sector with an approximate investment of

Rs 3578.62 lakh provides employment to about 854077 people in the state.

Jharkhand ranks first in the production of Tasar Silk and produces about 70% of the tasar silk in the country. During the annual plan of 2017-2018 total 2211 M.T. of tasar was produced. Jharkhand is the only state in the

country to have achieved an integrated silk production chain. During the 12th Five year plan, the strategy is to modernize/technologically up grade and provide the necessary support in the form of common facilities centre, produce new designs in the sericulture-sector to make them globally competitive with the aim to improve incomes and the life style of rural sericulture

farmers.

As can be seen from the table below that investments as well as employment have been increasing year by year. The various policies like Make in India and others have contributed positively towards the MSMEs and generated higher investments as well as employment.

Table 8.4: Investment in Micro, Small and medium Enterprises Year wise Investment & Employment in MSMEs

Year	MSMEs in Nos	Investment in Lakh	Employment in Nos
2004-05	2804	3788.15	7285
2005-06	2828	4050.38	6696
2005-06	1854	4585.52	5467
2007-08	735	11375.74	6672
2008-09	931	12816.70	6609
2009-10	667	7170.88	5211
2010-11	690	15094.19	6512
2011-12	983	14146.87	7097
2012-13	4593	20346.95	19413
2013-14	3645	11717.28	12865
2014-15	3450	14085.27	15086
2015-16 Till June 2016	408	3578.62	2256
(Total)	108288	462883	850477

Source: The Department of MSME, government of Jharkhand.

The progress of PMEGP over the years has been elaborated in the table below, with the number of beneficiaries being added every year and the margin money. The year 2013-14 showed the highest number

of beneficiaries and margin money being added under the PMEGP. However, there has been an increase in the number of beneficiaries every year. not necessarily being more than the previous year.

Table 8.5: Year wise Progress in PMEGP

Name of Institution	2013-14		2014-15		2015-16		2016-17		2017-18	
	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
	No. of Beneficiaries	Margin Money in lakhs	No. of Beneficiaries	Margin Money in lakhs	No. of Beneficiaries	Margin Money in Lakh	No. of Beneficiaries	Margin Money in Lakh	No. of Beneficiaries	Margin Money in Lakh
D.I.C.	1527	2679.37	1119	1727.07	1136	1953.59	840	1360.99	571	1074.38
K.V.I.C.	637	1067.83	249	558.38	317	805.19	247	611.55	209	494.91
K.V.I.B.	448	785.89	331	575.89	386	800.77	304	687.99	332	871.29
Total	2612	4533.09	1699	2861.34	1839	3559.55	1391	2660.53	1112	2440.58

Source: The Department of Industries, GoJ

As can be seen in the table given below, the PMEGP has been very positive. PMEGP projects have been categorised into service and manufacturing industries.

There are 928 and 372 projects which started in 2016-17 respectively.

Table 8.6: Achievement under PMEGP (2016-17)

Scheme	Service Industries		Manufacturing Industries	
	No. of Projects	Margin Money (Rs. In lakh)	No. of Projects	Margin Money (Rs. In lakhs)
PMEGP	372	582.56	928	1912.85

Source: The department of Industries, GoJ

Government Initiatives

Several initiatives taken up by the Government of Jharkhand in the last year have started yielding fruitful results. From developing a single window portal, www.advantage.jharkhand.gov.in, which enables investors to get all the required information for investment and also get approvals in the clearance of the Jharkhand Single Window Clearance Bill 2015, Jharkhand has come a long way in making the required progress at the frontline of the industrial sector.

The Jharkhand government is also keenly working towards skill development, improving exports, mineral based products, agriculture and processed food products to ensure an increased industrial development across the state. Jharkhand is leading and is wooing investors in mineral exploration, plastics, chemicals, electrical, cement, metallurgy and automobile components, equipment for Heavy Engineering companies etc.

Jharkhand has important steel plants and mines. With auto grade steel plants being set up, there is a distinct advantage with respect to freight in sourcing cold rolled sheets. Jharkhand's automotive industry produces a wide range of products from simple nuts and bolts to complex items like shafts, radiators and axles supported by the Tata Motors as the anchor company. Jharkhand has experienced a phenomenal growth in the sericulture sector. In order to maintain the leading edge and rejuvenate the existing rural industries including sericulture, handloom, handicraft, khadi, textile etc., it is envisaged to assist them in modernisation/technological up-gradation and provide necessary common facilities, backward and forward linkages including product design, marketing support etc. so as to make them globally competitive and their products remunerative.

Around 30 per cent of Jharkhand's geographical area is

covered with highly bio-diversified forests, thus, giving opportunity for the development of minor forest produce based industries and herbal based industries. Also, its agro-climatic condition is suitable for the development of Agro-based and allied sector industries.

Jharkhand's proximity to the ports of Kolkata, Haldia and Paradeep, makes the state attractive for being an ideal location for Export Oriented Units (EOUs), interested to enter in the emerging markets of South East Asia considering the freight advantage ensuring the safe, smooth and faster movement of their produce.

Golden-Quadrangular-Super-Highway which passes through Jharkhand, is very close to some of the cities of Jharkhand viz. Dhanbad, Hazaribagh, Bokaro, Giridih, and Barhi. These cities are well connected to the super highway via branch roads. Further, it has high logistical advantage in catering to markets within the state and also with the adjoining states of West Bengal, Odisha, Bihar and Chhattisgarh.

The combined population of Jharkhand and these four adjoining states is about 247.5 million, which is nearly 25% of the country's population, making it very advantageous from the business perspective. The Central Government's Eastern Dedicated Freight Corridor passes through the state and would connect Jharkhand with West Bengal, Bihar, Uttar Pradesh, Delhi, Haryana, Punjab and Rajasthan and is expected to be immensely beneficial for the industries in the state. It would immensely help in the transportation of finished products to the ports in the Bay of Bengal in less time thereby bringing down the cost of transportation.

There has been a large scale change in the industrial environment due to economic liberalisation, privatisation and globalisation. A strong emphasis is being placed on Micro, Small and Medium Enterprises

(MSME). Clustering is being promoted, pollution norms have been made more stringent, and the concept of 'go' and 'no go' zoning has been developed for mining clearance. Value Added Tax (VAT) regime has been implemented and is likely to be further replaced by Goods and Service Tax (GST). Jharkhand is progressing fast on adopting the best practices for making an investor friendly environment in the state in order to facilitate investments, employment generation and welfare of the people. Measures like Jharkhand Investment Promotion Board, single window clearance, online payments, online verification, third party certifications, self-certification, time-bound approvals, availability of information online, standard operating procedures for approvals, deemed approvals, etc. are being adopted by the various departments and government agencies.

The present policy aims at creating an industry-friendly environment for maximising investment, especially in the mineral and natural resource based industries, MSMEs, infrastructure development and rehabilitation of the viable sick units. The objective here is to maximise the value addition to the state's natural resources by setting up industries across the state, generating revenue and creating employment.

Jharkhand Industrial and Investment Promotion Policy 2016

Industrial development promotes higher capital formation, raises income and absorbs surplus workforce to bring about equitable development. Therefore, the State Government has accorded top priority to industrial growth as a means to mitigate poverty and unemployment. Jharkhand Industrial and Investment Promotion Policy aims to establish state-of-the-art infrastructure, promote manufacturing, enhance inclusivity, foster innovation and create employment opportunities across sectors. Various policy instruments have been detailed in this document to catalyze the same. The state intends to be the most preferred destination for the investors by providing a favourable business climate, excellent infrastructure, good law and order and peaceful industrial relations. The new industrial and investment promotion policy focuses on creating a conducive eco-system which makes industries based in Jharkhand innovative and globally competitive. The government of Jharkhand lays utmost emphasis on sustainable industrial development anchored by

capacity building at the grassroot level. The policy approach is encapsulated below:

Objectives:

- a) To convert Jharkhand into a favoured destination for investors and to promote a sustainable industrial growth of the state
- b) To create time-bound, web-based transparent working mechanism for project clearance, date of production declaration and financial and non-financial assistances and clearances
- c) To establish linkages between large industries and MSME/ ancillary industries
- d) To ensure active participation of the Scheduled tribes, Scheduled castes and other underprivileged sections of the society for an inclusive industrial growth
- e) To promote employment generation in industrial and service sector by providing facilitation under the Industrial and Investment promotion Policy, MSME Act 2006 and other policy interventions
- f) To promote the MSME sector for textile, auto component, food processing and I.T., besides the ancillary and downstream industries
- g) To increase the level of processing, reduction of wastage, value addition, enhance the income of farmers as well as increase exports thereby resulting in the overall development of food and the food processing sector
- h) To create more Industrial Parks in private, joint venture and PPP mode under the Jharkhand Industrial Park Policy 2015
- i) To provide direct and indirect employment in the MSME sector
- j) To promote SEZ for IT and auto components
- k) Time bound disposal of project clearances through Single Window System
- l) To promote quality certification, FPO, process ISO and patent certification for the local industries.
- m) To promote new tool rooms and expand the activities of the existing tool rooms
- n) To set up new training institutes/centres for

- skill development with an emphasis to train 30% women and the up-gradation of existing training institutes with modern standard syllabi.
- o) To realise the potential of the agricultural sector and rural economy by setting up some more food parks in Jharkhand
- p) To revive the viable sick units
- q) To promote sector specific approach and value addition in production
- r) To encourage the adoption of green, clean-energy business practices
- s) To promote innovation, start-ups and technology transfers
- t) To promote qualitative enhancement of skill and human resources of the state
- u) Improving business environment by emphasising upon ‘Ease of Doing Business’
- v) Enabling manufacturing processes
- w) Zero effluent discharge plants

Keeping this in mind, there have been a lot of achievements under the JIIP policy 2016. The table below enlists the achievements under the JIIP 2016 regarding providing subsidies to the industries so as to encourage new and a greater number of investments. There has been a disbursement of approximately Rs. 4246 lakhs for subsidies to the various industries.

Table 8.7: Achievements in subsidy under JIIP 2016

Type of Subsidy	No of Beneficiaries	Disbursement amount
Capital subsidy	10 Units	4224.342 lakhs
Interest subsidy	--	
Captive generation subsidy	--	
Stamp duty and Registration subsidy	01 Units	22.3875 lakh
Pollution Control subsidy		
VAT Subsidy		

Source: The Department of Industries, GoJ

There have been 28 new industries established under the Jharkhand Industrial and Investment promotion policy-2016 with a total investment of Rs. 18117 crores and has generated an employment for 18057 people.

Table 8.8: New Industries established under new industrial policy (Jharkhand Industrial and Investment promotion Policy-2016)

No. of Units	Total Investment. (Rs. In Cr.)	Employment
28	18117.02	18057

Source: The Department of Industries, GoJ

In the exercise of powers conferred by section 15 of the Bihar Industrial Area Development Authority Act 1974 as adopted by the government of Jharkhand vide Notification No. 339 dated 02.03.2001 issued by the Department of Science Technology, Information Technology and Industries, Ranchi, Jharkhand industrial Area Development Authority, JIADA, with the previous approval of the state government of Jharkhand, This regulation shall be called the Jharkhand Industrial Area Development Authority Regulations, 2016.

The main objective of this regulation is to make provision for the planned development of the industrial area and the promotion of industries and matters appurtenant thereto including the judicious allotment of land under the command area of Jharkhand Industrial Area Development Authority for industrial purposes.

There have been 145 units established in Industrial areas with an investment of Rs 15,090 lakhs and generating an employment of 14,877.

Table 8.9: Industrial units established in Industrial Areas

No. of Units	Investment Rs. In lakhs	Employment
145	15090.408	14877

Source: The Department of Industries, GoJ

The different industrial areas are Ranchi, Bokaro, Adityapur and the Santhal Pargana regions. There are approximately 1400 working units established in these industrial areas with approximately 700 acres of land available.

Table 8.10: Status of Industrial Areas

Name of the Industrial Areas	No. of the Industrial Area	Total Areas in Acres	Land Available in acres	No. of working Units
Ranchi Region	22	1496.18	141.86	617
Bokaro Region	07	1470.59	210.42	577
Adityapur Region	01	3186.90	40.00	1135
Santhal Pargana Region	14	1146.85	393.92	47

Source: The Department of Industries, GoJ

<p>Ranchi Region</p> <ul style="list-style-type: none"> Total Industrial Area – 1496.18 acre Road Connectivity NH-33 & NH-23 Power – JBVNL Water – (Hinoo, Bhusur&Harmu River) 	<p>Adityapur Region</p> <ul style="list-style-type: none"> Total Industrial Area – 3186.90 acre Road Connectivity NH-33 Power – JUSCO & JBVNL Water – Subernrekha&Kharkai rivers
<p>Bokaro Region</p> <ul style="list-style-type: none"> Total Industrial Area – 1470.59 acre Road Connectivity NH- 2 & NH Power – DVC Water – Garga Dam 	<p>Santhal Pragana Region</p> <ul style="list-style-type: none"> Total Industrial Area – 1186.85 acre Road Connectivity NH-2 & NH Power - JBVNL

Source: Department of Industries, GoJ

Box 8.1 : Auto Cluster: AIADA

AIADA's crown jewel in its numerous endeavours for the benefit and growth of industrial units under its supervision is Adityapur Auto Cluster. AAC is a SPV under the IIUS Scheme of the Government of India. AAC provides state of the art facilities to its members and automobile industries:

The Facilities Available

1. Design Lab, equipped with CATIA V5, Auto form - Sheet Metal Simulation, DEFORM 3D - For Forging Simulation, FLOW3D - For Casting Simulation
2. Metrology Lab
3. Metallurgy Lab
4. Tool Room
5. Manpower Skill Development Centre

Upcoming Labs:

1. NVH
2. Electronic Control
3. Structural Dynamic Lab

Centre for Business Excellence:

1. Video Conferencing
2. Business Centre
3. Auditorium
4. Exhibition Centre

Hazardous Waste Management Facility (HWMF)

Common Effluent Treatment Plant (CETP)

Electronic Manufacturing cluster

Proposed by the Department of Electronics and Information Technology (DeitY), GoI to provide a world class infrastructure for the Electronic System Design and Manufacturing (ESDM) firms. DeitY provides financial support / grant for infrastructural development of EMCs to offer developed industrial plots at competitive rates.

EMC at Adityapur: Location Advantages

Connectivity : The project site is well connected with the rest of the country via all modes of transportation:

Port: The site is well connected to Haldia Port (approx 250 Km) or Paradip Port (approx. 380 Km) to facilitate imports and exports.

Road: The site is well connected via SH-5 and NH 33 which connects it with the major IT cities – Bhubaneswar and Kolkata. The upcoming ring road (eastern and western corridor) of 60 km will provide rapid connectivity to Jamshedpur and Adityapur.

Rail: Adityapur railway station (5 km) and Jamshedpur railway station (8 km) connect the site with the rest of the country.

Air: Located in close proximity to Jamshedpur airport (3 km) and Ranchi airport (130 km)

Ready Market for Auto Electronic Components Manufacturing

Home to one of the largest commercial manufacturing unit in India (Tata Motors at Jamshedpur). More than 600 auto ancillary industries including auto component units are functioning in Adityapur (One of the largest Auto Cluster of the country), providing direct employment to more than 25,000 people.

Skilled Manpower:

Jharkhand is a well known educational hub, providing skilled manpower, one of the most critical resources for any industry to thrive.

Leading Institutes like XLRI-Jamshedpur, IIM-Ranchi, BIT-Ranchi, Indian School of Mines-Dhanbad etc. provide technical and/or managerial education and training.

Upcoming Industrial Park – Mega Projects

The Government of Jharkhand is planning to setup up an IT Park and STPI at Adityapur.

An Automotive Vendor Park will be established under PPP mode at Adityapur.

Broad Parameters of EMC project:

AIADA /SPV offers Industrial plots/built space with world class infrastructure to the industrial units engaged in ESDM.

Industrial Plots

50.5 acres land earmarked for industrial units having 52 plots of 2 acres, 1 acre & 0.5 acre

Flatted Factories

BUA of around 2 lakh sq ft available for flatted factory

GoI Incentives under M-SIPS for ESDM units:

- a. Reimbursement of 25% of capital expenditure
- b. Reimbursement of CVD/Excise for capital equipment in non Special Economic Zone (SEZ) units
- c. Reimbursement of central taxes and duties for 10 years in select high tech units like FAB and ATMP

Preferential Market Access (PMA)

- a. Preference to domestically manufactured electronic products in government procurement
- b. Extent of government procurement from domestic manufacturing will not be less than 30% of the total procurement

Export Incentives

- a. Focus product scheme- 2% duty credit scrip
- b. Special products scheme - 5% duty credit scrip
- c. Electronics Development Fund (EDF) being created by the GoI as part of Digital India to support R&D and innovation in the ESDM sector.

Electronic Manufacturing Cluster



Improving the Business Eco-system

The government of Jharkhand has accorded the highest priority for improving the business eco-system in the state. With the view to steer rapid economic reforms and promote investment in the state, it is imperative to create an environment which is congenial for the development of entrepreneurship. Industry consultation, timely clearances, responsive administration and transparent government have been identified as the corner-stones for improving the business environment and boosting the investor’s confidence. To that end, the state shall provide both, pre and post investment services and facilitate for rapid industrialisation. The various components of improving the Business Eco-System are:

- Jharkhand Investment Promotion Board
- Single Window Clearance Mechanism
- Single Window Portal
- Single Window Cell

- Ease of Doing Business
- Jharkhand Investment Centre

Development of Industrial Infrastructure

High-end quality infrastructure facilities are absolutely essential for the industrial development of the State. As a result of the availability of quality infrastructure, industries get established with less capital investment and can function without impediments. These infrastructural facilities assist in the growth of business and industry along with promoting fair competition. In addition, to generating new employment opportunities and contributing in social development , it helps in attracting indigenous and foreign investment. The development of industrial infrastructure in the under-developed region has been identified as one of the strategies to attract industries and investments to these regions. Infrastructural facilities like land, industrial area development, industrial parks, transport infrastructure, telecommunication network, Special Economic Zones

(SEZ), and industrial corridor have been taken under the purview of the Industrial Policy 2016.

Development of the MSME Sector

The MSME sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs contribute to nearly 8% of the country's GDP, 45% of the manufacturing output and 40% of the exports. They also provide the largest share of employment after agriculture and hence, can contribute enormously to the socio-economic development of the state. The development of the MSME sector underscores entrepreneurship and innovation. Moreover, they are complementary to large industries as ancillary units. Therefore, GoJ places a strong impetus on the development of this sector.

Thrust Areas

Jharkhand has natural advantage in some sectors like mining, mineral based industries, steel, coal-based thermal power plants, coal to poly-generation industry, food processing, automobile and auto component, textiles and handicrafts etc. It is true that the natural advantage being owned by the state of Jharkhand has not been fully exploited for employment generation and for improving the living standard of the people. Some of the thrust areas have been identified in this policy. They are Tourism, Film Industry, Textile and Apparels, Sericulture, Handloom and Handicraft, IT and ITeS, Electronics System Design and Manufacturing, Biotechnology, Automobiles and Auto Components, Renewable Energy and Agro-Food-Processing based industries.

Jharkhand Textile, Apparel and Footwear Policy 2016

There has been a large scale change in the industrial environment due to economic liberalisation, privatisation and globalisation. A strong emphasis is being placed on Micro, the Small and Medium Enterprises (MSME). Clustering is promoted, pollution norms have been made more stringent, the concepts of 'go' and 'no go' zoning have been developed for mining clearances.

The Jharkhand government is working towards improving the exports, skill development, mineral based products, handicrafts, handlooms, agriculture and processed food products to ensure an increased industrial development across the state. Jharkhand is

also wooing investors in mineral exploration, plastics and rubber, chemicals, electrical, cement, metallurgy and automobile components, and equipment for heavy engineering companies.

Around 30% of Jharkhand's geographical area is covered with highly bio-diversified forests, thus giving opportunity for the development of minor forest-produce based industries and herbal based industries. Also, its agro-climatic condition is suitable for the development of agri-based and allied sector industries.

Textile and Apparel Sector in Jharkhand

Jharkhand, in its Industrial and Investment Promotion Policy 2016 has declared textile as the "Thrust Area". Jharkhand has experienced phenomenal growth in the Sericulture Sector. In order to maintain the leading edge and rejuvenate the existing rural industries including sericulture, handloom, handicraft, khadi, textile etc., it is envisaged to assist them in modernization/ technological upgradation and provide necessary common facilities, backward and forward linkages including product design, marketing support etc. so as to make them globally competitive and their product remunerative. Silk products from the state are famous for their quality and have a good demand within the country as well as in the international market.

Jharkhand ranks first in the country in the production of Tasar Silk. In order to maintain the leading edge and give special thrust to the sector, Jharkhand Silk, Textile and Handicraft Development Corporation (JHARCRAFT) was established in 2006 to provide support in designing, training, entrepreneurship development, marketing and raw material in a clustered and organized manner by grouping local artisans, SHGs and NGOs involved in similar activities.

JHARCRAFT has emerged as a brand not only in the country but also abroad. JHARCRAFT is supporting more than 2.0 lakh rearers, reelers, spinners, weavers, artisans etc. It also maintains cocoon banks using the existing infrastructure besides creating new infrastructure with the financial support of the state government and has 08 marketing outlets in the cities including Ranchi, Delhi, Kolkata, Bangalore, Ahmedabad and Mumbai. Marketing is also being extended under franchisee mode.

Development of Handloom

In addition to silk weaving, the state has taken steps for the revival of cotton wool weaving. Handloom fabric woven with cotton, wool or silk yarn has a strong presence in the districts of Ranchi, Latehar, Palamau, Ramgarh, Dhanbad, Bokaro, Godda, Pakur, Sahebganj and Khunti. There are 162 Primary Weavers Co-operative Societies and one Regional Handloom Co-operative union in the state. They were under stress since 1996 as there was paucity of raw materials, lack of new designs and marketing opportunities. This sector has been revived after a gap of 12 years.

More than 80 societies have become functional. In the Palamau area, wool weaving is done traditionally. Blankets and shawls woven earlier were coarse. Today, good quality blankets, shawls, tweeds, scarves and mufflers are being woven.

In cotton clusters also, the quality of weaving has improved. Earlier fabrics were woven on 48-52 reeds; today, 100-120 reeds are used. Yarn of 2/17, 2/20 and 10s were used; now weavers are using 2/40, 2/60, 2/80, 100-200 count yarns for finer weaving. They have started using jacquard and dobby also.

Fifteen cluster development schemes are being implemented for cotton weavers, for carpet and wool weaving. This will help create employment for more than 4000 weavers in the next two years.

35 mini handloom clusters have been sanctioned by the government of India with each cluster consisting of 250-300 weavers. The scheme is being implemented by JHARCRAFT with an objective to:

- Provide basic infrastructure such as looms and accessories to weavers
- Training for skill upgradation, design support and marketing support

Development of Sericulture

The state government is keen to develop Tasar post-cocoon activities in the state with a view to provide employment opportunities, particularly for the women in the rural areas. To develop post-cocoon activities, Common Facility Centres (CFCs) are being established where facility of reeling machines and other necessary equipment are provided for Tasar silk reeling for a group of 30 women. After training, the women's group

is involved in the production of Tasar silk. Marketing support is provided by JHARCRAFT.

Mega Handloom Cluster

The Mega Handloom Cluster scheme has been sanctioned by the government of India; Developer and consultants have also been selected. DPR of Mega Handloom cluster has been approved by PAMC under the Comprehensive Handloom Cluster Development scheme (CHCDS). All the six districts of Santhal Pargana i.e. Deoghar, Dumka, Godda, Sahebganj, Jamtara and Pakur will be covered under this Mega Handloom cluster.

Textile and Apparel Parks

Industrial areas with common infrastructure needed for the textile and apparel industries play a major role in the development of the textile and apparel sectors in the state. Again, specialization of a particular product based on the location, raw material and other advantages boosts the niche market contribution in the state. Considering these facts, Jharkhand has already developed few parks in the Textile and Apparel sectors and has proposed to build a few more in this area:

- Silk park at Rajnagar (Saraikela- Kharaswan)
- Silk Park at Irba, Ranchi
- Mega Textile park at Deoghar

Vision and Objectives of the Jharkhand Textile, Apparel and Footwear Policy 2016

- a) To establish the Textile and Garment Industry of Jharkhand as a producer of internationally competitive value-added products, thereby maintaining a dominant presence in the growing domestic and international market and contributing to the sustainable employment and economic growth of the state
- b) To reinforce the value chain of the textile industry across the state through capital infusion, technology transfer, skill upgradation and handholding

Objectives

1. To achieve a higher and sustainable growth in the entire textile value-chain from fibre to finished products, with an emphasis upon a balanced regional development:

- a) Strengthening and enhancing the capacity of all the essential value-chain activities such as spinning, weaving (handloom and powerloom) including pre loom activities, knitting, processing, garmenting, technical textiles and other supporting ancillary activities including Textile Machinery Manufacturing
 - b) Promoting the well- being of the cooperative sector-spinning mills
 - c) Supporting and strengthening the power loom sector in order to modernize the production technologies, enabling the supply of good quality fabrics in the required quantum
 - d) Making Information Technology (IT) an integral part of the entire value-chain of textile production and thereby facilitating the industry to achieve international standards in terms of quality, design and marketing
2. To equip the industry to withstand the pressure of import-penetration and maintain a dominant presence in the domestic market
 3. To liberalise controls and regulations so that the different segments of the textile industry are enabled to perform in a greater competitive environment
 4. To facilitate the emerging technical textiles in the critical areas such as in production, technology and research and development. The policy will encourage the integrated development in the sector aiming to the sustainability of the textile units in the state
 5. To support the industry with skilled human resources and to create at least 5 lakhs new employment opportunities in the state under the policy-period:
 - a. Strengthening the process of bridging the skill-gap by providing better institutional linkages, creating a good pool of trainers by conducting the training of trainers and the assessment and certification process to ensure the quality of training programmes.

6. Infrastructure-development to make the units globally competitive and meet the export compliance through cluster based Textile Parks, Mega Projects and CETPs etc.

Capacity Building

With the textile and apparel industry providing employment opportunities to over 45 million people directly and 60 million people indirectly, the government of Jharkhand understands the need to focus on capacity-building measures for improving the support systems so that the emerging opportunities on the account of globalization and liberalization are exploited. The government strives to provide expertise and hand holding to all the stakeholders and equipping them with necessary knowledge and skills so as to achieve and sustain a visible socio-economic development.

The policy has laid emphasis on the creation of opportunities that would directly augment employment in the state. The training module should be developed with the close involvement of industry and other stakeholders in the planning and implementations stages for the development of sector-specific skills for textiles and apparel. The policy also recognises the need to develop 'Centres of Excellence' and empower them by bestowing sufficient autonomy in its academic, administrative, and management areas.

National Institute of Fashion Technology (NIFT):

It has been proposed to set up a NIFT Campus in Ranchi, Jharkhand. The Ranchi Campus will offer undergraduate, postgraduate level programmes in the areas of Fashion Technology through the School of Design and School of Fashion Technology and Management. It will also offer Certificate Programmes through its continuing education programmes offered by the proposed Centre for Industrial, Artisan, and Crafts persons' Interaction (CIACI)

Footwear Design and Development Institute (FDDI):

It has been proposed to set up a Footwear Design and Development Institute (FDDI) in Jharkhand so that the mismatch of the trained manpower requirement in this sector is balanced and critical support to the industry in the area of design, technology and management is provided through which the industry can become more competitive, in terms of design, cost, quality and delivery time, in the global market.

Jharkhand Institute of Craft and Design (JICD)

The state government has sanctioned the establishment of Jharkhand Institute of Craft and Design in Ranchi to create professionals for the traditional creative industries. It aims to improve the quality of life by developing technically qualified professionals who will aid in the socio-cultural and economic development for a sustainable future. It also aims to develop a unique pedagogy based on craft and design with the help of NID, Ahmedabad.

Skill Development

Skill-development efforts in the area of sericulture, handloom and handicraft have been intensified with the setting up of:

- Saheed Nirmal Mahto Institute at Bhagaiya in collaboration with NID, Ahmedabad
- Apparel Training Centre, Namkum, Ranchi in collaboration with the Export Promotion Council, GOI
- Weavers' Training Centre, Ranchi, Saraiyhat (Dumka), Latehar, Jamshedpur, Gumla and Madhupur (Deoghar)

Jharkhand Skill Development Mission Society (JSDMS)

The Jharkhand Skill Development Mission Society (JSDMS) was registered on 1st October, 2013 under the Societies Registration Act, 1860 to focus on skill development in the sectors such as agriculture, apparel, made ups and home furnishing, handicrafts, textile and handloom among others.

Strengthening of the seed sector

For the development of sericulture, the availability of tasar seed is the most important factor. To fulfil the requirement of the tasar seed, the government of Jharkhand intends to strengthen the seed sector by providing trained and skilled manpower in addition to the adequate allocation of funds.

Incubation Centres

The government of Jharkhand aims to create an integrated workspace and linkage based entrepreneurial ecosystem for the start-ups that are operationally and financially viable thus increasing the chances of success of the start-ups and decreasing the time and costs

required to establish and grow a new business. The outcomes envisaged include:

- Promote entrepreneurship in apparel manufacturing
- Create additional manufacturing capacity
- Generate additional employment opportunities

Centre of Excellence for Textiles / Technical Textiles

With the changing trend in the textile sector and technical textile being a knowledge- based research oriented industry, there is a need for a Centre of Excellence for textiles. A Centre of Excellence for Textiles will be setup in the state in co-operative arrangement with the government of Jharkhand as the leading partner duly supported by other institutes having the requisite capacity such as Bombay Textiles Research Association (BTRA) or any leading technical institution of the state. The Centre of Excellence will be funded by the state government.

Entrepreneurship Development Program (EDP):

It aims to attain considerable growth and development in the Small and Medium Enterprises (SME) sector through the upcoming efficient entrepreneurs. Higher education institutions in the textile and apparel sector shall be encouraged to conduct tailor-made Entrepreneur Development Programmes. The programmes shall provide the basic knowledge on entrepreneurship-qualities, with emphasis on skills and behaviour, to the emerging entrepreneurs apart from disseminating the benefits of the textile policy and creating an awareness on the technical part of the textile sector.

Sericulture development

Silk is a natural protein-fibre and sericulture or silk farming is the rearing of silkworms for the production of silk. In the present era, Jharkhand is the leading producer of tasar silk. In order to increase the production of protein fibre, (mainly tasar silk) systematic efforts were made during the 12th five year plan. With an increase in production, the income of the farmers has also increased from 5000 to 55000 (40-45 days work) per month which is a radical leap forward. In order to increase the efficiency and to increase the production the following steps have been proposed:

- Engage about 1.5 lakh farmers in this sector during the Annual Plan 2016-17

- Rearers, spiners, reelers, and weavers to be organized into SHG, clusters etc. in the park mode activities
- JSTDI, which is one year certificate course, is proposed to be strengthened.
- Financial assistance is required to meet the physical target so it will be provided by the Central Silk Board and the other funding agencies of GOI
- 100 acres of mulberry plantation will be covered during 2019-20.
- Crop insurance scheme for 20000 tasar farmers will be provided.
- The production of silk is proposed to be increased from 2200 MT to 2400 MT.
- It has been proposed to earmark some fund for research and innovations in this area.
- Efforts are being made for the rearing of Laria

Eco Race of Tasar on sal trees and after the implementation of the Krishak Sambad Suvida Scheme through EFFCO KSL, 10,000 tasar farmers will be benefited.

Post Cocoon Reeling and Spinning

Employment provision for women is the most essential element for the growth and development of a family. So the state government has planned to develop tussar post cocoon activities in the state in order to generate employment opportunities for the women in rural the areas. For this, Common Facility Centres (CFC) are being established, where facility of the reeling machines and other necessary equipment are provided for tussar silk reeling for a group of 30 women. After the training, the women of the group are involved in the production of tussar silk. JHARCRAFT is going to provide market support and has decided to provide training in reeling and spinning to the 4650 women beneficiaries of 155 CFC during the year 2016-17.

Box 8.2 : CREATING OPPORTUNITIES CHANGING LIVES- JHARCRAFT

Jharkhand Silk Textile and Handicraft Development Corporation Ltd. (JHARCRAFT) is a government of Jharkhand undertaking under the Industry Department and is registered under section 26 under the Companies Act 1956. It was incorporated on the 23rd of August 2006. It was established to develop and support sericulture farmers, weavers and artisans living in the remote areas of Jharkhand. The organization is entrusted with the role of implementation of the government funded schemes to promote tasar silk, handloom and handicraft of the state. The infests of Jharkhand were showcased in Germany and Japan and were visited by the Prime Minister of India and the Chancellery of Germany in Hannover, Germany, which gave JHARCRAFT a global presence. It was also adjudged as the best government undertaking to have had a social impact by the Times Group last year. As JHARCRAFT is engaged in imparting training to the craft workers, which will support in the production and marketing of their products, the government of Jharkhand has classified one of the objectives to set up the Institute of Fashion Technology, NID Design centre in association with JHARCRAFT. The works carried out by JHARCRAFT are as follows:

- Implementation of various schemes of handloom, sericulture handicraft.
- Implementation of the Mega Handloom Cluster, Godda sponsored by the government of India and other centrally sponsored schemes.
- Implementation of computer aided design in 5 centres with the help of C-DAC and other state plan and training programmes.
- Running of 17 marketing outlets in various cities to provide marketing support to the persons engaged in the production of handloom, sericulture and handicraft goods.

Jharkhand Food Processing Industry Policy 2015

About half of Jharkhand's population is engaged in the agricultural and primary sector, which has huge untapped potential in agriculture, horticulture, fishery and animal husbandry. Jharkhand offers favourable climatic environment for these products. This potential

could be utilized for the development of a vibrant food processing industry in Jharkhand to meet its own needs and provide it to the other states and countries.

The objective is to create a favourable atmosphere for the setting-up of food processing units in the state through the creation of infrastructural facilities, encouragement

of capital investment and technology upgradation, development of marketing network, development-promotion, grants and concessions.

- Assistance of up to 35 per cent of the cost of plant & machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in the general areas (upto 45 per cent in the Integrated Tribal Development Project (ITDP) areas for the processing units (new unit modernisation, up-gradation, expansion & diversification)
- Grant-in-aid of 50 per cent of the bank appraised project cost for the general areas and 75 per cent in Integrated Tribal Development Area respectively to a maximum of Rs. 2.5 crore for setting up of primary processing centres/ collection centres in rural areas.
- Grant-in-aid assistance of 35 per cent of project cost (up to a maximum of Rs. 7 crores) for the setting up of cold chains, value addition and preservation of infrastructure; assistance will also be provided up to 50 per cent in the case of Integrated Tribal Development Areas.
- Grant-in-aid of 50 per cent of project cost establishment and modernization of meat and

fish-shops subject to a maximum of Rs.5 lakhs; 75 per cent in case of Integrated Tribal Development Areas.

Garhwa and Palamau have a huge production of dal. However, there is no major dal processing unit in these districts and there is a lack of forward and backward linkage facilities. Efforts shall be made to setup dal processing units in this sector through the private sector participation and forward and backward linkage shall be ensured through the corporate working in the food-processing sector, especially dal. In this initiative, the departments of agriculture, animal husbandry and cooperatives shall be encouraged for improving the farm -extension activities to improve the quality and quantity of dal in these districts.

In the Latehar district, a huge quantity of tomatoes are produced. However, there is no major tomato processing unit in Latehar. Safal is establishing a tomato-processing unit in Ranchi. They shall be encouraged to increase the procurement in this region and encouraged to establish a semi-processing unit for tomatoes in the Latehar district. In addition to Safal, PSU players shall be encouraged to establish a processing unit for tomato in the Latehar districts.

Box 8.3 : National Mission on Food Processing (NMFP)

The Ministry of Food Processing Industries, (MOFPI), govt. of India has launched a new

Centrally Sponsored Scheme (CSS) National Mission on Food Processing (NMFP) during the 12th Plan (2012-13) for implementation through the state govt. and further for the remainder of the 12th Five Year Plan (2013-17).

The main objective of the scheme is to encourage Food Processing Industries, skill development, training, Food Safety and Market demand both from farmers and entrepreneurs. The main schemes include

- a) Scheme for Upgradation/ Establishment/ Setting up /Modernization of the Food Processing Industries (sectors include Food processing sectors like fruits & vegetables, milk/ meat/ poultry/ fish products, cereal/ other consumer food products, rice/ flour/ pulses/ oil milling and such other agri-horti sectors including food flavours, colours, oleoresins, spices, coconut, mushrooms wines and hops)
- b) Scheme for supporting cold chain facilities and Reefer Vehicles for other than Horticulture Products (sectors include (a) Dairy – All milk and milk products, etc. (b) Meat – All meat and meat products etc. (c) Aquaculture and marine products like prawns, seafood, fish, and their processed products etc. (d) Any other non- horticultural food products requiring integrated cold chain.)
- c) Setting up/ modernization/ expansion of abattoirs
- d) Scheme for Creating Primary Processing Centres (PPC) / Collection Centres (CC) in the rural areas (sectors include (i) Minimum land requirement will be 1- 2 acres. (ii) Minimum processing facilities at the firm includes facilities for weighing, cleaning, sorting, grading, packing, precooling, Controlled Atmosphere (CA)/ Modified Atmosphere (MA), cold storage, dry warehouses and IQF. (iii) Mobile pre-cooling trucks and reefer trucks for transportation of the perishable agricultural produce/ horticulture/ dairy/ meat/ fish produce.)
- e) Modernization of the meat shops

Jharkhand Feed Processing Industry Policy 2015

Animal Husbandry is an area where Jharkhand has huge untapped potential in developing an ecosystem suitable for the progress of Animal Husbandry sector, which includes dairy, meat, piggery, goatery, poultry and fisheries. Availability of suitable 'Feed' is an important component of an animal husbandry ecosystem. This policy will help in developing feed-producing capabilities in the state to support the animal husbandry sector. Farmers and intermediaries will also benefit with demand for processing of agricultural by-products and opportunity for additional income.

The main objective is to create a favourable atmosphere for setting-up of animal feed processing units in the state through creation of infrastructure facilities, encouragement of capital investment, technology up-gradation, development of marketing network, development promotion, grants and concessions.

The scheme envisages financial assistance to food-processing units in the form of grants-in-aid:

- 35 per cent of the cost of plant & machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in general areas.

- 45 per cent of the cost of plant & machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in Integrated Tribal Development Project (ITDP) areas.

Conclusion

Therefore, it can be said that although the growth of the industrial sector has been satisfactory, the industrial sector has shown a lot of efforts to improve and flourish the secondary sector of Jharkhand. In the various policies like the Jharkhand Industrial and Investment Promotion Policy 2016, Feed and Food Processing Policy 2015, Textile, Apparel and Apparel Policy 2016, the state is on a constant endeavour to improve the industries sector of the state. The policies not only promote new industries but are also of the view that the skill development of the people of the state are looked into. They are not only promoting growth but also ensuring that there is required skill in the state to provide employment as well as long term employment to the people of the state.

IX

INFRASTRUCTURE AND COMMUNICATION

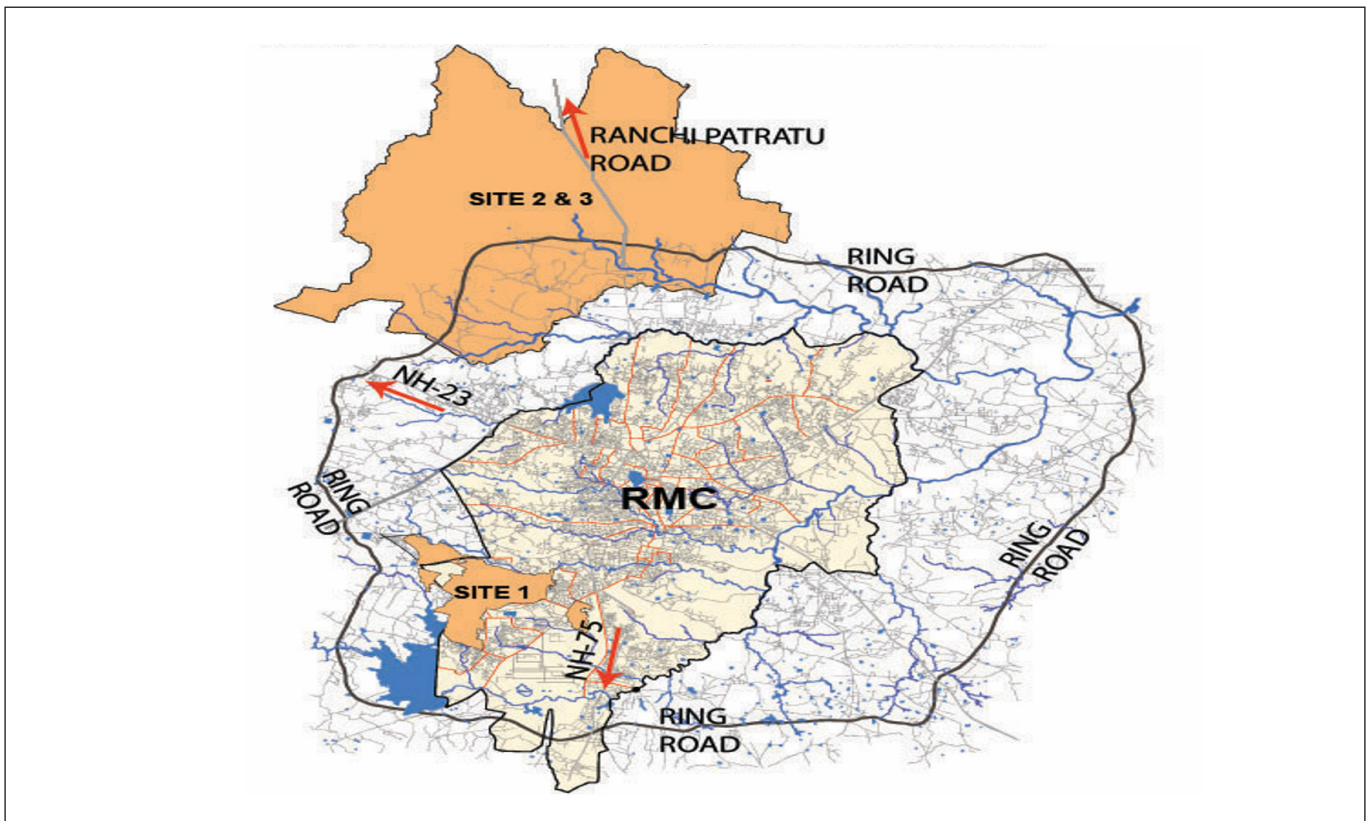


Jharkhand has slowly been progressing towards better and state-of-the-art infrastructural facilities for the state. Infrastructure and communication in terms of roads, railways, civil aviation as well as energy is pivotal for the development of the state. Better facilities like these will help in attracting public as well as private investments which are needed for the state to move towards higher growth levels. The government of Jharkhand has constantly made an endeavour to better these facilities in the state so as to pave the way for better developmental activities of the state.

Development of the Core Capital City, Jharkhand

Greater Ranchi Development Authority (GRDA)

Jharkhand, an undertaking of the government of Jharkhand, is developing a New Capital City at Ranchi in three (3) land parcels viz. Site-I, Site-II & Site-III measuring about 29855 acres. The present report deals with Site 1. It covers an area of **1902.64** acres and is located in the south-western part of the Ranchi city at a distance of approximately 3 km from Ring road and approximately 2kms from NH75. Major part of the site is located within Ranchi Municipal Corporation limit. The Ring Road which is under construction connects the site with the entire the Ranchi city and its peripheral areas (Figure below). Site 1 is also connected to sites 2 & 3 located in the north-western periphery of the Ranchi city through the Ring Road.



Ring Road map

Present Status of Development

Site 1 comprises of Anni, Kutte, Tiril, Labeled, Bhusur, Kalyanpur, Murma, Jagannathpur1 and Jagannathpur-2 villages. The major land area is under the ownership of the government of Jharkhand. The site has an undulating terrain sloping down towards the north and south with the central area as the ridge area. Site 1 has natural stream running within and around the northern part of its boundary which collects the storm water of the area and channelizes it to river Subarnarekha. The

natural drainage pattern of the southern part of Site 1 is towards the water bodies near the Dhurwa dam at the south western part of the Ranchi. Out of the three dams situated within and around Ranchi city, Dhurwa dam is located in the south-western part in proximity to Site 1 and may serve as the partial surface water source for the New Capital City Site 1.

Planning of Core Capital City

Within Site-1, Core Capital City is being proposed for the better functioning of all administrative, legislative

and business/industrial activities. It is conceived as a state of the art infrastructure equipped city which will also showcase sustainable development. The planning and designing of the Core Capital City of Ranchi, Jharkhand has been carried out considering the culture and functions of the people of the Ranchi city

as well as the people of Jharkhand. The components and requirements of the Core Capital City have been formulated after a series of interactions with the various stake holders. The major requirements of the Core capital city are listed in the table below.

Table 9.1: Major requirements of the Core Capital city

Category	Sub-Components
Capital Complex	High Court, Legislative Assembly, Secretariat
Public/Semi Public	Central government offices/Public Sector Offices, Utilities & Services etc& other government offices.
Institutional	Hospital, Nursing home, Educational Institutions
Cultural Facilities	Library, Theatre, Art Galleries, Museums, Knowledge Centre, Public Plazas etc
Fair & Exhibition Ground	Auditorium, Exhibition Centre, Convention Centre, Event spots
Commercial	Shopping Mall, Multiplex, Hotels, Corporate Offices, Entertainment zones, Food courts etc.
Residential	HIG, MIG & LIG housing, Government Employees’colony, Rehabilitation and Rresettlement schemes
Transport	BRT/LRT, Roads, Bus terminal & Railway station
Open Spaces	City park, Community park, Neighborhood park

Site- I has good connectivity with the other parts of the Ranchi city. A major arterial road runs from east to west along the ridge connecting the Hatia station area to NH23 and the ring road. This road acts as the central spine of the capital city and determines its structure. The Capitol complex, office areas, high court, commercial zones are located such that they can be directly accessed by the central road and can also be accessed by mass transit mode. The entire network of roads has been planned in hierarchy, in such a manner that all the intense land-use zones are within a distance of 400 meters which is 5 minutes’ walk. All the roads are proposed with pedestrian walkways, cycle tracks and landscaped areas along with the carriage ways. This locational advantage also reduces the number of private vehicles and renders the public transport more efficient.

Road Connectivity

The road infrastructure of the state is divided basically into the following three categories.

1. National Highways
2. State Highways & Major District Roads
3. Rural Roads & Minor District Roads

National Highways form the primary system of roads. Similarly, State Highways, Major District roads and other roads provide the secondary system and the Rural Roads and Minor District Roads constitute the tertiary system. The National Highways are the property of the Ministry of Road Transport & Highways, government of India and are maintained by funding from GoI by the Road Construction Department as its “Agency”. The State Highways, Major District Roads and other roads known as “PWD Roads” are the property of Road Construction Department, GoJ. These roads are maintained and upgraded by the Road Construction Department, GoJ.

While there is massive programme to develop National Highways and Rural Roads through the National Highway Development Programme (NHDP) and Pradhan Mantri Gram SadakYojna (PMGSY) respectively, the important links of secondary network that is SH and MDRs are developed primarily through funding from state budget. The other sources of funding are central assistance or other schemes like the state’s share in the central road Fund etc. The present lengths of these roads are given in the table below.

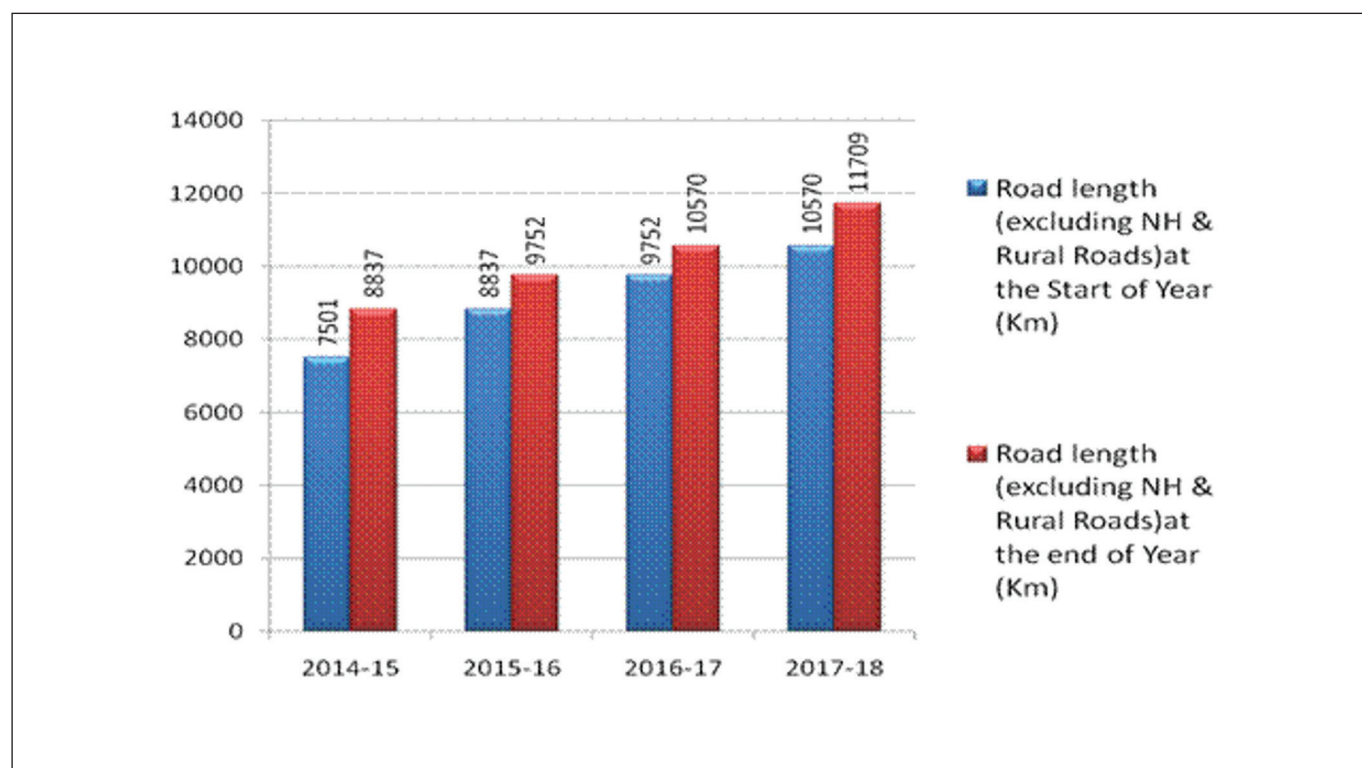
Table 9.2: Road length under various categories

Category	Status	
	As on 01.04.2018	As on 30.11.2018
National Highway		
i) Number	25	33
ii) Total Length	2649	3400
iii) NH with State Govt (km)	1729.6	2480.6
iv) NH transferred to NHAI (km)	919.4	919.4
RCD Roads (in km)		
Total Length	11707.9	12200.6
State Highway (SH)	1231.9	1231.9
Major District Road (MDR)	4845.7	4845.7
Other RCD Road	5630.3	6123.0

Source: The Department of Road Construction, GoJ

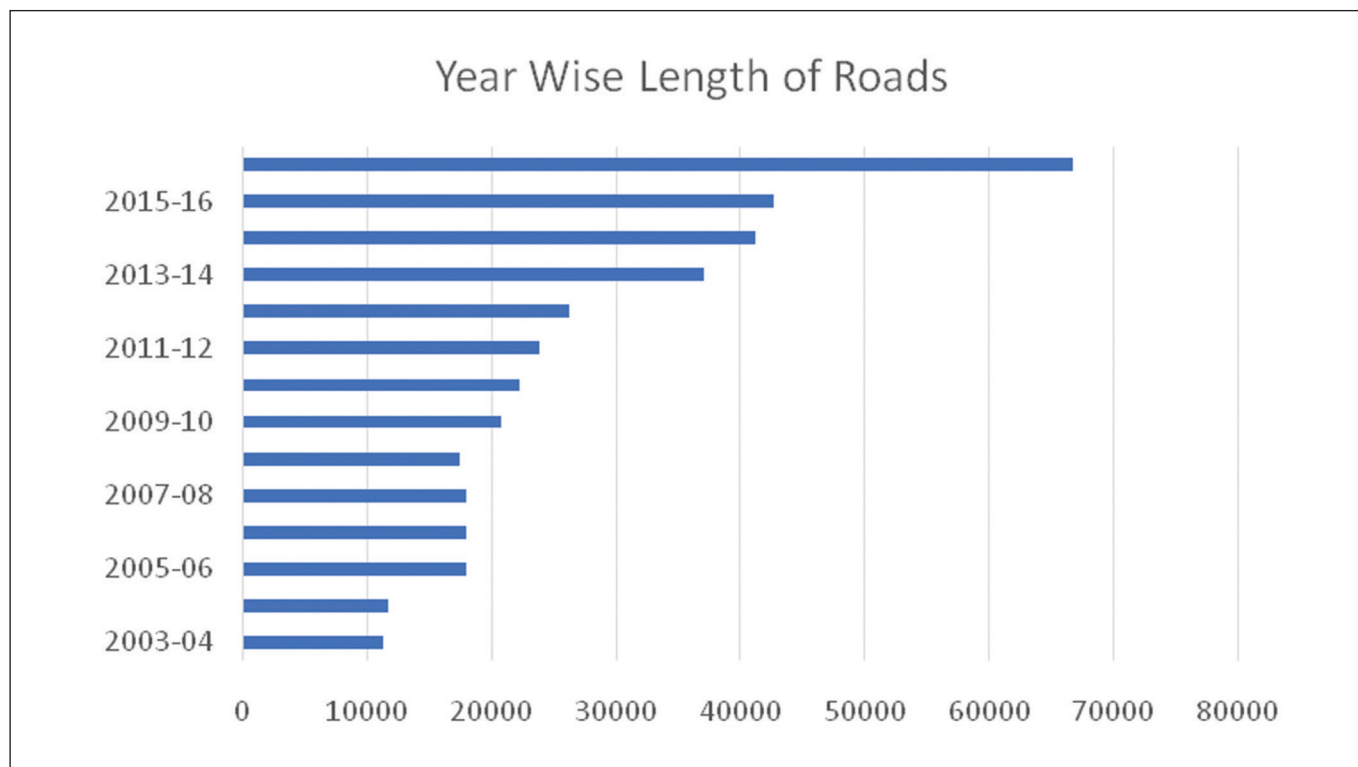
As can be seen from the figures below, the length of roads has been positively and gradually increasing over the years. The infrastructure especially the

road connectivity is the most crucial part of every developmental aspect. The connectivity between the main city and the further located areas is given.

Figure 9.1: Growth of Road length under SH, MDR & Other RCD Road

Source: Road Construction Department, GoJ

Figure 9.2 : Year Wise Length of Roads

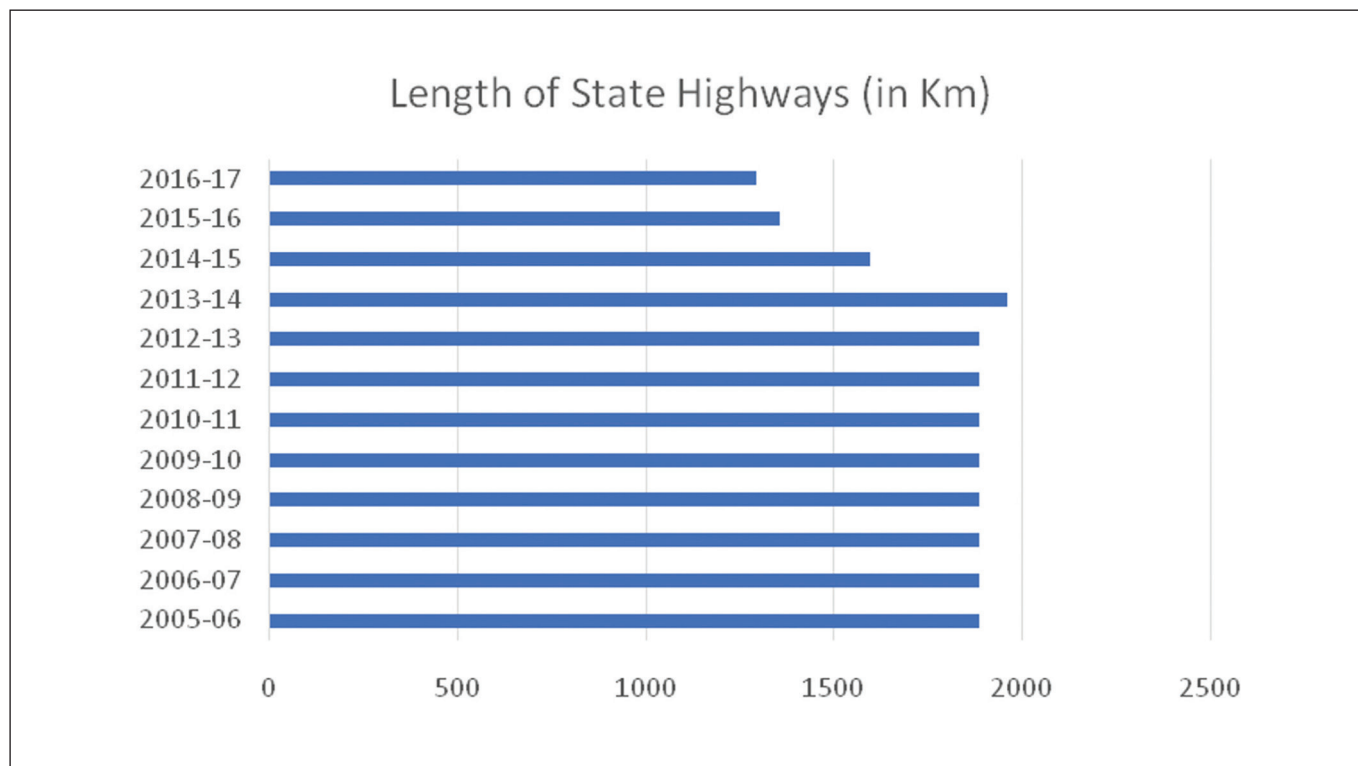


Source: RBI; Handbook of Statistics, 2018

Although the state highways had been constant till the year 2012-2013, there has been progress in the recent

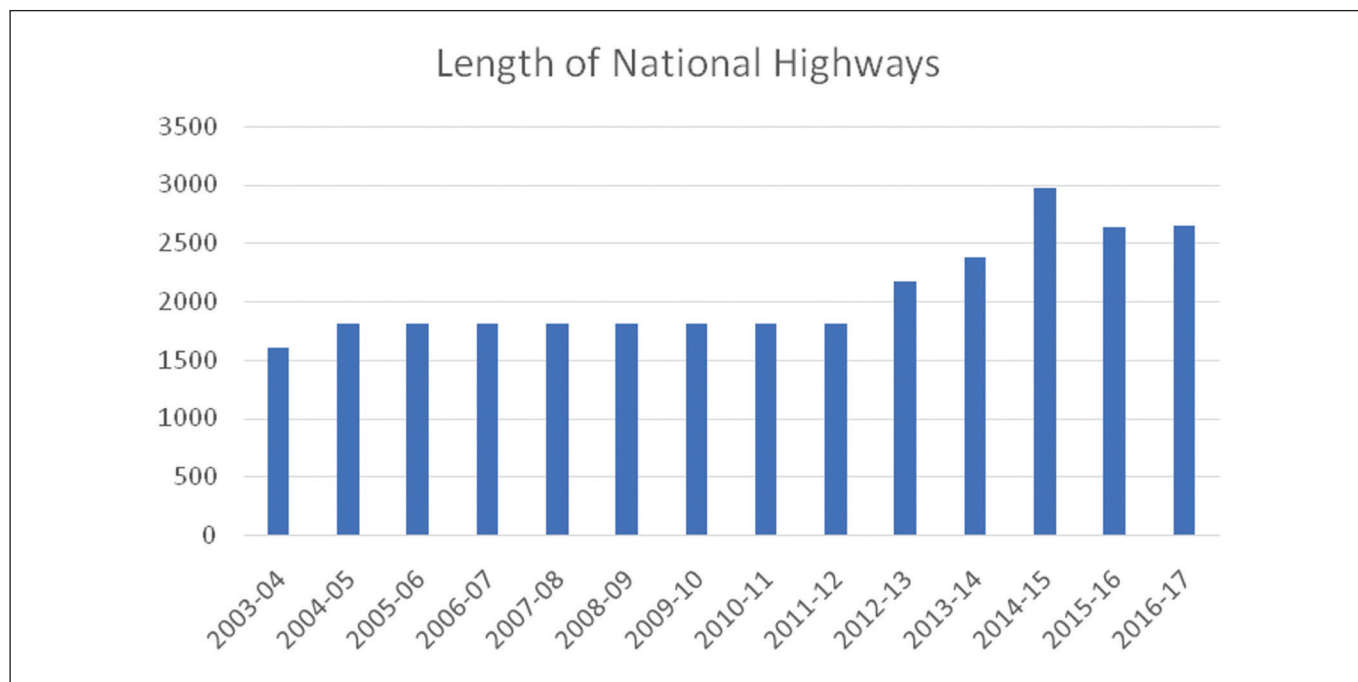
past years. Even the National Highways have been improving gradually.

Figure 9.3 : Year wise Length of state highways



Source: RBI; Handbook of Statistics, 2018

Figure 9.4 : Year wise Length of National Highways



Source: RBI; Handbook of Statistics, 2018

Disadvantages/ Inequalities

At the national level, till the eighties, the primary focus was mainly on increasing the road density, connecting administrative headquarters, places of pilgrimage, tourist centres, industrial and commercial centres etc. Now it also focuses on the aspect of Total Quality Assurance (TQA) such as design standard and specification, implementation and maintenance. It calls for thorough investigation of site conditions, proper planning, environmental consideration in planning, ribbon development, highway safety, Research and Development, Axle – Load Policy and Road Transport technology. It also covers the aspect of energy consideration in road planning i.e. the effect of road condition on the transport cost with the cost of energy increasing steeply. With the advent of PPP

(Public – Private – Partnership), wherein construction of public infrastructure is done by private financing a model of Design – Build- Finance – Operate (DBFO) has emerged. Thus, a shift in the approach of road construction has emerged where road is constructed and maintained by the same agency for a longer period. It thus specifies the ideal condition of the road during this period where both input and output based specifications are applied instead of the normal practice of input based specifications only. This requires the state-of-art technology for planning, construction, maintenance and monitoring.

Road Density

The National Vs Jharkhand indicator of SH & MDRs (Roads excluding NH & Rural Roads) is as follows:

Table 9.3: Road Density: a comparison

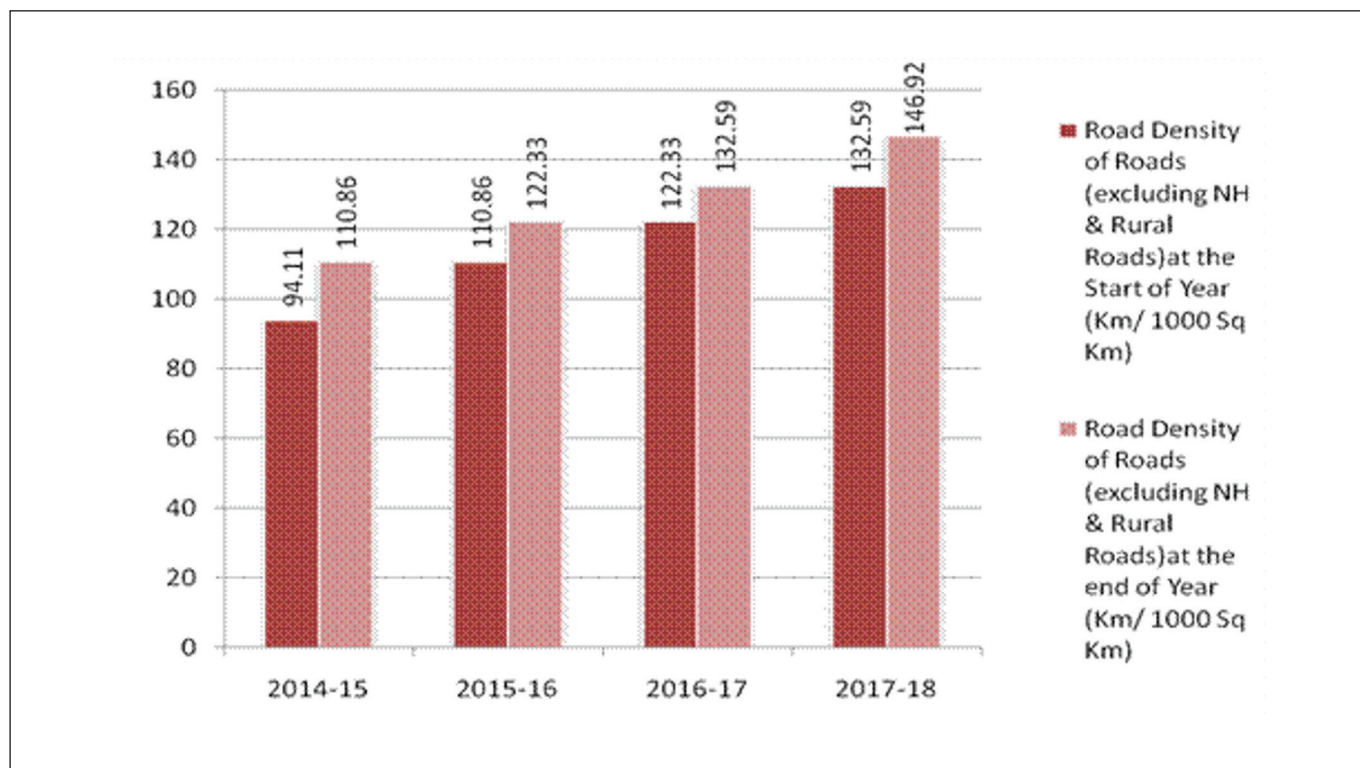
	India	Jharkhand	Remarks
Total Length of Roads	1268287	12200.6 (Approx)	RCD Roads- 12200.6 (SH : 1231.9 Km, MDR : 4845.7 Km & other Roads 6123. Km)
Road Density in terms of Area (Road Km / 1000 Sq. Km) as on 30.11.2018	385.78	153.056	Area of Jharkhand (including water area)- 79700 Sq Km; Area of Country (including water area)-3287590 Sq. km

Source: The Department of Road Construction, GoJ

From the above table, it is evident that the Road Density in Jharkhand is less than the national average. Jharkhand is 38 percent of the national average and it will take time for the state to catch up with the national average. There is a gap of 232 km per 1000 sq km from the national average. In order to catch up with national average a length of around 19050 Km road has to be upgraded to SH/ MDR category. This would require around Rs.

76200 Crore. @ Rs 4.0 Crore per Km. The state has planned to increase road density to 250 km per 1000 sq km. Around 8220 Km of roads needs to be upgraded to SH/ MDR category to reach a density to 250 km per 1000 sq km. If it is phased in 5 years, this will require around 1644 km to be upgraded each year requiring an additional sum of Rs. 6576 crore each year.

Figure 9.5 : Road Density of roads under SH, MDR & Other RCD Roads



Source: The Road Construction Department, GoJ

Table 9.4: Road transferred to RCD for development and increase of density

Financial Year	Length in Km
2018-19 (upto 30.11.2018)	493
2017-18	1139
2016-17	818
2015-16	914
2014-15	1336
2013-14	625

Source: Department of Road Construction, GoJ

Objectives to be achieved

The Road Construction Department has envisaged and is catering to the needs of road sector and accordingly is striving to achieve them through its budgetary resources till now. The objectives of the department are as follows:

- Connecting all District HQs with the capital city of Ranchi by well laid two lane roads
- Replacing all old and distressed bridges on SHs & MDRs
- Four laning of strategic roads & High Density Corridor
- To augment capacity of existing roads of RCD to at least 2 lane capacity- with focus on roads of Tourism importance, Economic/ Industrial importance and Inter State connectivity
- To construct bypasses for major City/ towns of the State
- To minimize at grade railway crossings by constructing ROBs/ RUBs on SH & MDRs

- Widening & strengthening of roads of the State Capital, Ranchi
- To increase road density to a comparable level with the National Road density for such category of roads that is SH, MDR and Other roads (Roads other than NH and Rural Roads)
- Developing institution and human resource capacity for dealing with the challenges of the sector.
- Garnering private resources for development of roads and mobilizing additional resources through off budgetary means

Challenges

In order to keep pace with the present day requirement, Road Construction Department (RCD) essentially requires huge finances and highly skilled and expert human resources to meet the forthcoming challenges in the trade. The most important challenge before RCD is to provide a network of roads, bridges and associated infrastructure so as to provide a basis for the comfortable, economical, safe and fast movement of passengers, goods and trade and to match the demands of the growing economy and urbanization. The department will have to act in a time bound manner to tackle the deficiencies and meet the objectives aimed at meeting future needs.

Human Resource Development (HRD) & Capacity Building

In order to properly utilize the funds, it has been assessed that RCD has to improve the capability for the efficient delivery of programmes. It requires attention on several fronts. The training of available resources is one such critical issue. As such, RCD plans to construct a Training Academy / Institute which would provide training to RCD engineers. It would act as training institute for the training of engineers at the entry level, on-job-sites and provide in –service refresher courses on a continuous basis. In order to develop human resources, a full-fledged Engineers’ Training Academy at Ranchi is proposed.

Quality Assurance System

RCD has a separate “Quality Control Directorate” exclusively for the management of quality by way of defining Quality Policy (QP), Quality Assurance

Plan (QAP) & Quality Audit (QA). Quality- testing laboratories at the field, regional and central levels would also require funding. This will bring the Directorate at par with the best national practice in other states. There would be a fully functional Central Laboratory at Ranchi, five regional laboratories and field laboratories in all the districts/ divisions.

State Highways Authority of Jharkhand (SHAJ)

State Highways Authority of Jharkhand (SHAJ), a corporate body within the organisation is operational. It needs to be strengthened. This needs to be made fully manned and operational. The tentative cost (including the capital and revenue expenditure) is assessed at Rs 200 crore to make the SHAJ fully manned, operational and for its proper functioning.

Revenue Budget

The normal allocation of RCD, on the Revenue (non-plan) budget at present is around 150 crores annually. It is expected that road length, the number of bridges and culverts by 2020-21 (Start of 15th FC Period) would be as follows:

Table 9.5: Proposed Road Construction plan

	Details
Present Road Length	11708 Km
Road length expected by 2024-25	19900 Km
Present No. of Bridges	1000 No
Bridges expected by 2024-25	1300 No
Present No. of Culverts	16000 No
Culverts expected by 2024-25	32000 No

It is assessed that around 19-20 percent of road length per year would be covered by strengthening/ special repair/ surface renewal. Additionally, around 33-34 percent of the roads would be covered by ordinary repair.

Rural Road Connectivity

All- weather road is a basic and primary necessity for the all round development of villages. The prime objective of Rural Development Department (Rural Works Affairs) is to construct, improve, strengthen and maintain village- roads and to construct bridges. Till 2017-18 out of 36827 villages, 26122 villages had been connected by all-weather roads.

Road Density

At present, the density of rural roads in the state is 813.80 km per 1000 square km whereas the national density is 1288.74 km per 1000 square km.

Existing Road

40000 kms of all-weather rural roads have been constructed through PMGSY and state sponsored schemes till date. Roads constructed more than five years ago, require repair and maintenance.

Quality Assurance System & Strengthening of PIU and JSRRDA

At present the Rural Development Department (Rural Works Affairs) has 49 PIU’s, 4 quality-control divisions at field levels and state quality coordinator (JSRRDA) at the head quarter level. Additional fund is required to create PIU’s in the unrepresented areas, to strengthen the existing PIU’s, quality control units and to augment their capacity to meet the present day quality assurance requirements and for the effective implementation of the projects.

ENERGY

Power is the most essential source for any sort of development to take place. Power is the most significant access that can be provided for any industry or any progress to take place. When countries are talking about

a 24-hour power supply internally, it is imperative for the state to fuel up their power-generation capacity and expedite the developmental process of the state.

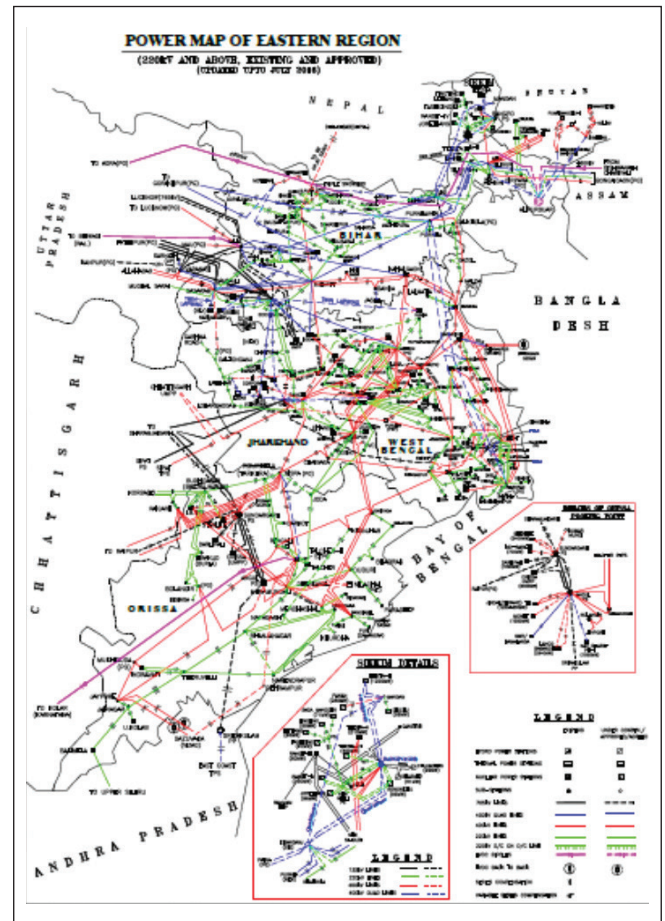
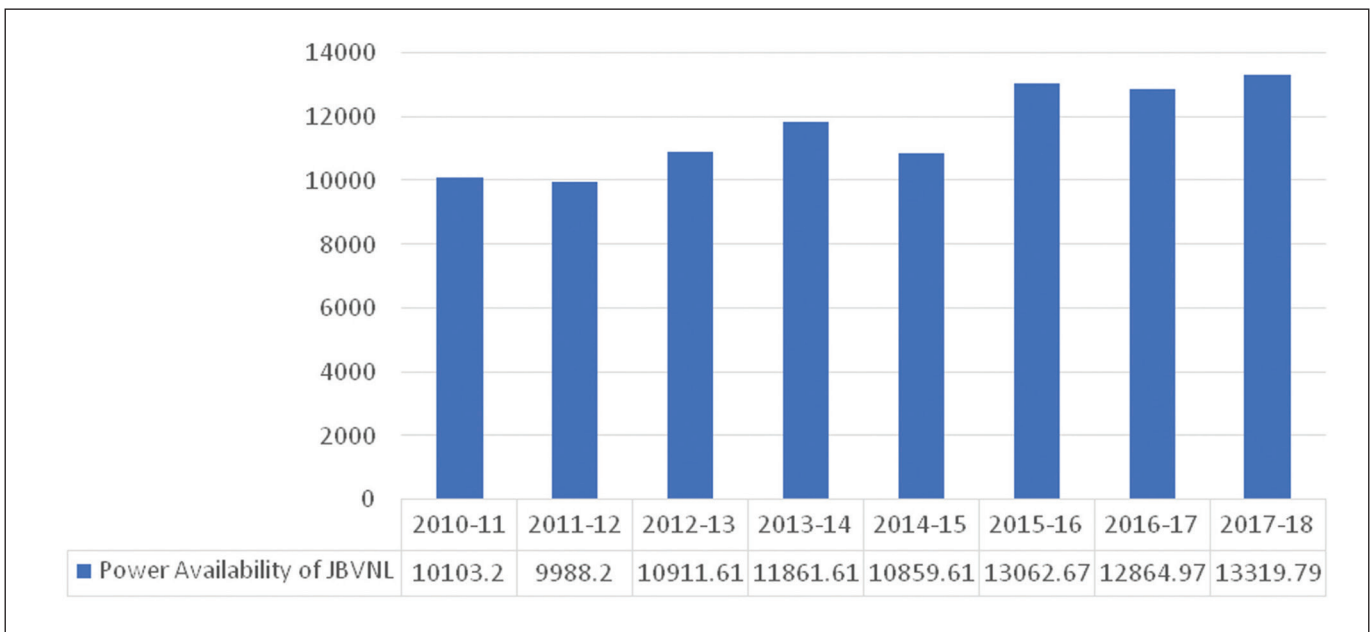


Figure 9.6 : Power Availability of JBVNL



Source: The Department of Energy, GoJ

Electricity Demand & Supply Position

The state has witnessed an improvement in demand-supply gap over the last few years. As can be seen from the table below, the peak demand as well as the peak availability has been increasing year by year. It can be seen that the shortage that was being faced by the

state in terms of peak availability has been decreasing and there is more peak availability than the demand in the last couple of years which is a good sign. It can be attributed to the growing demand which can be seen increasing year by year. The peak shortage has been gradually reducing from 143 MW in 2015-16 to 119 MW in 2017-18.

Table 9.6: Peak Demand and Peak Availability with Shortage (in MW)

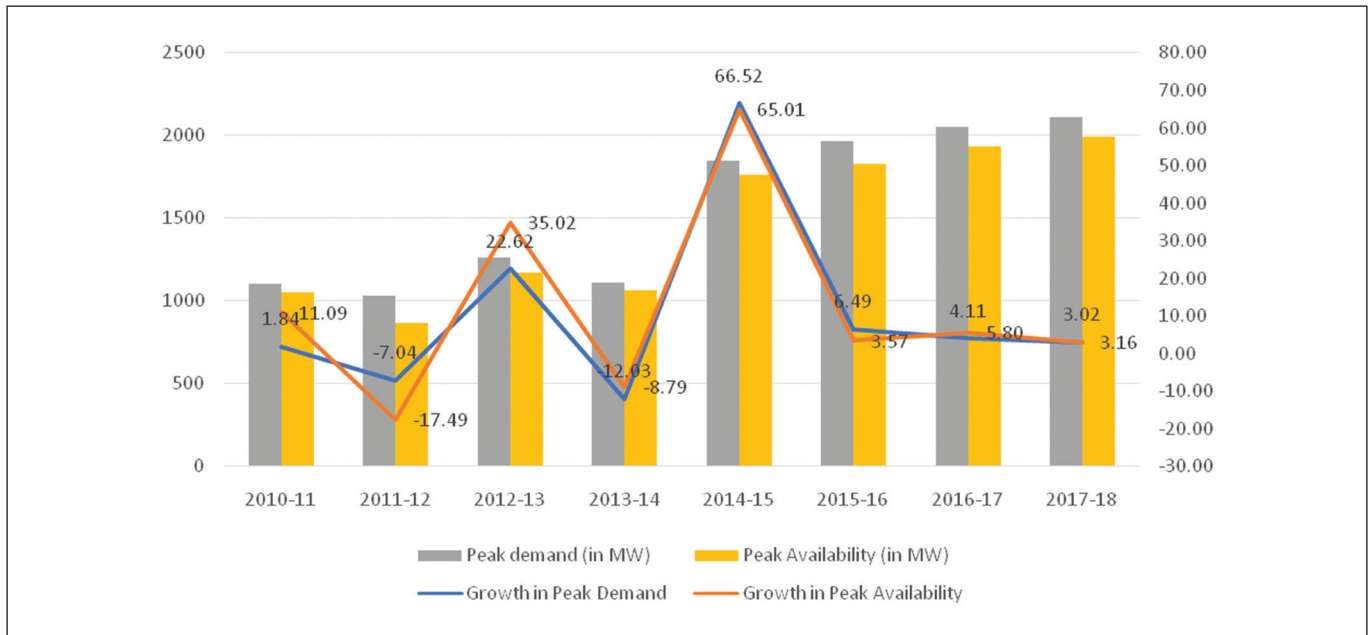
Year	Peak demand	Peak Availability	Shortage
2009-10	1088	947	141
2010-11	1108	1052	56
2011-12	1030	868	162
2012-13	1263	1172	91
2013-14	1111	1069	42
2014-15	1850	1764	86
2015-16	1970	1827	143
2016-17	2051	1933	118
2017-18	2113	1994	119

Source: The Department of Energy, GoJ

It can be seen from the following figure that the state has met the Peak Demand and has ensured that there is

better Peak Availability.

Figure 9.7 : Peak Demand and Availability (in MW) & Growth in Peak Demand and Availability (in percent)



The energy requirement has been increasing at a rapid rate in the recent years. The positive aspect is that the availability of energy has also been increased. The years 2016-17 and 2017-18 have not had a shortage in

energy, rather, the state has a surplus has been a surplus energy-requirement which is very reassuring regarding the power sector of the state.

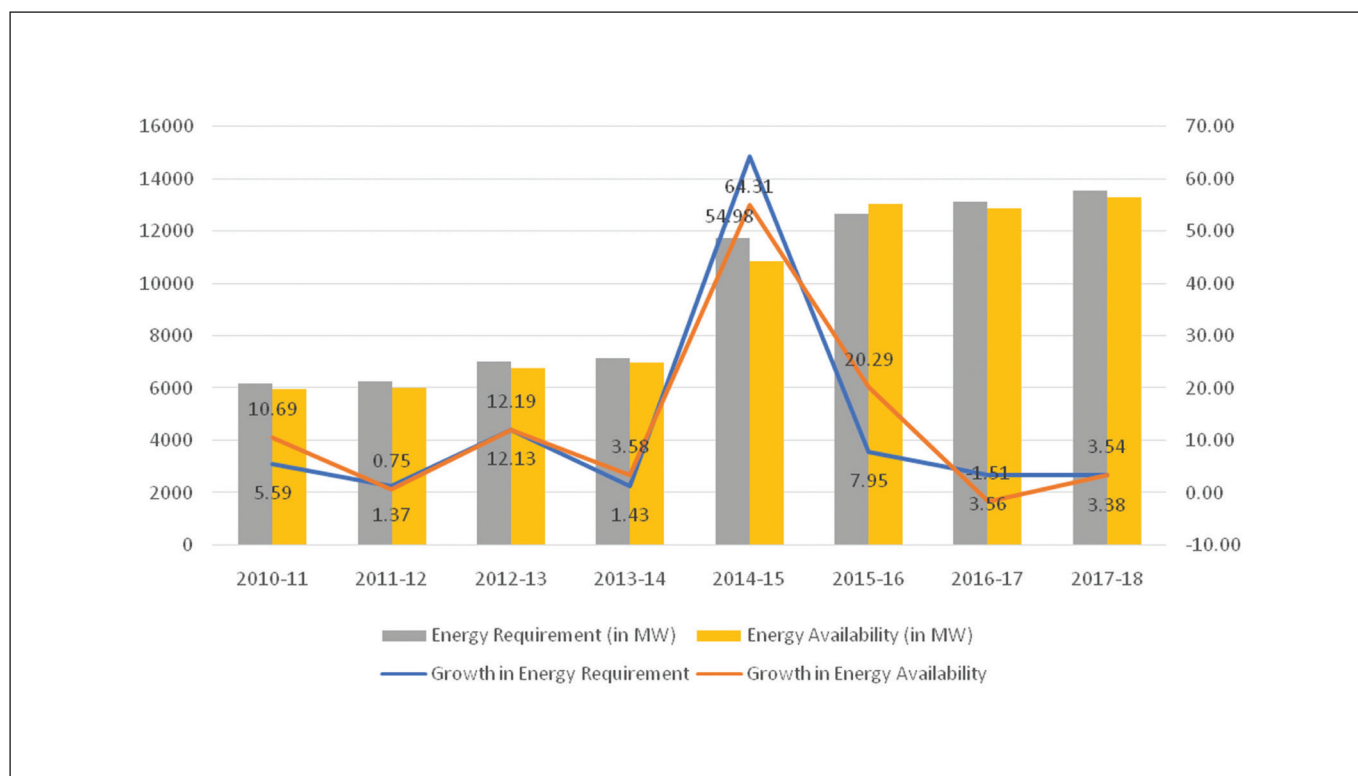
Table 9.7: Energy Availability, Requirement and Shortage (in MU)

Year	Energy Requirement	Energy Availability	Shortage
2009-10	5867	5407	460
2010-11	6195	5985	210
2011-12	6280	6030	250
2012-13	7042	6765	277
2013-14	7143	7007	136
2014-15	11737.01	10859.61	877.40
2015-16	12670.56	13062.67	-392.10
2016-17	13121.16	12864.97	256.19
2017-18	13564.88	13319.79	245.09

Source: The Department of Energy, GoJ

It can be seen from the figure below that the growth rate of energy availability has exceeded or matched the energy required by the state.

Figure 9.8 : Energy Requirement and Availability (in MW) & Growth in Energy Requirement and Availability (in percent)



There are various sources of power supply in the country. Coal is the sole source of thermal power in the state from the State, Private and Central sectors. A

total of 9762 MW was made available in 2018. Besides this, 1503 MW of hydropower energy and 515.9 MW of renewable energy were available as in 2018.

Table 9.8: Installed Capacity (MW) of Power Utilities in Jharkhand

Mode wise Installed capacity (in MW) as in 2018									
Ownership /Sector	Thermal				Nuclear	Hydro	Renewable Source Energy (MNRE)	Grand Total	
	Coal	Gas	Diesel	Total					
State	420	-	-	420	-	130	16	566	
Private	702	-	-	702	-	-	499.9	1201.9	
Central	8640	-	-	8640	-	1373	-	10013	
Sub Total	9762	-	-	9762	-	1503	515.9	11780.9	

Source: The Department of Energy, GoJ

For the financial year 2018-19, the following table depicts the anticipated power supply position of Jharkhand. By the month of March 2018, the peak

demand surplus is 4.08(in MU), which is about 16.67 percent and the energy demand (in MU) is 0.84 which is 0.35 percent.

Table 9.9: Anticipated Month wise Power Supply Position in Jharkhand for the year 2018-19

Month	Peak				Energy			
	Demand (MW)	Availability (MW)	Demand Surplus		Demand (MW)	Availability (MW)	Demand Surplus	
			(MU)	Percent			(MU)	Percent
Dec'17	2012	1852	3.84	14.679	1842	1787	1.32	0.55
Jan'18	2016	1856	3.84	14.679	1841	1796	1.08	0.45
Feb'18	1915	1775	3.36	13.527	1785	1730	1.32	0.55
Mar'18	1953	1783	4.08	16.667	1773	1738	0.84	0.35

Source: The Department of Energy, GoJ

The figures given also show a positive picture of the growth rate of availability, per capita availability and the installed capacity of power. In the growth-rate of the availability of power as can be seen from the figures below, Jharkhand has been doing comparatively better than the all-India growth rate. The average annual growth rate (AAGR) of the availability of power for Jharkhand is 7.0 percent whereas that of the All-India

is 6.3 percent. The growth rate of per capita availability of power is also almost the same for Jharkhand as well as all-India levels. The AAGR of per capita availability of power for Jharkhand is 5.4 percent whereas that of All-India figures is 4.9 percent. However, the installed capacity of power for Jharkhand is lower than the all-India figures, efforts have been taken by the government to raise these levels.

Figure 9.7 a: Power Statistics of Jharkhand (figures in percentage)

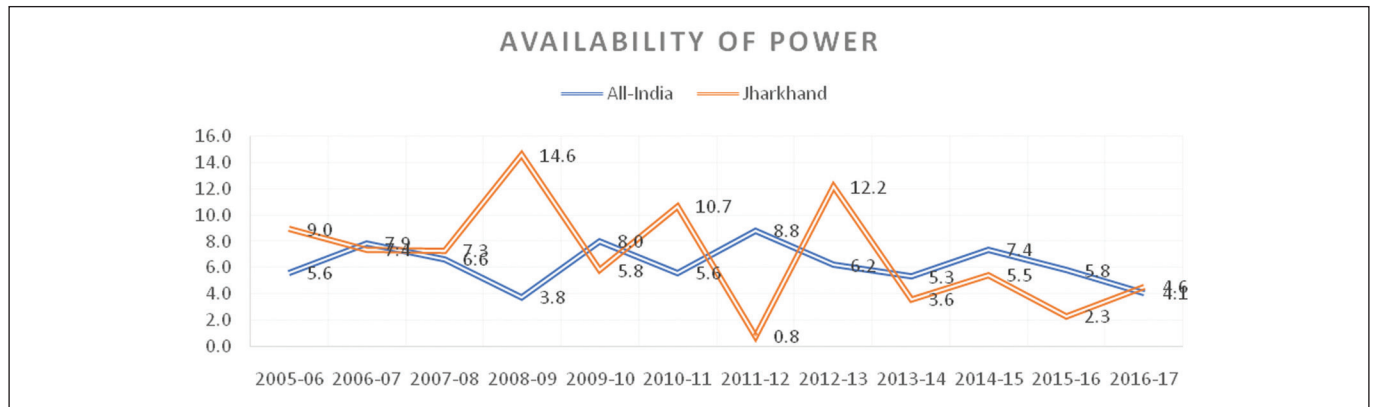
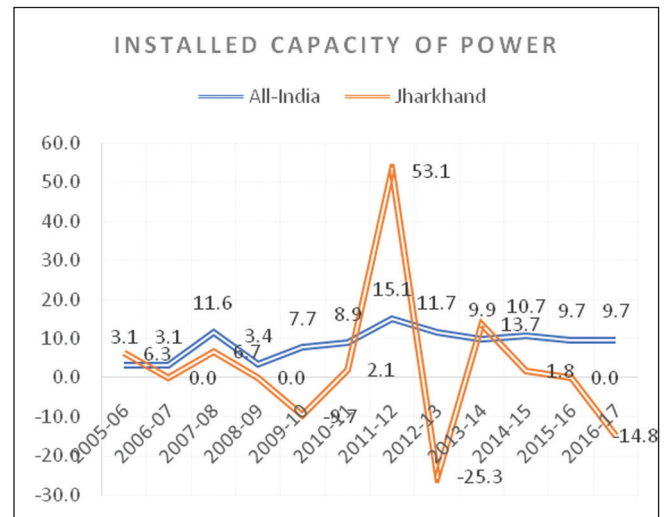
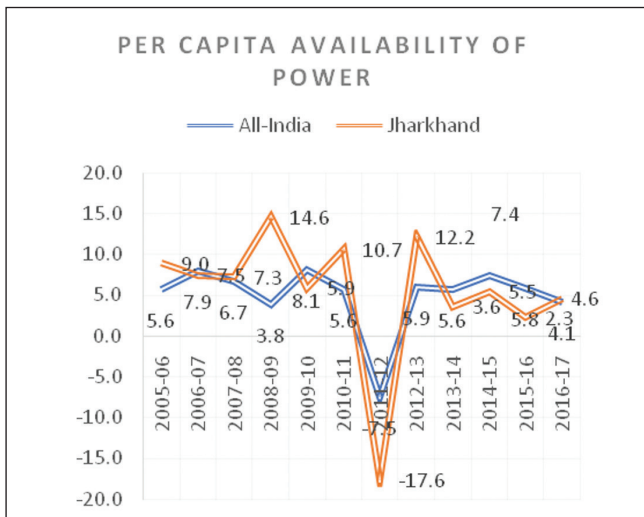


Figure 9.7 a

Figure 9.7 b



Source: Compiled from The RBI, Handbook of Statistics

New Initiatives

- 5 x 800 MW PUVNL TPP, a JV between NTPC and JBVNL is under commissioning, with 3x800 MW to be commissioned by 2020-21 and 2x800 MW by 2022-23
- PUVNL will enable the state to meet its power needs to a large extent and will also help in bringing down the power-purchase as well

New Transmission lines and updates on the existing

- The state transmission utility currently owns Extra High Voltage Transmission system and operates about 4,027 CKM of intra-state transmission lines at 400 kV, 220 kV, 132 kV level in comparison to approximately 2,027 CKM in the year 2001. With a planned capital expenditure of more than Rs.12,000 cr., the transmission system is likely to be 114 grid-substation having a capacity

of 24,530 MW and more than 15,096 cKm of transmission lines in the coming years.

Electrification of Villages and free electricity connections to BPL

DeenDayal Upadhyay Gram Jyoti Yojana (DDUGJY)

Through this scheme, the state is trying to electrify all the unelectrified villages and hamlets. For the financial year 2017-18, 33/11 kV power sub-station, 33 kV distribution line, 11 kV distribution line and low tension (L.T) lines are to being set up for the better transmission of power through the transformer. Keeping this in mind, in rest of the 9 districts, namely Khunti, Simdega, Saraikela-Kharsawan, Chatra, Godda, Pakur, Jamtara, Lohardaga and Latehar; Transformer Repair Workshop and Central Electricity Storage are going to be set up.

The electrification of villages and free electricity connections to BPL households are sanctioned under

Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) have been mentioned in the table below. The village electrification in intensive mode has been completed by the state and the new DDUGJY has also achieved positive growth. As can be seen from the table

below there have been significant achievements in the scheme. The BPL as well as APL connections have also increased. Different kinds of lines such as LT, 11 KV, 33 KV etc are being laid and the achievement has been quite positive towards the new DDUGJY new scheme.

Table 9.10: Status of DDUGJY New Scheme (till 07.02.2019)

STATE: JHARKHAND		UTILITY: JBVNL				Completion Timeline/ Remarks
a.	Sanctioned Project Cost:	Rs. 3722.12 Crore				
b.	Amount Received as Gol Grant:	Rs. 1326.11 Crore				
c.	Amount received as State contribution:	Rs. 367.78 Crore				
d.	Amount received as Loan from FIIs/Others (b+c+d):	Rs. 551.67 Crore				
e.	Expenditure incurred:	Rs. 1897.84 Crore				
Sr. No.	Milestone Name	Unit	Sanctioned Quantity	Revised Quantity	Completed Quantity	
1	Intensive Electrification of Villages (UE)	Nos.	259	383	383	Completed
2	Intensive Electrification of Villages (PE)	Nos.	11,497	18,177	12,508	Minimum infrastructure has been put-up in these 5,669 villages and rest of the electricity infrastructure shall be completed by Jan' 19
3	SAGY Villages	Nos.	19	19	19	Completed
4	Connection to BPL Households	Nos.	3,22,722	3,22,722	3,63,448	Completed
5	Connection to APL Households	Nos	2,98,755	2,98,755	2,98,755	Completed
6	33/11 KV New Substations	Nos.	110	110	3	Apr'19
		MVA	1030	1030	20	
7	Augmentation of 33/11 KV Substations	Nos.	107	107	7	Mar'19
		MVA	535	535	45	
8	Distribution Transformers (DTRs)	Nos.	64336	64336	22036	Village component by Jan'19 and Agricultural component by Apr'19
		MVA	1608.29	1608.29	550.9	

STATE: JHARKHAND		UTILITY: JBVNL				
9	Feeder Segregation	Ckm	30420.61	30420.61	560	May' 19
10	LT. Line	Ckm	16437.07	16437.07	18419	Village component by Jan' 19 and Agricultural component by May' 19
11	11 KV Line (Excluding Feeder Segregation Lines)	Ckm	4014.23	4014.23	8724.43	Completed
12	33 KV Line	Ckm	1077.98	1077.98	25	Apr' 19
13	Energy Meter - Consumer	Nos.	1007118	1007118	231780	Feb' 19
14	Energy Meter - DTR	Nos.	64336	64336	22036	Apr' 19
15	Energy Meter - 11 KV Feeder	Nos.	629	629	629	Completed

Source: The Department of Energy, GoJ

The table given shows the achievement-status of DDUGJY 12th plan scheme. It can be seen from the

table that a significant portion of the sanction has been achieved and the balance- work is in progress.

Table 9.11: Status of DDUGJY 12th Plan

Components	Scope as per Sanction	Scope as per Revised BOQ	Achievement	Balance	Completion Target	Remarks
Villages (UE + PE)	18,515	10,598	10,424	174	Jan' 19	Minimum infrastructure has been put-up in these 174 villages and rest of the electricity infrastructure shall be completed by Jan' 19
33/11 kV New PSS	11	11	1	10		Out of 11, 1 PSS has been completed and in 10 others PSS electrical-Structure work has been completed
33/11 kV Aug	41	20	7	13		Material procurement has been completed. Erection work in process
33 KV Line	219	261	29.5	267.5		Work is in Progress

Components	Scope as per Sanction	Scope as per Revised BOQ	Achievement	Balance	Completion Target	Remarks
11 KV Line	8,868	7,045	4,645	1,195		
LT Line	8,051	14,932	11,967	250		
DTR (25/63 KV)	22,439	21,172	15,781	1,245		Completed
BPL RHHs	4,71,424	3,52,157	352157	-		
APL RHHs	-	1,11,175	83,922	-		

Source : The Department of Energy, GoJ

Initiatives to be taken under Jharkhand Bijli Vitran Nigam Limited (JBVNL) during the financial year 2017-18

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 SAUBHAGYA scheme, JBVNL has taken upon itself the task of providing connection to every household of the state by the end of the calendar year 2018. It is envisaged that with the progress of its mission to release connections to every household of 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 work-execution, to attract and retain talent, identify & groom future leaders from within its ranks, and to provide necessary capability building opportunities to its employees so as to be 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 for 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, which has over the years not only become an integral part of our life but has developed as a platform for raising and filing complaints. Thus, the incorporation of new technologies and serving as the platform for receiving complaints in the existing complaint handling mechanism of JBVNL was inevitable.

State and Central Level Schemes

1. Atal Gram Jyoti Yojana

The scheme was launched in 2015-16 and since then it has targeted to cover 50 villages under every Legislative Assembly and provide 1500 APL households and the BPL households who haven't been covered under the scheme free electrification-facility. For the financial year 2017-18, Rs. 50 crore has been allotted for this scheme and Rs. 100 crore has already been received in the financial year 2015-16 & 2016-17.

2. Tilka Manjhi Krishi Pump Yojana

Tilka Manjhi Krishi Pump Yojana was started to encourage agricultural practices among farmers in the financial year 2015-16. Rs.16 crore has been allotted for the scheme in the financial year 2017-18 and Rs. 100 crore has already been received in the financial year 2015-16 & 2016-17

3. Rural Electrification

Under rural electrification, a separate scheme namely Jharkhand Sampurn Bijli Acchhaadan Yojna has been designed. It aims to strengthen the distribution system in the rural areas of Jharkhand in the next two years. Under this scheme, 50 sub power stations are to be constructed, 53289 service transformers are to be set up and 9013 Circuit K.M. lines are to be provided.

4. Integrated Power Development Scheme (IPDS)

This scheme was launched by the central government in the year 2016. Under this scheme, 40 cities of Jharkhand were selected for setting up new Power Sub Stations, reconstructing and capacity-strengthening of the existing power sub Stations, installation of new service/ distribution transformers, and to change the old/non-functional meters of the beneficiaries are being carried out. It is targeted to be completed by 2019.

Renewable Energy:

World is facing serious threat due to changing climate resulted from Global Warming due to excessive use of fossil fuels. Energy sector being the biggest contributor to Global Warming and ultimately Climate Change needs transformation. Renewable Energy (mainly Solar and Wind) has emerged as most sustainable alternative in a decade and has not remained a niche fuel any more, it has now been main stream. Solar and wind is surpassing even the conventional fuel to be the largest share around the world and transforming the century old energy harnessing technology, which is highly carbon intensive.

Jharkhand Renewable Energy Development Agency (JREDA) with its commitment for the development and deployment of New and Renewable Energy resources for supplementing the energy requirements of the state and to generate public awareness in facilitating deployment of new and renewable energy systems running several programs in renewable energy sector. Several programs and initiatives taken by JREDA for transforming the Renewable Energy portfolio of the State are:

Solar Photovoltaic (PV) Programme:

Under Solar PV Programme of JREDA, there are two types of programs:

- Grid-Connected Solar PV Program.
- Rooftop Solar Power Plants:

MNRE is promoting the Grid Connected Rooftop Plants under the umbrella of National Solar Mission. Solar Plants are installed on rooftops of buildings and helps generate green power locally.

Government Buildings:

Installation of Grid Connected Rooftop Solar Power

Plants on different government buildings across the State. A capacity of 13 MW of Rooftop Solar plant has been installed on 525 nos. of government buildings across the State, work on 501 nos. government buildings has been started.

Electricity Consumers (Non-Government):

Installation of Grid Connected Rooftop Solar Power Plants to electricity consumers (Non-Govt.) across the State with subsidy. In two phases of the program, capacities of 486 kWp and 900 kWp have been installed on different buildings across the State.

Off-Grid Solar PV Program:

JREDA off-Grid Solar PV Program covers distribution of Rural Electrification Program, LED Solar Lantern, LED Solar Street Lighting, High Mast Solar Light System, and Solar Submersible Pumps, Solar Pump is proposed for irrigation purpose to the farmers on priority basis. The details are as given below:

- **Rural Electrification Program:**

Electrification work for 246 nos. villages identified under off grid scheme of DDUGJY had been achieved by December 2017. 325 nos. of villages have been identified under SaubhagyaScheme facing difficulty for electrification using grid power, electrification work has started and will be achieved by March 2019.

- **Solar Study Lamp:**

Un-reliable power hampers studies of students in remote areas of the State letting students to depend on kerosene to continue their studies. Kerosene not only harms environment but also the health of Students. JREDA launched Solar Study Lamp Program to help those students, 3,20,000 nos. of Solar Study Lamps have been distributed amongst the students across the State.

- **Solar Street Lighting System (LED Based):**

Installation of Solar Street light at different public places across the State.

- **Solar Pump Set:**

Distribution of Solar Pumps to the farmers across the State with reliable and continuous supply of power to continue irrigation work, 559 nos. of Solar Pumps have been distributed amongst the farmers. Under SwacchVidlaya Abhiyan, 583 nos. of Solar Powered

Water Pump sets have been installed in Deoghar District.

- **LED based High Mast Lights at Public places and Govt. campuses:**

Supply and installation of LED High Mast lights at public places and govt. campuses.

- **Solar Power Packs:**

Covering remotely located village offices with the pace

of development facing issues with the supply of power by installing Solar Power Packs. 259 nos. had been installed on block offices and 2885 nos. on Panchayat Bhawans across the state.

Solar Thermal

- **Solar Hot Water System:**

Solar Water heater Program for meeting the water heating needs of consumers.

Table : Jharkhand Renewable Energy Highlights with installed capacities at a Glance

Current Scenario(Projects)		Capacity(MW)/ (LPD)
Solar Energy(PV)		
Grid Connected:	Rooftop Solar on Government buildings	13.5
	Rooftop Solar for Private consumers(Market Mode)	1.3
	Ground Mounted Solar Projects	19
Off-Grid Projects:	DDG Projects, Saubhagya, Solar Power Packs, etc.	7
	Solar Study Lamp (3.2 Lakhs nos.)	1.2
Bio mass Projects(Power Plant)		4.3
Total Renewable Energy (Power) (MW)		46.7
Solar Energy (Thermal) (LPD)		1086066

Source: The Department of Energy, GoJ

Transportation

Railways

The Transport Department of Jharkhand is striving to promote road and rail infrastructure support for the transportation of goods and passengers, to promote public transport and an advanced quality of service, to promote modern, energy-efficient and environment & eco-friendly surface transport system and to promote road safety and modern traffic management. At the national level the population to vehicle ratio is 82: 1, whereas in Jharkhand this ratio is 100: 1. The Transport Department is trying to achieve the national ratio regarding vehicles' availability. The population of Jharkhand state is about 3 crores and the density of population is 338 persons per square K.M. There are 24 districts in the state out of which Ranchi, Dhanbad, Bokaro, Jamshedpur, Hazaribagh and Giridih are more densely populated in comparison to the other district-townships.

- Jharkhand ranks 22nd on the aggregate infrastructure index which covers the power, communication and transportation sectors.

The neighboring states such as Chhattisgarh, Odisha and West Bengal rank at 17, 14 and 11 respectively. In terms of the transport- sector- infrastructure, Jharkhand ranks 14th.

- The Transport Department of Jharkhand is striving to promote rail infrastructure-support for the transportation of goods and passengers to promote modern, energy-efficient and environment & eco-friendly surface-transport system.
- Jharkhand is one of the richest mineral zones of the world and boasts of 40percent and 29 percent of Indian mineral and coal reserves respectively.
- Developing rail network is the key to all round growth and economic development of the state as it is a catalyst for growth-oriented public economic & utility services. The rail density of the state (Route Km/1000 Km of Area) is 30 as compared to the neighboring states such as West Bengal (46.6), Bihar (39.6) and U.P (37.31).

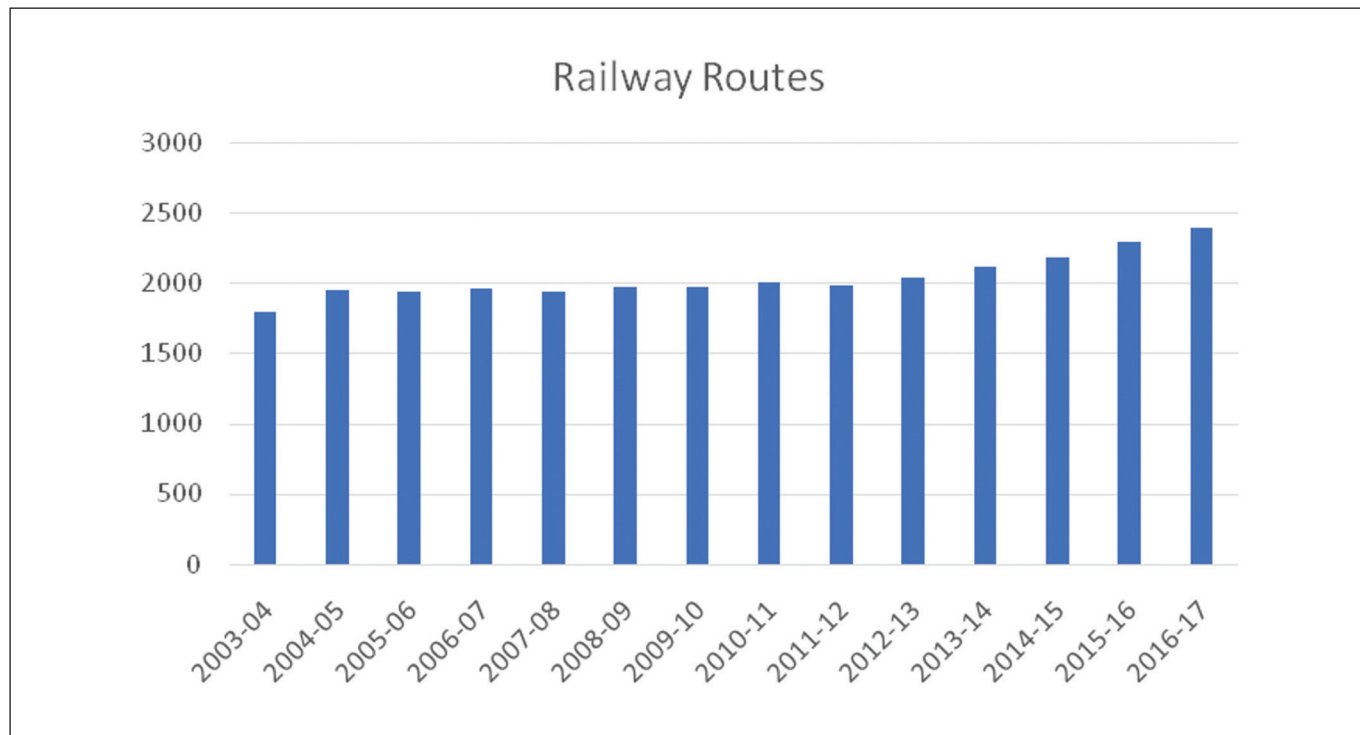
Jharkhand continues to be a major source of freight-earnings for the railways contribute approximately

15% of the total freight earnings but the scope is larger because of the mineral and coal reserves.

There has been a gradual and steady increase in the railway routes that have been adding up to the states’

railway routes. It has been a positive trend and is reassuring to the development of the state that requires better, much improved and more connected areas within the state within as well as connections outside the state.

Figure 9.10 : Year-wise new Railway Routes for Jharkhand



Source: RBI; Handbook of Statistics, 2018

In order to increase the density of rail-network and provide a better-quality of infrastructure and seamless transport system three new railway projects - (1) Nakum-Kandra rail line (106 Km) (2) Parasnath-Madhuban-Giridih (49 Km) and (3) Chitra-Basukinath (38.3 Km) are needed at 50: 50 cost-sharing basis between the state of Jharkhand and the Ministry of Railways against an estimated cost of approximately 3095.00 crores as proposed by the state government. These

projects will help in connecting remote locations and contribute in freight- earnings to the railways through the transportation of coal and iron ore .

In order to increase the availability of rail-network and better quality of infrastructure and seamless transport system three new railway projects related to the transport services are being proposed for which a lump-sum grant of Rs. 3095.00 crores is solicited from the Finance Commission.

Table 9.12:Connectivity Railways

Sl. No.	Name of Schemes	Estimated Cost	Beneficiary Districts.	Remarks
1	Namkum-Kandra Rail line (106 Km)	1500 Cr	Ranchi, Saraikela, Jamshedpur, Chaibasa	It will provide direct rail connectivity from Ranchi to the Industrial city of Jamshedpur and the mineral-rich Saraikela-Kharsawa thereby ensuring an all-round development of that region.

Sl. No.	Name of Schemes	Estimated Cost	Beneficiary Districts.	Remarks
2	Parasnath-Madhuban-Giridih (49 Km)	730 Cr	Giridih, Hazaribagh	Parasnath-Madhuban is a religious tourist destination for the Jain Community. The rail connectivity will help in better communication as well as in developing the region into an International tourist enclave and thus generating employment for local population.
3	Chitra-Basukinath (38.3 Km)	865 Cr	Deoghar, Dumka	It will enhance the rail connectivity in the Santhal Pargana region of Jharkhand. It will also provide rail connectivity to Chitra Coal Mines thereby enabling the direct transportation of coal through rail traffic.

Civil Aviation

The state government is planning to develop the airport in line with the Deoghar airport in Jharkhand for the operations of A-320 category aircrafts wherein out of an estimated 300 crores of CAPEX, 50 crores are being shared by the state government, 200 crores by DRDO and the rest 50 crores or the actual cost by AAI. As per the current scenario, apart from the huge capital involved in land acquisition, infrastructure-development of a domestic airport for the operations of A-320 category aircrafts costs around 400 crores. The state government seeks CAPEX funding for the infrastructure-development through FC XV.

Development of Baliapur (Dhanbad) Airport:

- Presently Dhanbad (Barwadda) airport is having a runway length of approximately 3700 feet. The airport has limited usability due to obstacles in the periphery and also the expansion-constraints.
- The state government has identified a site at Baliapur, which is approximately 22 kms from the district headquarters for the development of an airport.
- As per the feasibility survey of AAI, the government is planning to develop the airport over 642 acres of land in two phases which includes the development over 384 acres in the first phase and the additional 258 acres in the second phase.

- The state government is planning to develop the airport in line with the Deoghar airport in Jharkhand for the operations of A-320 category-aircrafts after signing MoU with AAI.
- The state government is not in a position to meet the expenditure involved in the project. Therefore, the state government seeks the estimated CAPEX funding of Rs 400.00 crores as a grant to be allocated by FC.

Development of Deoghar Airport:

- The government of Jharkhand is developing Deoghar airport along with AAI for the operations of A-320 category of Civil Aircrafts and C-130 category of defence aircrafts.
- The state government has acquired and handed over a total of 653.75 acres of land.
- The total cost of land acquisition is approximately 430 crores whereas the utility shifting cost approximately 30 crores.
- Forest clearance, environmental clearance and NOC from State Pollution Control Board have also been accorded.
- A MoU between the state government and AAI and DRDO has been signed on the 25 th of March, 2017. Construction-work is going on and it is likely to get completed by mid-2020.
- The estimated CAPEX of Rs 300.00 crores for

the infrastructure-development of airport will be shared between AAI, DRDO and the state government; wherein Rs. 200.00 crores will be funded by DRDO, 50.00 crores by the state government and the rest 50.00 crores or the actual expenditure will be borne by AAI.

- g) The state government has also announced to exempt the transferred land from any kind of municipal or property tax. Water and electricity shall also be provided by the state government free of cost for 05 years.
- h) The recurring operational losses shall also be borne by the state government for the period of 10 years.
- i) Airport will be operated by a JVA to be constituted between AAI and the state government having equity in the ratio of 51:49 respectively.
- j) The state requires a grant of Rs. 400 crore from FCXV to develop this airport with an airocity.

Development of Chiyanki (Daltonganj) Airport: Project Background and present status

- a) Presently, Chiyanki (Daltonganj) airport is spread over 48.63 acres of land having a runway length of approximately 2900 feet.
- b) The state government is planning to extend the runway up to 5200 feet for which an additional land of 12.44 acres of raiyati land is to be acquired.
- c) Acquisition of 12.44 acres of the mentioned land is reported to cost around Rs 92.00 crores approximately.
- d) Currently the state government is carrying out the renovation of runway and boundary wall which is estimated to cost around Rs 7.00 crores.

Establishment of Gliding centres at Giridih and

Dhanbad (Barwadda) airports:

Presently the state government is running Jharkhand Flying Institute, Gliding training centre at the Ranchi and Dumka airports.

- a) The centre aims to promote hobby flying, basic glider training, instructor training and adventure sports apart from joy rides.
- b) Training is being conducted by one winch machine operated Sailplane, two Sinus 912 motor gliders and one Stemme motor glider in which the two Sinus 912 motor gliders are allotted by MoCA, GoI through lease by Aero Club of India, New Delhi considering our performance in promoting gliding activities.
- c) Currently 25 trainees are undergoing training and 5 GPL licenses have been issued in the current year 2018 by DGCA, GoI.
- d) Training is being provided at a reasonable fee with 100% exemption to Paharia tribes.
- e) Hangar building is being constructed at the Giridih airport aiming to establish the training centre.
- f) Recarpeting of the runway at Dhanbad (Barwadda) and Giridih airports is being done from the state-government funds.

In view of the load of trainees and the promotion of gliding activities, the state government proposed to open new gliding centres at the Giridih and Dhanbad (Barwadda) airports.

The government of Jharkhand is planning to set up 3 integrated driving training institutes and fitness centres at the unit cost of Rs 40 crores. These institutes will provide training on heavy motor vehicle and specialized vehicles for mining activities. They will also provide services of automated fitness centre.

Table 9.13:Infrastructure Skill Development Schemes

Name of Schemes	Estimated Cost	Beneficiary Districts.	Remarks
Integrated Driving Training Institute & Fitness Centres in Chaibasa, Hazaribagh and Godda districts	120 Cr	All districts of Jharkhand	The location is situated in the mineral-rich areas and the tribal-populated regions for providing better driving skill of mining equipment vehicles and other associated vehicles.

IT & Communications

Information and technology being an essential core component in the development scenario is slowly becoming the backbone of the smooth functioning of any plan or project. There has been a positive improvement in the IT sector of the state. There has

been a gradual increase in the mobile and telephone connections reaching 2,50,59,270 users. There are also 5380 Data and 2830 Voice (IP Phone) users under JharNet. JharNet connects 1700 offices. There is Video-Conference-facility between the state and all the district headquarters under the JharNet project.

Wi-Fi Hotspot in LWE affected Areas :

The Ministry of Home Affairs, govt. of India has approved a scheme for providing network- connectivity in LWE affected areas across the country. A total of 782 sites have been selected for the same in the state. BSNL has been authorised to erect the Mobile towers in those areas. Till now, almost all the mobile towers are functional.

The state govt. has decided to develop those sites as High Speed Internet Hubs. It would benefit the local rural residents as well, there by achieving the objectives of Digital India and Cashless Jharkhand Campaigns. Till now, a total of 640 WiFi Hotspots are on-air.

IT based Infrastructure

JHARNET-

Objective of the Project : To connect the government offices in a closed intranet.

The government of Jharkhand had conceptualized & set up the Jharkhand State Wide Area Network (JharNet) project during the period 2005–2006. This network primarily acts as the communication set up for the government of Jharkhand for improving the administrative effectiveness and efficiency by enabling improvement in the quality of service being provided to the citizens of the state through the improvement of communication interfaces between Government-to-Government (G2G) and Government-to-Citizens (G2C).

The current JharNet network operates at multiple levels with the state capital at Ranchi functioning as the State Head Quarters (SHQ) with the connectivity extending vertically to 24 District Head Quarters (DHQs), further to 37 Sub-Divisional Head Quarters (SDHQs) and also 214 Block Head Quarters (BHQs). Various government offices at SHQ, DHQs, SDHQs and BHQs are connected horizontally to the respective SHQ, DHQs, SDHQs and BHQs.

- JharNet is currently operational by extending the contract-terms of the existing network operator. The current term will end by 31/12/2018.
- JharNet connects all the 24 districts, 38 sub-divisional headquarters and 214 block headquarters.

- There are 5380 Data and 2830 Voice (IP Phone) users under the JharNet. JharNet connects 1700 offices.
- There is Video Conference facility between the state and all the district headquarters under JharNet project.
- It forms the backbone for many applications like treasuries, registration, transport, jail–court video conferencing etc.

Current Status:

- JharNet version 2.0 has been conceptualized. The tender for the selection of System Integrator has been finalized.
- M/s. L&T has been selected as the service provider for JharNet 2.0.
- LOI issued on 16.03.2018 to M/s L&T.
- The contract signed on 06.07.2018. L&T started the implementation of JharNet2.0.

PRAGYA KENDRAS-

There are more than 20302 Pragma Kendras in Jharkhand and these are regularly growing. There is 100 percent Gram panchayat-coverage with the Pragma Kendra.

Table 9.14: Rural and Urban CSC Rollouts Status in Jharkhand

IT Based Infrastructure (Pragma Kendras)' Status			
Rollouts CSCs	16467	3835	20302
Functional CSCS	7692	4215	11907

Source: The Department of IT, GoJ

Table 9.15: CSC Projects in Jharkhand. (2015-16 to 2018-19)

Financial Year	Total CSCs Rollouts (Cumulative)
2015-16	4200
2016-17	11500
2017-18	19600
2018-19	20302

Source: The Department of IT, GoJ

Status of NOFN (BharatNet)

BharatNet : The National Optical Fiber Network (NOFN) is a project initiated in 2011 to provide broadband connectivity to over two lakh fifty thousand (2,50,000) gram panchayats across India. The project includes internet access using the existing optical fibre

and extending it to the gram panchayats. The project was intended to enable the government of India and govt. of Jharkhand to provide e-services and e-applications nationally. The project has already started the first phase and BSNL is providing connectivity in seven districts – Ranchi, Ramgarh, Hazaribagh, Koderma, Bokaro, Deoghar and Sahebganj. Phase 1+ has also started in six districts namely Dhanbad, East Singhbhum, Giridih, Latehar, Lohardaga and Palamau. The rest of the 11 districts are in Bharatnet Phase II. A Special purpose vehicle “SPV” named Jharkhand Communication network Limited (JCNL) under the Department of Information Technology & e-Governance will select the Project Implementing agency (PIA) to implement Bharatnet phase-II in Jharkhand. The present status of Bharatnet project in Phase-I & I+ is mentioned below.

Table 9.16: Status of Bharatnet Project

Item No.	No. of Districts	No. of Blocks	No. of GPs	OFC laying completed in GPs	No. of GPs Lit.	PLB Duct Completed	OFC Completed
Phase-I & I + Scope	13	142	2707	2497	2013	6843 Km	6969 Km
Work Started	13	142	2699				

Source: Department of IT, GoJ

Payment Gateway Status

Payment Gateway: The Department of Information Technology & e-Governance, Govt. of Jharkhand has introduced and implemented the Common Payment Gateway System in the year 2013 for various Departmental Applications which delivers online services to the citizens at their door steps with the help of National Database Management Ltd (NDML). NDML on the behalf of DIT has created a common infrastructure that is used by the states/departments to offer various services through their state portals with a facility to make online payments. The following eleven (11) departments have been authorised Online Payment Gateway System in their applications to collect fee, taxes, royalty etc:

- Registration Department
- Commercial Taxes Department
- Transport Department

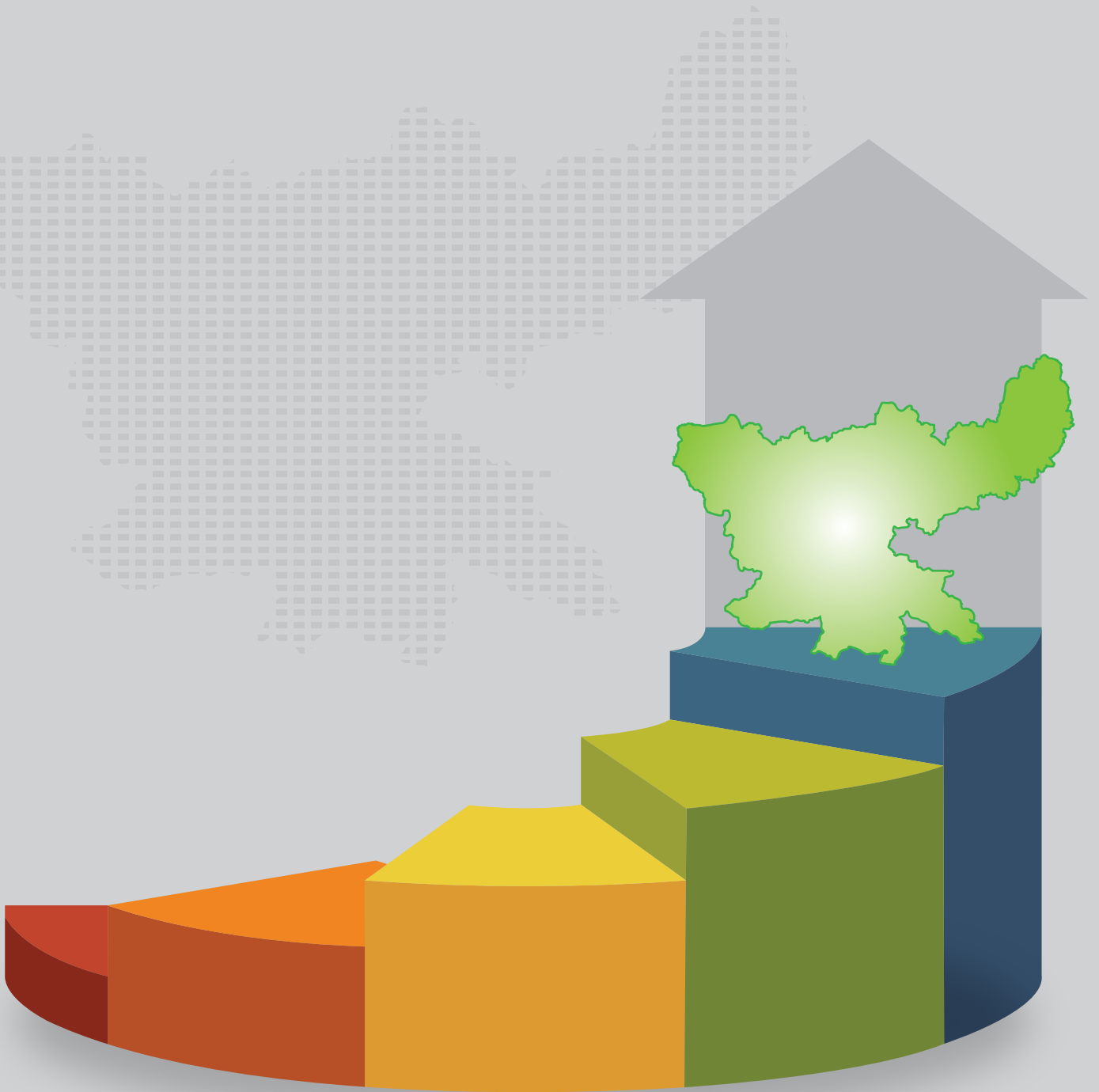
- Exam Board Department
- Jharkhand Generic Portal
- Mines Department
- Urban Department
- Ranchi Municipality
- JAP-IT
- Tourism Department
- Industrial Department

Conclusion

It can be said that Jharkhand is slowly and steadily progressing in the terms of its infrastructural facilities in the state. From improving roads and road-connectivity to improving energy-access and improving railway routes, the IT based infrastructure has also been gradually improving and upgrading itself. The move towards Digital India with the payment Gateway and BharatNet has been given due rewsaponsibility for the technological upgradation of the state.

X

LABOUR AND EMPLOYMENT



Introduction

In a rapidly changing world of innovation and automation, providing adequate skill and employment are challenges for any government. The growing population and aspirations of the youth are both a challenge and an opportunity for the policymakers. With proper policy making and implementations, these challenges can be converted into opportunities which can then translate into a pronounced increase in the standard of living of the citizens. Jharkhand is one of the states which is significantly improving the outcome of its labour market and continuously working to provide the necessary vision and directions to enhance both the quality and quantity of employment in the state.

Labour Market Outcome in Jharkhand

In order to understand the overall labour market situation

in Jharkhand, we use several indicators, the Labour Force Participation Rate (LFPR), Worker Population Ratio(WPR), and Unemployment Rate (UR). LFPR is defined as the proportion of persons/person-days in the labour-force to the total persons/person-days. It is an indicator reflecting the amount of labour supply in an economy. WPR is defined as the percentage of the total number of workers to the total population. On the other hand, UR is the ratio of the number of unemployed persons/person-days to the number of persons/person-days in the labour force, demonstrating the overall employment situation of an economy. The data from the Employment –Unemployment Survey by the Labour Bureau, Government of India for the 4th and 5th rounds are used for our analysis.

Labour Force Participation in Jharkhand

- Improved Labour Force Participation

Figure 10.1 Labour Force Participation in Jharkhand and All India for the 2013-14 and 2015-16.



Source: Employment & Unemployment Survey, Labour Bureau, Government of India

The Labour Force Participation Rate (LFPR) is an indicator of the people who are eligible and able to work. The LFPR for Jharkhand and India is presented in Figure 10.1 for the years 2013-14 and 2015-16. Jharkhand has shown significant improvement in the LFPR compared to the whole of India. In fact, the LFPR in India has declined from 525 per one thousand populations in 2013-14 to 503 per one thousand people in 2015-16. However, for Jharkhand, LFPR has gone up

from 489 to 509 per one thousand populations in 2015-16. It indicates that more number of people have entered into the labour force in Jharkhand compared to overall India during the same period. Thus, in a short span of two years, LFPR in Jharkhand has improved by more than 4 percent. The increase in LFPR in Jharkhand during a time when the national level LFPR has fallen needs careful evaluations.

Table 10.1: Gender Distribution of LPFR in Jharkhand and All India

	Jharkhand		All India	
	Males	Females	Males	Females
2013-14	782	156	744	258
2015-16	774	204	750	237

Source: Employment & Unemployment Survey, Labour Bureau, Government of India

In Table 10.1 we have show the LFPR for males and females, both for Jharkhand and India. The survey shows that, at the all-India level, the male LFPR has increased marginally, but female LFPR has declined considerably. This decline is indeed a cause for concern. However, for Jharkhand, the data shows that the female LFPR has improved considerably between 2013-14 and 2015-16. In 2015-16, the female LFPR stood at 20.4 percent, compared to 15.6 percent during the previous survey in 2013-14. The improvement is a significant achievement for the state. However, Jharkhand needs to brace up more to attract more women into the labour force as it still lags behind the national average of 23.7 percent. The male LFPR declined marginally over the period for Jharkhand.

Table 10.2: LPFR for Transgender Community in Jharkhand and All India

	Rural	Urban	Rural+Urban
Jharkhand	674	592	666
All India	511	412	480

Source: Employment & Unemployment Survey 2015-16, Labour Bureau, Government of India

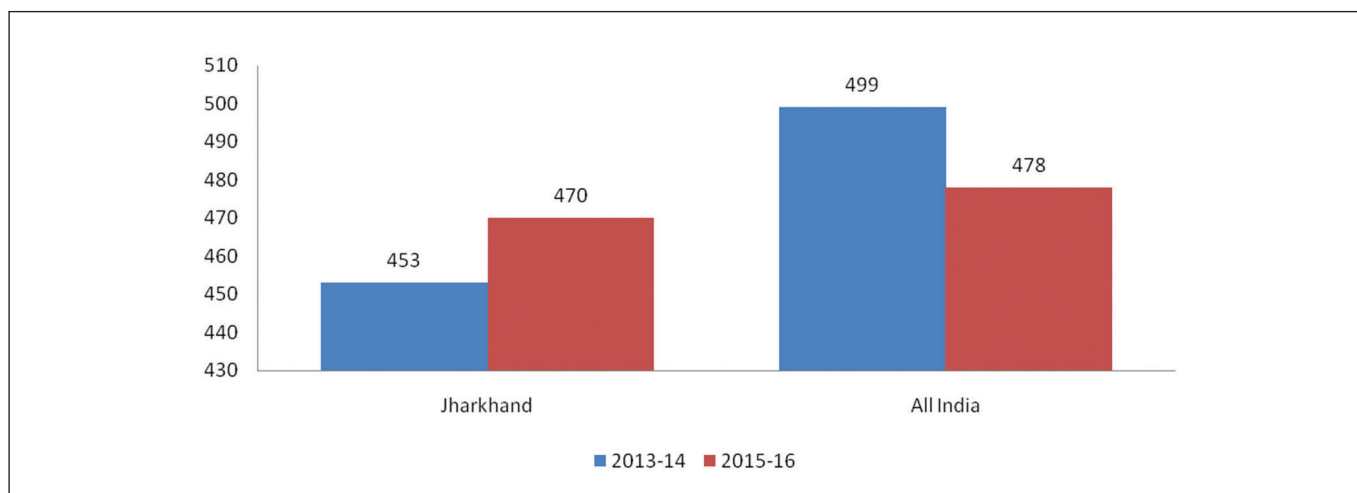
One of the major achievements of Jharkhand has been

to attract the people belonging to the transgender community to the workforce. Jharkhand stands tall in terms of LPFR for the transgender community as their LFPR is much higher in Jharkhand compared to the overall-India number both in the rural and urban areas. The LPFR for the transgender community in Jharkhand stood at 666 per one thousand transgender population, compared to 480 per one thousand transgender populations in India during the survey year 2015-16. Both in the rural and urban areas, the LPFR for the transgender community is higher than the national average.

Worker Population Ratio

The second indicator for the labour- market-outcome is Worker Population Ratio (WPR). WPR just like LFPR also shows a bright picture and continued growth in the employment scenario in Jharkhand. Although WPR in Jharkhand is slightly lower compared to the overall national level (470vs. 478 per one thousand population in 2015-16), WPR increased from 453 to 470 per one thousand population in Jharkhand, whereas at the all India level, this number declined from 499 to 478 per one thousand population from 2013-14 to 2015-16. It indicates that the employment-generation grew faster in Jharkhand when compared to the national average.

Figure 10.2 Worker Population Ratio in Jharkhand and All India for the 2013-14 and 2015-16.



Source: Employment & Unemployment Survey, Labour Bureau, Government of India

Table 10.3: Gender Distribution of WPR in Jharkhand and All India

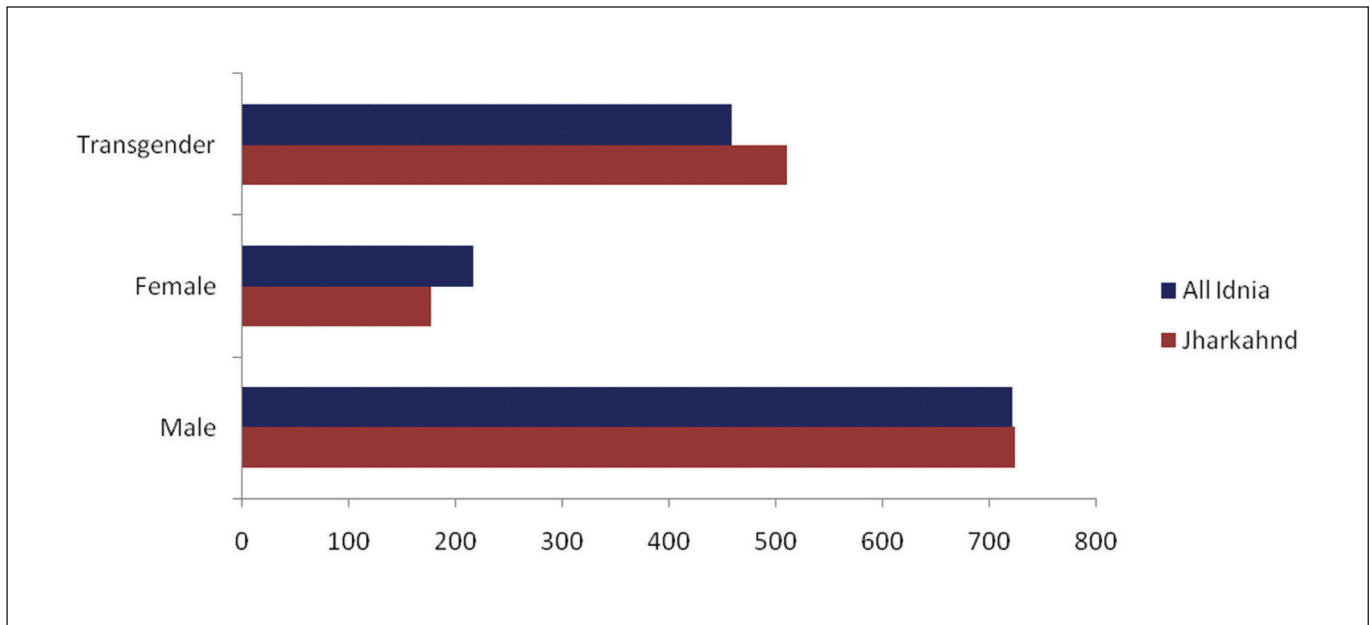
	Jharkhand		All India	
	Male	Female	Male	Female
2013-14	731	138	714	238
2015-16	723	178	721	217

Source: *Employment & Unemployment Survey, Labour Bureau, Government of India*

What is remarkable is the significant improvement in the WPR for the women in Jharkhand. Jharkhand has shown an upward trend in WPR for females. Jharkhand has been able to reduce the gender-gap in a small period. In Table 10.3, we shown the WPR for the males and females, both for Jharkhand and India. At the all India level, male WPR increased marginally, but female WPR

declined considerably from 238 to 217 per one thousand women population. However, for Jharkhand, the data shows that the female WPR improved considerably between 2013-14 and 2015-16. In 2015-16, female WPR stood at 17.8 percent, compared to 13.8 percent during the previous survey in 2013-14. The male WPR had declined marginally over that period for Jharkhand.

Figure 10.3 Gender-wise Worker Population Ratio in Jharkhand and All India in 2015-16.



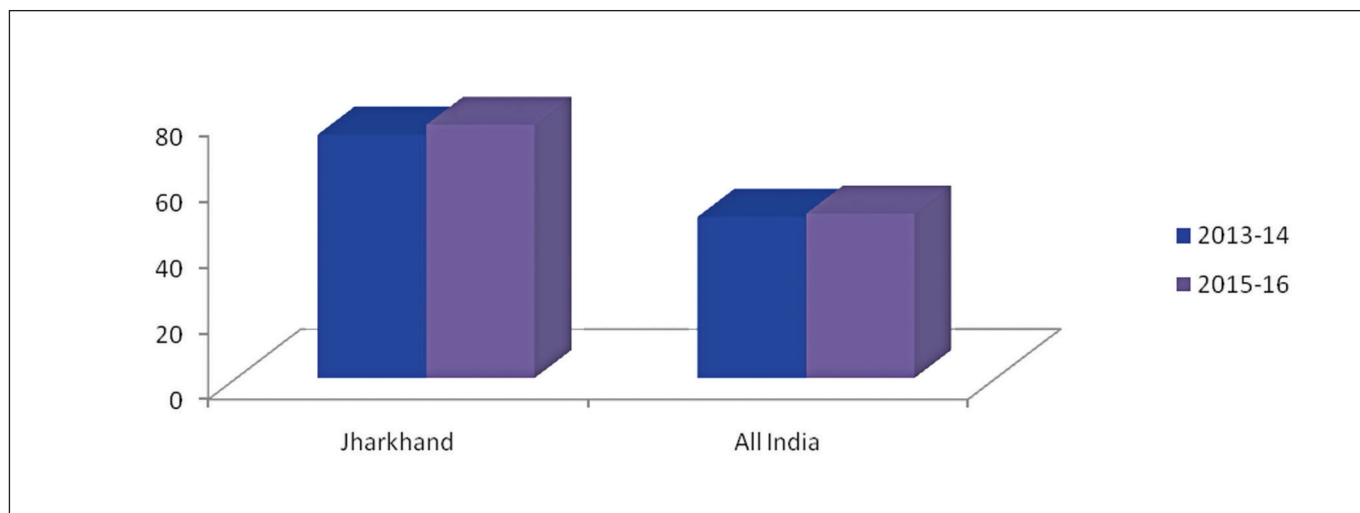
Source: *Employment & Unemployment Survey, Labour Bureau, Government of India*

The 2015-16 round of Employment & Unemployment Survey by the Labour Bureau of India did a commendable job by collecting the labour-market-information for the transgender community. Jharkhand can take pride in the fact that the labour- market survey for this community fares better than the national averages both in the rural and the urban areas. Regarding WPR, the WPR for the transgender community in Jharkhand is 510 per one thousand transgender population (501 and 592, respectively in the rural and urban areas) compared to the national average of 459 (500 and 369, respectively in the rural and urban areas) one thousand transgender population.

Unemployment Scenario: Certain Challenges

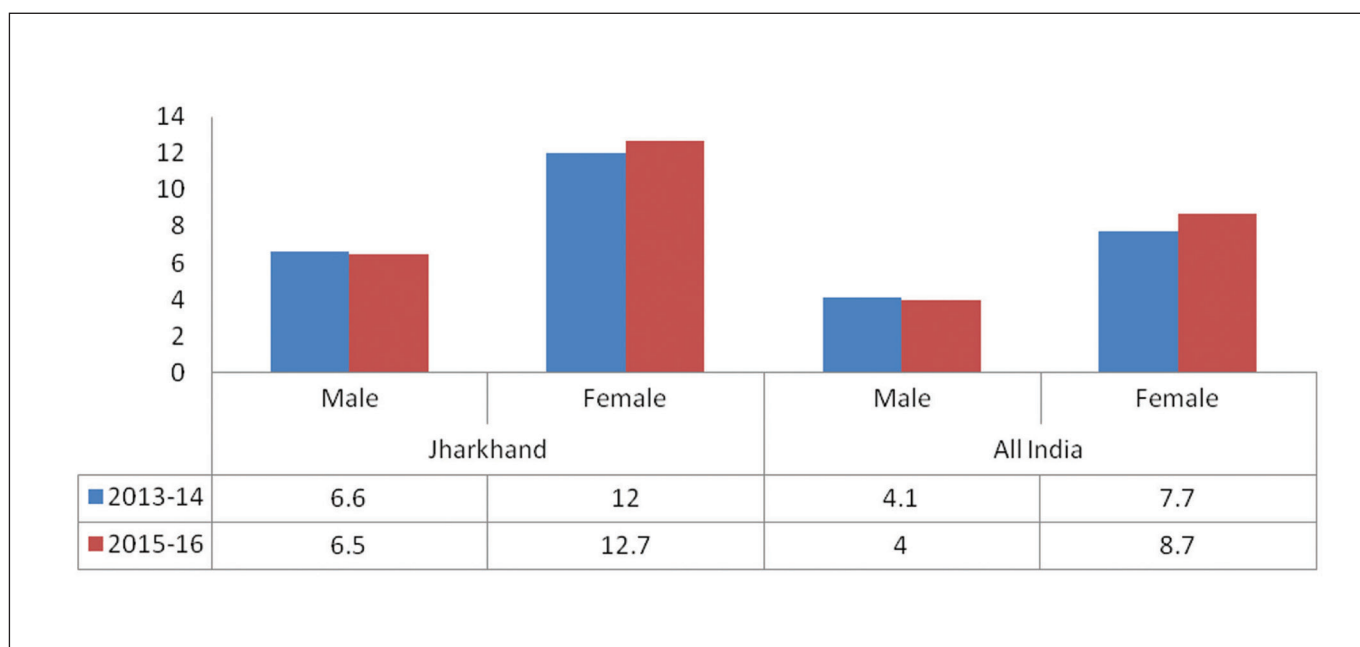
The third important indicator for the labour-market-outcome indicator is the rate of unemployment. The performance of Jharkhand regarding LFPR and WPR has been very good. However, unemployment has remained a major challenge for Jharkhand. In 2013-14, the UR in Jharkhand stood at 7.4 per cent compared to 4.9 per cent at the all India level. However, in 2015-16, the UR increased to 7.7 per cent in Jharkhand compared to the all-India level of 5 per cent. Although the unemployment-rate has shown a general upward trend at the national level, a marginal change of 0.3 percent for Jharkhand is certainly a cause of concern. A higher than national average UR is thus a challenge for the state government.

Figure 10.4 Unemployment-Rate in Jharkhand and All India during 2013-14 and 2015-16



Source: Employment & Unemployment Survey, Labour Bureau, Government of India

Figure 10.5 Gender wise Unemployment-Rate in Jharkhand and All India during 2013-14 and 2015-16



Source: Employment & Unemployment Survey, Labour Bureau, Government of India

The challenge is not only in terms of employing the people of Jharkhand, particularly, its youth but also about bridging the gender gap. The UR for the female population in Jharkhand has gone up to 12.7 per cent in 2015-16 from 12 per cent in 2013-14. However, this is also reflective of what is happening in the country. The female UR at the all-India level had increased to 8.7 percent in 2015-16 compared to 7.7 percent in 2013-14. So, certainly, Jharkhand has performed better when compared to national scenario. We also believe that with the increasing trend of more women coming into the labour-force coupled with the promotion of skill-

development among women, this number is expected to come down significantly when the new data is released.

Table 10.4: Unemployment Rate for the Transgender-Community in Jharkhand and All India

	Rural	Urban	Total
Jharkhand	25.7		23.4
All India	2.1	10.3	4.3

Source: Employment & Unemployment Survey, Labour Bureau, Government of India

The performance of Jharkhand regarding LFPR and WPR for the transgender community has been exceptionally good. However, the same thing cannot be concluded about the UR. The UR for the transgender community in Jharkhand is 23.4 per cent, which is way above the national average of 4.3 per cent during 2015-16. Interestingly, at the national level, the UR for the transgender community in the urban areas is significantly greater (10.3 percent) than in the rural areas (2.1 percent). The UR for the transgender community in Jharkhand stood at 25.7 percent; the same data for the urban areas is not available for Jharkhand, but it is obvious that the URs in Jharkhand are significantly higher. The state government has now got the data to identify the challenges faced by the transgender community and should focus on providing the necessary infrastructural support and create adequate job opportunities to this often socially and economically neglected community.

How does Jharkhand stand relative to the other states in India?

Jharkhand is relatively a small state; however, if we look at the labour-market-performance of the state, Jharkhand is one of the top performing states in India. In order to examine the overall standing among the other states of the country, we create a ranking of the Indian states and the union territories with respect to the LFPR, WPR, and UR using the 5th round of the unemployment-employment survey by the Labour Bureau, Government of India. The first ranking is provided for LFPR in table 10.5. We find that Jharkhand ranks 11th in the overall position and 8th for the transgender community among the 29 Indian states and 7 union territories. The corresponding ranking for the WPR stood at 13th and 9th respectively. These standings of Jharkhand with respect to LFPR and WPR are reflections of the states's strong labour market consequences. However, the ranking for the UR for Jharkhand is a sign of concern. Jharkhand ranks 27th in terms of the UR among the Indian states and union territories. The state government should make every effort to improve its employment-scenario in the state so that its youth are profitably employed. The data for the UR for a large number of states are not available from the survey. Hence we are unable to provide any comparative analysis of the UR for the transgender community in Jharkhand with the rest of the Indian states and UTs.

Table 10.5 : Ranking of the Indian states and union territories- LFPR

State/UT	Overall Ranking	Transgender Ranking
Andhra Pradesh	4	5
Arunachal Pradesh	5	3
Assam	16	17
Bihar	17	14
Chhattisgarh	3	9
Delhi	26	17
Goa	30	NA
Gujarat	21	23
Haryana	20	12
Himachal Pradesh	8	4
Jammu & Kashmir	34	25
Jharkhand	11	8
Karnataka	12	15
Kerala	9	7
Madhya Pradesh	22	19
Maharashtra	13	13
Manipur	29	NA
Meghalaya	2	2
Mizoram	1	1
Nagaland	10	21
Odisha	14	10
Punjab	32	26
Rajasthan	23	24
Sikkim	24	27
Tamil Nadu	7	11
Telangana	6	6
Tripura	25	NA
Uttarakhand	18	15
Uttar Pradesh	27	22
West Bengal	15	20

State/UT	Overall Ranking	Transgender Ranking
Andaman & Nicobar Islands	19	NA
Chandigarh	36	NA
Dadra & Nagar Haveli	33	NA
Daman & Diu	31	NA
Lakshadweep	35	NA
Puducherry	28	NA

Source: The author's own estimates

Table 10.6: Ranking of the Indian states and union territories- WPR

State/UT	Overall Ranking	Transgender Ranking
Andhra Pradesh	4	5
Arunachal Pradesh	6	3
Assam	15	17
Bihar	17	12
Chhattisgarh	3	7
Delhi	22	17
Goa	31	NA
Gujarat	18	23
Haryana	20	11
Himachal Pradesh	9	4
Jammu & Kashmir	34	25
Jharkhand	13	9
Karnataka	8	14
Kerala	16	16
Madhya Pradesh	21	19
Maharashtra	11	13
Manipur	27	NA
Meghalaya	2	2
Mizoram	1	1
Nagaland	10	21
Odisha	12	8
Punjab	32	26

State/UT	Overall Ranking	Transgender Ranking
Rajasthan	23	24
Sikkim	29	27
Tamil Nadu	7	10
Telangana	5	6
Tripura	30	NA
Uttarakhand	19	14
Uttar Pradesh	26	22
West Bengal	14	20
Andaman & Nicobar Islands	24	NA
Chandigarh	35	NA
Dadra and Nagar Haveli	33	NA
Daman & Diu	28	NA
Lakshadweep	36	NA
Puducherry	25	NA

Source: The author's own estimates

Table 10.7: Ranking of the Indian states and union territories - UR

State	Ranking Overall
Andaman & Nicobar Islands	33
Arunachal Pradesh	29
Assam	22
Bihar	20
Chandigarh	10
Chhattisgarh	4
Dadra & Nagar Haveli	7
Daman & Diu	1
Delhi	9
Goa	30
Gujarat	2
Haryana	14
Himachal Pradesh	31
Jammu & Kashmir	25
Jharkhand	27
Karnataka	3
Kerala	32

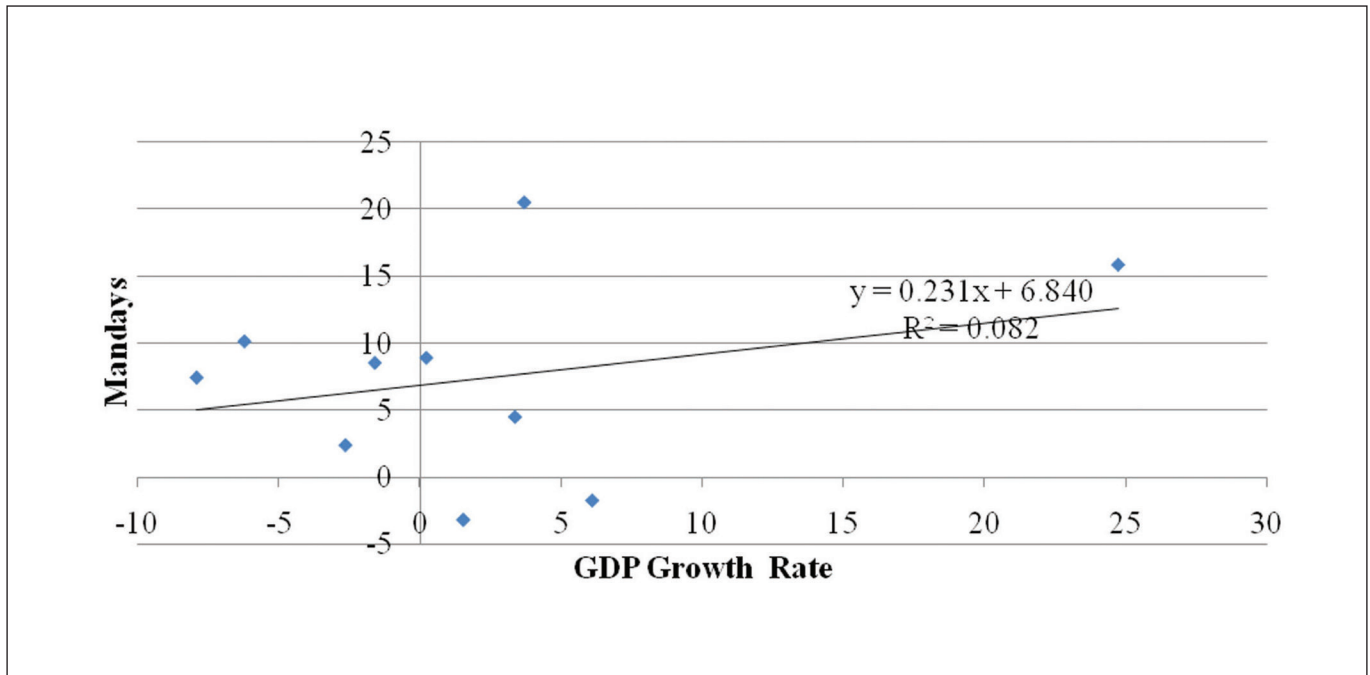
State	Ranking Overall
Lakshadweep	34
Madhya Pradesh	13
Meghalaya	15
Odisha	18
Puducherry	17
Punjab	21
Rajasthan	24
Sikkim	35
Tamil Nadu	12
Telangana	6
Tripura	36

State	Ranking Overall
Uttar Pradesh	26
Uttarakhand	23
West Bengal	16
Andhra Pradesh	11
Maharashtra	5
Manipur	19
Mizoram	8
Nagaland	28

Source: The author's own estimates

Role of SGDP in the creation of man-days in Jharkhand

Figure 10.6 : Relationship between economic growth and job creation in Jharkhand



Source: Staff estimates. The data is from the RBI Handbook of Statistics on the Indian States 2017-18. The sample period is from 2004-05 to 2014-15.

How can Jharkhand create more job opportunities? Apart from the several policies looking into the different dimensions of employment, how does the overall economic growth help in creating more number of jobs in the state? We try to estimate the impact of Jharkhand's economic growth in the generation of employment. Using the data from the RBI Handbook of Statistics on the Indian states 2017-18, our empirical results suggest that a one percentage point increase in

the state GDP can generate 23 per cent additional man days in Jharkhand. The finding implies that the economy of Jharkhand is not only growing but at the same time with increasing level of economic results, it is able to generate more work opportunities for its people. A faster economic growth not only helps in improving the standard of living but at the same time helps in boosting the employment scenario in the state.

How people benefited from the employment generating schemes?

Box 10.1 Major Central Government Employment Generation Schemes

1. Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) enacted in 2005, with the aim to enhance the livelihood-security of the households in the rural areas of the country by providing at least 100 days of wage-employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

2. Prime Minister Employment Generation Programme (PMEGP) was launched in August 2008 with the objective of generating employment opportunities in the rural as well as the urban areas of the country by providing credit-linked subsidies for setting up micro enterprises.

3. Swaranajayanti Gram Swarozgar Yojana (SGSY) came into effect in 1999, with the aim to bring the rural BPL families above the poverty line by organizing them into Self Help Groups (SHGs) through the process of social mobilization, their training and capacity-building, provision of credit-linked subsidies, technology inputs, etc. in order to enable them to be self-employed and take up some income generation activity.

4. Swarna Jayanti Shahari Rozgar Yojna (SJSRY) for the urban areas is a holistic scheme implemented in 1997 with the aim to provide beneficial employment to the urban unemployed and underemployed poor population and to help them set up self-employment ventures and also through providing wage employment by utilizing their labour in the construction of socially and economically useful public assets.

Besides the above-listed schemes, there may be some other schemes of the centre/state governments from which the households have benefitted during the reference period. They are also included under the category of 'Other schemes.'

Table 10.8 : Per 1000 distribution of households who benefited from employment generating schemes (rural and urban)

	MGNREGA	PMEGA	SGSY	SJSRY	Others
Jharkhand	353	30	47	8	90
All India	219	2	4	1	15

Source: *Employment & Unemployment Survey 2015-16, Labour Bureau, Government of India*

Overall at the all-India level, 24 per cent of the households were benefitting from either of the employment generating schemes. Among the benefited households, 91 per cent of the households were benefitted from MGNREGA. At the all India level 21.9 percent of the households were found to have benefitted from MGNREGA followed by 1.5 per cent from the other schemes except MGNREGA, PMEGP,

SGS and SJSRY. However, the figures are much above the national average. In Jharkhand, close to 53 per cent of the households benefited from some form of the employment generating schemes with 35.3 per cent of the households getting employment through MNREGA. These figures clearly show that a large number of households benefited from the employment generating schemes functioning in Jharkhand.

Table 10.9 : Per 1000 distribution of households which benefited from the employment generating schemes (rural and urban) for the Scheduled Caste Population

	MGNREGA	PMEGA	SGSY	SJSRY	Others
Jharkhand	386	42	41	10	125
All India	284	3	3	1	15

Source: *The Employment & Unemployment Survey 2015-16, Labour Bureau, Government of India*

Similar trends have been observed across social groups at the all India level, i.e., 28.4 per cent SC households, 31.3 per cent ST households, 19.8 per cent OBC

households and 14.9 per cent households from other groups benefitted from the MGNREGA during the survey.

Table 10.10 : Per 1000 distribution of households benefitted from employment generating schemes (rural and urban) for the Scheduled Tribe Population

	MGNREGA	PMEGA	SGSY	SJSRY	Others
Jharkhand	472	58	102		98
All India	313	8	13	1	29

Source: The Employment & Unemployment Survey 2015-16, Labour Bureau, Government of India

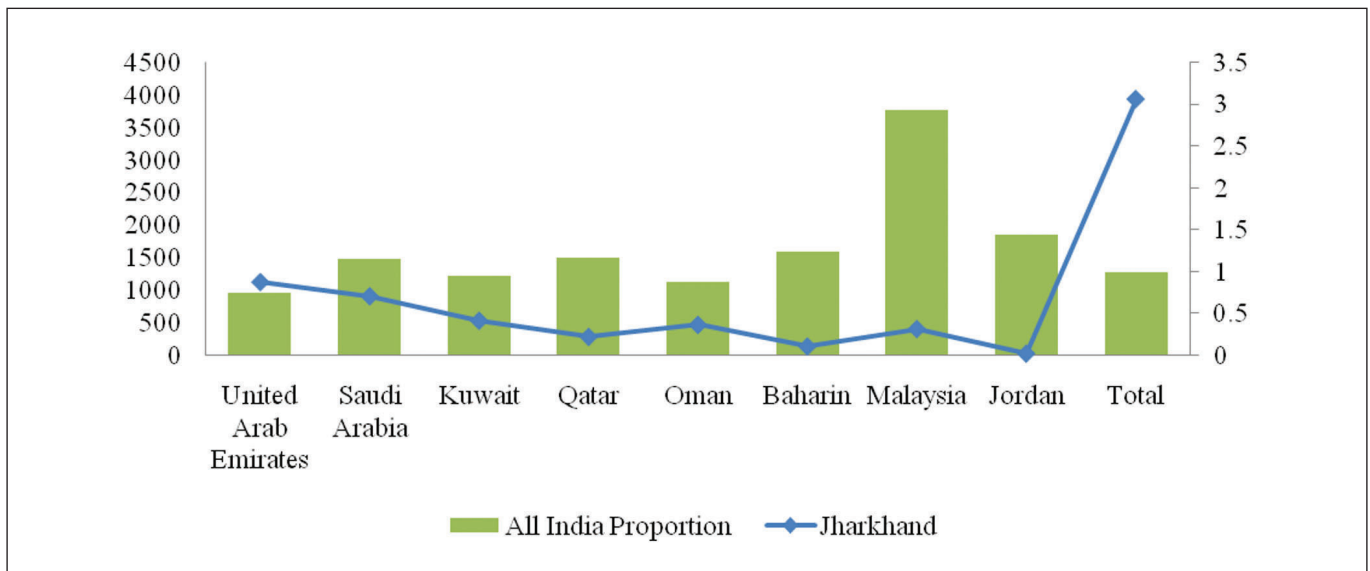
Table 10.11: Per 1000 distribution of households which benefitted from the employment generating schemes (rural and urban) for the OBC Population

	MGNREGA	PMEGA	SGSY	SJSRY	Others
Jharkhand	270	20	16	15	82
All India	198	2	3	1	17

Source: The Employment & Unemployment Survey 2015-16, Labour Bureau, Government of India

Overseas Employment

Figure 10.7 : Emigration of Labour from Jharkhand to different parts of the world



Source: The Ministry of External Affairs, GoI

India is a major country in terms of overseas-employment. India not only attracts a significant number of workers from across the world but at the same time it is one of the major hubs of the origin and transit for workers across international borders. There are over 30 million Indians overseas, with over 9 million of the Indian diaspora concentrated in the GCC region (now known as the Cooperation Council for the Arab States of the Gulf). Over 90% of the Indian workers, most of whom are semi-skilled and unskilled workers,

work in the Gulf region and South East Asia. The data is available only for the workers migrating legally with the Emigration Check Required (ECR) passports and to one of the 18 ECR countries. that is, labour- migration- data is available mostly for the workers who have to register for emigration clearance. This includes those who have not passed Class 10 at least, are leaving via employment visas into specific sectors or the workers who are emigrating for the first time to the GCC region, Malaysia and a few other countries. As per the

data available on the emigration clearance which was collected by the recruiting agents (RA), project experts (PE) and direct recruitment by foreign employees from the ministry of foreign affairs, Government of India, during 2017, a total number of 3,91,024 emigrants were going to the ECR Countries. The total number of such emigrants from Jharkhand stood at 3930. The maximum number (1129) of emigrants from Jharkhand went to the UAE.

Employment Exchange

National Career Service (NCS) is an initiative by the Ministry of Labour and Employment, government of India, to provide quick and efficient career-related services. It was launched on July 20, 2015 to focus on providing the right skills and generating employment. NCS serves as a platform for addressing all career-related needs of the youth and students. NCS provides information related to jobs and manpower-requirement both at the state as well as the national level.

Table 10.12: NCS portal Indicators during 2017-18

Indicators	All India	Jharkhand	Contribution(%)
Total Hitson NCS Portal	3,37,13,925	1,42,578	0.42%
Jobseekers Registration	37,49,854	36,295	0.97%
Employers Registration	1,203	10	0.83%
Skill Providers Registration	318	3	0.94%
Counsellor Registration	902	9	1.00%
Local Service Provider Registration	1,628	18	1.11%
Placement Organization	295	1	0.34%
Government Department Registration	782	14	1.79%

Source: The National Career Services, Ministry of Labour and Employment, GoI

During the financial year 2017-18, close to 1.5 lakh hits were registered from Jharkhand which constituted about 0.42 percent of the total number of hits from the country. Around 36000 jobseekers registered at the NCS portal while the employers registration number stood at 10.

Among the other notable registrations, about 1.11 per cent was available from the local service providers and nearby 1.8 per cent of the total government departmental registrations were from the government departments in Jharkhand.

Table 10.13: NCS Job Posting Indicators during 2017-18

Job Posting Indicators	All India	Jharkhand	Contribution(%)
No. of Job Postings	2,58,976	712	0.27%
No. of Job Vacancy	1,38,737	2,137	1.54%

Source: The National Career Services, Ministry of Labour and Employment, GoI

During the financial year 2017-18, there were 712 jobs posted from the state which contributed to about 0.27 percent of the total number of jobs posted at the all-

India level. Similarly, Jharkhand contributed to about 1.54 percent of the number of job vacancies announced through the NCS portal.

Table 10.14: Genderwise Registration in the NCS during 2017-18

Gender wise Registration	All India	Jharkhand	Contributions(%)
Male	19,63,113	15,772	0.80%
Female	17,86,381	20,521	1.15%
Transgender	360	2	0.56%

Source: The National Career Services, Ministry of Labour and Employment, GoI

Out of 36,295 jobseekers from Jharkhand, more than 50 per cent (20,521) were female while 2 were transgender. The total female registrations from Jharkhand constituted

about 1.15 per cent of the female registrations in the country. At the all India-level, more male jobseekers (52.35 %) registered compared to females.

Table 10.15: Agegroup-wise Jobseekers' Registrations in the NCS during 2017-18

Agegroup-wise Registrations	All India	Jharkhand	Contributions(%)
Upto18	61,551	433	0.70%
18-24	17,71,830	18,236	1.03%
25-34	14,61,787	15,629	1.07%
35-44	3,27,081	1,413	0.43%
45-54	1,04,818	520	0.50%
55-64	18,799	62	0.33%
Above64	3,981	2	0.05%

Source: The National Career Services, Ministry of Labour & Employment, GoI

If we look at the age-profiles of the job seekers who registered through the NCS both from Jharkhand and at the all-India level, interestingly we observe that more than 50 percent for the registered job seekers from

Jharkhand belonged to the age group of 18-24 followed by the age group of 25-34. However, at the all India level, around 47 percent of the job seekers belonged to the age group of 18 to 24.

Table 10.16: Educational Qualifications of the Job seekers' Registrations in the NCS during 2017-18

Educational Qualification-wise Registrations	AllIndia	Jharkhand	Contribution(%)
No Schooling	66,582	7	0.01%
Upto 9th	17,29,905	32,006	1.85%
Matriculates	2,58,324	222	0.09%
11thPass	6,293	30	0.48%
12thPass	3,47,510	758	0.22%
Diploma	20,775	294	1.42%
Graduate	4,19,614	1,960	0.47%
Postgraduates	1,04,382	489	0.47%
Ph.D holders	1,395	8	0.57%

Source: The National Career Services, Ministry of Labour & Employment, GoI

Table 10. shows the educational qualification of those jobseekers who registered through the NCS portal. Interestingly, in Jharkhand, most of the jobseekers (close to 88 percent) had education only till the 9th standard. This constituted about 1.85 per cent of the total number of job seekers possessing the same educational

qualifications in the country. However, at the national level, this is less than 50 percent of the job seekers registered through the NCS portal. Only 5 percent of the jobseekers were graduates in Jharkhand while at the national level this rose to 11.2 per cent.

Table 10.17: Employment Status of the Jobseekers' Registration in NCS during 2017-18

Employment Status wise Registration	AllIndia	Jharkhand	Contribution (%)
Unemployed	18,26,407	29,862	1.64%
Employed	13,29,213	2,339	0.18%
Self-Employed	85,452	835	0.98%
Apprentice	3,207	23	0.72%
Not Specified	4,80,036	2,993	0.62%

Source: The National Career Services, Ministry of Labour & Employment, GoI

Most of the jobseekers in Jharkhand classified themselves as unemployed. The same was true at the national level as well.

Table 10.18: Employers' Information in the NCS during 2017-18

Employer's Details	AllIndia	Jharkhand	Contributions (%)
Economic Census	5,51,119	3,371	0.61%
LIN (Labor Identification Number)	9,28,189	18,145	1.95%
MCA (Ministry of Corporate Affairs)	239	5	2.09%
MSME	2,937	49	1.67%
Others	14,697	5	0.03%

Source: The National Career Services, Ministry of Labour & Employment, GoI

18145 of the employers who registered from Jharkhand had labour identification numbers while 49 were MSME. The number of MSME at the national level stood at 2937.

Table 10.19: Job posting details at the NCS during 2017-18

Jobs by Qualification	All India	Jharkhand	Contribution (%)
10th	568	6	1.06%
12th	3,554	9	0.25%
Diploma	1,227	1	0.08%
Graduates	92,686	192	0.21%
No Schooling	1,90,002	432	0.23%
Ph.D holders	238	8	3.36%
Postgraduates	9,965	61	0.61%

Source: The National Career Services, Ministry of Labour & Employment, GoI

Most of the jobs that were posted in the NCS portal had mentioned their educational qualifications as no schooling. The numbers were 432 from Jharkhand and 1,90,002 at the national level. The number of jobs posted which required graduates stood at 192 in Jharkhand,

while the same stood at 92,686 at the national level. The analysis from the educational qualifications of the jobseekers as well as the jobs posted suggests that most of the jobs are related to semi-skilled or low-skilled jobs.

Table 10.20 : Sectoral Jobposting in the NCS during 2017-18

Jobs by Sector	All India	Jharkhand	Contributions (%)
Accommodation And Food Service Activities	2,180	10	0.46%
Administrative And Support Service Activities	811	4	0.49%
Agriculture, Forestry, And Fishing	354	0	0
Arts, Entertainment And Recreation	34	0	0
BPO & IT	150	1	0.67%
Chemical and Pharmaceutical industry	16	0	0
Construction	6,276	37	0.59%
Education	26,444	101	0.38%
Electricity, Gas, Steam And Air Conditioning Supply	1,032	4	0.39%
Financial And Insurance Activities	25,346	134	0.53%
Human Health And Social Work Activities	7,030	28	0.40%
Indian Armed Forces	249	1	0.40%
Information And Communication	1,25,587	73	0.06%
Manufacturing	10,392	62	0.60%
Mining And Quarrying	1,034	6	0.58%
Not Specified (Industry)	772	10	1.30%
Other Service Activities (including Placement and Employment Agencies)	70,587	134	0.19%
Professional, Scientific And Technical Activities	3,210	6	0.19%
Real Estate Activities	1,401	2	0.14%
Transportation And Storage	3,798	4	0.11%
Travel and Tourism	19	0	0
Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles	10,962	91	0.83%

Source: The National Career Services, Ministry of Labour & Employment, GoI

Table 10.19 shows that most of the jobs posted in Jharkhand are related to the Financial and Insurance Activities and Other Service Activities (including Placement and Employment Agencies), followed by Education and Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles. Most of the jobs posted at the all-India level are related to Information and Communication.

Recruitment camps and Job fairs

The government of Jharkhand regularly organizes recruitment camps and employment fairs to create employment opportunities. As per the records from the Directorate of Employment and Training, Government of Jharkhand, 156 such camps were organized during 2017-18 and during the ongoing financial year, this number was reduced to 125.

Table 10.21 : Number of Recruitment Camps organized during recent years

Sl. No.	Financial Year	No. of organized Recruitment Camps
1	2017-18	156
2	2018-19	125

Source: The Directorate of Planning & Training, Department of Labour, GoJ

These recruitment camps helped in creating jobs and camps. During the 2018-19 period, so far, 2492 people in 2017-18, 4826 people were recruited through these have been recruited through such camps.

Table 10.22 : Number of Selections through the Recruitment Camps

Sl. No.	Financial Year	No. of Selections
1	2017-18	4826
2	2018-19	2492

Source: The Directorate of Planning & Training, Department of Labour, GoJ

The district-wise selection of applicants during the employment fairs for the financial years 2017-18 and 2018-19 are given below. In recent years these fairs have been successful in providing employment opportunities to the people of the state.

Table 10.23 : District-wise Selection during the Employment Fairs

Sl. No.	Name of the Districts	FY 2017-18		FY 2018-19	
		No. of organized Employment Fairs	No. of Selected applicants	No. of organized Employment Fairs	No. of Selected applicants
1	Ranchi	03	1875	01	290
2	Khunti	04	1215	01	231
3	Lohardaga	03	758	01	68
4	Daltonganj	03	1161	01	255
5	Garhwa	03	873	01	00
6	Latehar	02	547	01	90
7	Hazaribagh	02	744	01	194
8	Ramgarh	02	674	01	213
9	Gumla	03	651	01	109
10	Simdega	03	790	01	83
11	Dhanbad	03	950	01	137
12	Bokaro	03	1222	01	152
13	Koderma	02	504	01	137
14	Chatra	03	410	01	11
15	Giridih	03	931	01	112
16	Jamshedpur	04	1828	01	333
17	Saraikela-kharsawan	05	924	02	120
18	Chaibasa	03	360	01	00
19	Dumka	03	1453	01	113

Sl. No.	Name of the Districts	FY 2017-18		FY 2018-19	
		No. of organized Employment Fairs	No. of Selected applicants	No. of organized Employment Fairs	No. of Selected applicants
20	Jamtara	02	460	01	148
21	Deoghar	01	311	01	93
22	Godda	03	504	01	02
23	Sahebganj	02	1420	01	161
24	Pakur	02	1032	01	190
Total		67	21597	25	3242

Source: The Directorate of Planning & Training, Department of Labour, GoJ

Overall, during 2017-18, 21597 applicants were selected during the 2017-18 financial year in the 24 districts of Jharkhand, whereas till the time of writing this report,

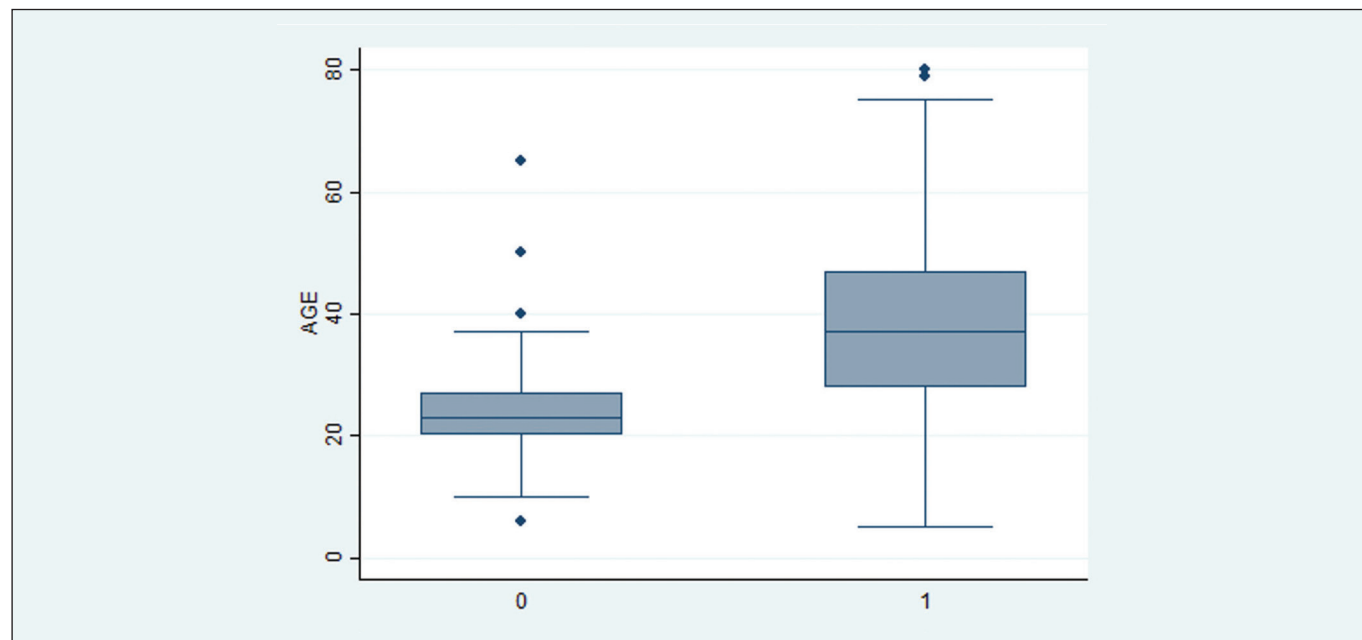
3242 such applicants were selected during the current fiscal year.

Table 10.24 : Selected no. of applicants through the RojgarMela in Jharkhand during recent years

Sl. No.	Financial Year	No. of Selections
1	2017-18	21597
2	2018-19	3242

Time to reap the demographic dividend

Figure 10.8 : Age Distributions of the people of Jharkhand classified as employed and unemployed



Source: The Estimates by staff members, data from NSSO

If we carefully, look at figure 10.8, we find that the median age of the people who are employed (indicated by 1) is around 35, while those who are unemployed stood at around 23. Three-fourth of the unemployed people are in the age group of 20 to 25. The finding

is interesting. Given a significant number of young population in the country, youth unemployment is a cause of concern. The government should focus on providing these people profitable employment through continuous skill-development and work opportunities.

Jharkhand Skill Development Policy- 2018 (To be added)

The government of Jharkhand is committed to enabling the growth of the state through developing skills among the youth. A skilled and high productivity manpower-base is crucial to the growth of manufacturing, services, and agriculture. It is also a critical intervention to harness the potential of ‘Demographic Dividend’ in a young state like Jharkhand. To give impetus to growth with scale, speed and standard, the government of Jharkhand has decided to frame a Skills Policy for the state of Jharkhand. This policy will be known as ‘Jharkhand Skills-Policy 2018’ and will be in force from the date of publication of notification and will remain in force for the next 5 years.

Skill Development –State Action Plan

The state government is committed to enable access to skill-based livelihood opportunities and encourage self-employment. Effective outreach and the delivery of Deen Dayal Upadhyay Grameen Kaushalya Yojana (DDU-GKY) scheme – one of the largest skill development initiatives in rural Jharkhand and other schemes such as MGNREGA- LIFE aimed at promoting self-reliance and improving the skill base of the MGNREGA workers and Rural Self Employment Training Institutes (RSETI) – aimed at promoting entrepreneurship amongst the rural population will be ensured.

Promoting self-employment through micro enterprises is an integral aspect of the livelihood strategy under the National Rural Livelihoods Mission (NRLM) for the poor rural families. Some of the key programmes being implemented by the state are:

- *RSETI* – In Jharkhand, there are 24 operational RSETIs in each district and 1 Rural Development & Self Employment Training Institute (RUDSETI) in Silli Ranchi. A total of 676 training programmes were conducted in which a total of 19,605 candidates were trained across Jharkhand. Since its inception till FY2016-17, a total of 2,880 training programmes have been conducted with 85,030 candidates trained through the RSETI programmes.
- *Start-Up Village Entrepreneurship Programme* has been initiated under the NRLM in six

blocks. It adopts a resource block strategy for the promotion of micro enterprises with a vision to set up enterprises and provide support till the enterprises stabilize themselves with business skills, exposure, loans for starting and business support during the first critical one year of the enterprises by using the SHGs and their federations’ network through the local CRP-EPs/MECs. 6,791 enterprises are estimated to be established/ promoted by 2020-21.

- *Kudumbashree MEC model*- The state is adapting the successful Kerala MEC model to the conditions in Jharkhand. Currently, 850 enterprises have been set up under this project, and a total of 2,400 enterprises are to be promoted by FY2019-20.
- JOHAR aims to identify specific livelihood opportunities first by, developing an appropriate ecosystem for higher agriculture and allied productions and then by providing support enterprises/services to have skills assuring 100% placement. The project also envisages developing about 30 Farmer Producer Organizations (FPOS) and 3,400 PGs with entrepreneurs and service providers.

Promotion of Entrepreneurship in Jharkhand

The state government recognizes the need for developing the MSME sector through promoting entrepreneurship-development. Apart from introducing specialized entrepreneurship programmes, other initiatives such as the development of incubation centers, awareness, and promotion of entrepreneurship schemes and programmes such as PMEGP, Startup India, Stand-Up India are being undertaken. The Mudra scheme wherein the beneficiaries can take loans up to Rs 10 lakhs to start businesses will be promoted further. The focus will also be given to creating a conducive ecosystem through easy access to credit and strong market linkages. Further, under the national mandate, a network of Entrepreneurship Hubs (E-Hubs) will be established under which 1 national, 30 state, 50 Nodal and 3,000 college-based E-Hubs will be set up. As part of this mandate, the state will also develop an E-Hub.

Table 10.24 Targets for the promotion of Entrepreneurship

Indicators	Current Scenario	Target for 2021	Target for 2025	Target for 2030
Number of incubation centres	New indicators	24	48	96
Entrepreneurship hubs	0	1	3	10

Source: Jharkhand Vision & Action Plan 2021

The action plan for 2021 for the promotion of Entrepreneurship include the following:

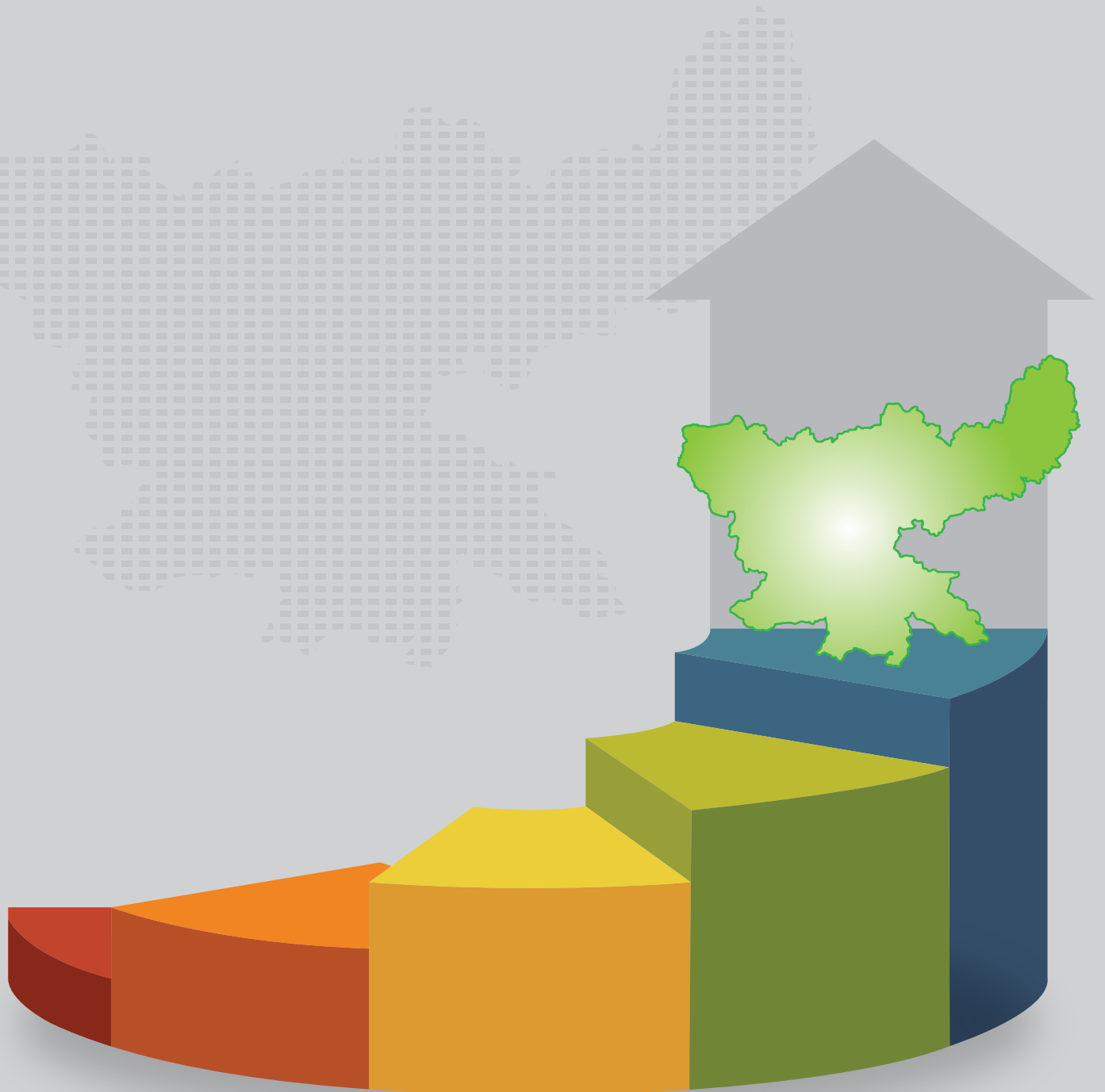
1. Special courses on entrepreneurship will be developed and implemented by JSDMS and other line departments.
2. Awareness programmes on entrepreneurship-related schemes and programmes will be conducted by JSDMS and other line departments.
3. Incubation centres will be developed across all the districts in the state. These centres will also emerge as specialized centres.
4. The focus will also be placed on encouraging women entrepreneurs through appropriate incentives for women-owned businesses.

Conclusion

In recent years Jharkhand has emerged as one of the leading states regarding the achievement of high rates of economic growth along with an increased labor-force participation and provisions of skill-development opportunities. However, a higher degree of unemployment, especially for women and the transgender community remain a challenge. The government has taken several initiatives and is working on an action plan 2021 to overcome the challenges and provide a better future to its youth.

XI

EDUCATION



Jharkhand is making rapid strides in improving its educational outcome. The gross enrolment ratio (GER) both in the primary and the upper primary schools in the state is higher than the national average. A large number of youths in the state are being trained in vocational skills. The state government has taken a multi-prolonged approach to improve the reach and quality of education at all levels. It has engaged in industry-academia interactions in improving the employability of its youth. It has also succeeded in mitigating the gender gap in its educational outcome to a significant extent.

Jharkhand is steadily able to improve its educational attainment by continuously improving its literacy rate, both for its male and its female citizens. The overall literacy level in Jharkhand stood at only 53.56 per cent during 2001. With only about half of its population being able to read and write, this number was abysmally low for its female citizens. Jharkhand had a 38.87 per cent female literacy rate as compared to 67.03 per cent male literacy rate during 2001. The continuing efforts from the state uplifted the literacy outcome to 66.41 per cent, and the female literacy significantly improved to

55.42 per cent by the 2011 census. With the significant improvement in the enrolment rate of both the boys and girls the overall literacy rate is bound to increase exponentially and the state is going to achieve 100 per cent literacy and the gender-difference in the attainment of education is going to vanish very soon.

An overview of Enrolment of Students in Jharkhand

Universal elementary education is the most important target of all the governments in the states in India. At present more than 60 lakh students are enrolled for elementary education in Jharkhand. Out of this 40.74 lakhs are in primary level whereas, 20.14 lakhs are in the upper the primary level as reflected in table 11.1. The enrolment situations in grade VIII to XII are on a path towards improvement. As compared to 2016-17, the total enrolment in grade IX increased by 14.5 per cent, similarly in grade XI, this increase is by 45.5 per cent and in grade XII by more than 60 per cent, as shown in table-11.2. The improvement has also been registered in the case of the enrolment of students with special needs in the state, as shown in table-11.3 which reflects the commitments of the state in providing them with the required infrastructure and services.

Table-11.1: Enrolment in the Elementary Section

Year	Primary	Upper Primary	Elementary
2017-18	4074931	2014774	6089705

Source: The District Information System for Education (DISE), 2017-18

Table-11.2: Enrolment in Classes VIII- XII

Grade	2016-17				2017-18				
	Boys	Girls	Total	G/T Ratio	Boys	Girls	Total	YoY % change	G/T Ratio
VIII	291843	294550	586393	50.23	320127	323220	643347	9.71	50.24
IX	234620	232173	466793	49.74	267891	266661	534552	14.51	49.88
X	209166	208501	417667	49.92	228899	228856	457755	9.59	50.00
XI	121378	109777	231155	47.49	174894	161665	336559	45.59	48.03
XII	103651	94418	198069	47.67	167386	150208	317594	60.34	47.30

Source: The District Information System for Education (U-DISE), 2016-17 and 2017-18

Table-11.3: Grade wise Enrolment of Students with Special needs

Grade	2016-17			2017-18		
	Boys	Girls	Total	Boys	Girls	Total
VIII	3035	2851	5886	3575	3346	6921
IX	870	973	1843	690	818	1508
X	524	647	1171	601	793	1394
XI	84	230	314	156	219	375
XII	59	186	245	114	180	294
IX-X	1394	1620	3014	1291	1611	2902
XI-XII	143	416	559	270	399	669

Source: The District Information System for Education (U-DISE), 2016-17 and 2017-18

Status of Enrolment-Based Indicators in Jharkhand

All efforts and expenditures on increasing the number of class rooms, laboratories, playgrounds, books in the library and teachers are of little use unless they are being optimally utilized by the respective clientele population. The enrolment-based indicators help us in evaluating the uses of the existing infrastructures at the different levels by the needy population.

Gross Enrolment Ratio (GER)¹ and NET Enrolment Ratio (NER)²

Gross and Net enrolment ratios are used to show the general level of participation in a given level of education. A 100 per cent NER at any educational level shows a universal participation of the respective corresponding population qualified as per the age requirements of that

educational level. GER is sometimes greater than 100 per cent as it also covers, in addition, to proper aged, over aged, under aged and repeaters in the corresponding enrolled population at the different educational levels.

Jharkhand has achieved a GER of more than 100 per cent at the primary, upper primary and elementary levels which is quite appreciable. At the primary level the NER is 92 per cent which is healthy but given the millennium-development-goals of 100 per cent NER, Jharkhand needs to continue its efforts in this direction. The NER at the secondary and the higher secondary level is less than 50 per cent and hence demands more efforts. The GER and NER among the boys and girls at the different educational levels are very much similar to the overall trend and hence highlights the gender equality as shown in table-11.4.

Table-11.4: GER and NER (All categories) at the different educational levels (2017-18)

Educational Levels	GER			NER		
	Boys	Girls	Total	Boys	Girls	Total
Primary	101.35	100.48	100.93	92.34	91.65	92.00
Upper Primary	98.26	108.81	103.27	83.82	91.93	87.67
Elementary	100.33	103.15	101.69	94.48	96.84	95.62
Secondary	68.86	76.36	72.41	47.61	52.24	49.80
Higher Secondary	55.68	57.92	56.73	34.33	34.58	34.45

Source: The District Information System for Education (DISE), 2017-18

¹ 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% due to the inclusion of the over-aged and under-aged students, because of early or late school entrance, and grade repetition.

² 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 per cent.

GER among the Scheduled Tribes (STs) and the Scheduled Castes (SCs)

Given the fact that Jharkhand has a significant population of the STs and the SCs, keeping a track of GER among these communities is absolutely necessary. Table-11.5 gives a detail of the GER at the different educational levels among the STs and SCs. At the primary level, the

GER is more than 100 per cent among both the boys and girls among the STs and SCs. A similar situation is there in case of the elementary level of education also. However in the case of the upper primary level the GER of the ST boys is 97.16 per cent and it is less than that of the ST girls which is 105.70 per cent. The other trends are similar to that of the overall trends in the state.

Table-11.5: GER among the STs and SCs at the different Educational Levels (2017-18)

Educational Levels	ST			SC		
	Boys	Girls	Total	Boys	Girls	Total
Primary	108.99	108.20	108.60	115.09	113.01	114.07
Upper Primary	97.16	105.70	101.27	108.00	120.10	113.71
Elementary	105.11	107.40	106.23	112.83	115.16	113.96
Secondary	60.06	65.37	62.63	66.73	76.78	71.40
Higher Secondary	40.56	43.98	42.23	57.02	59.32	58.06

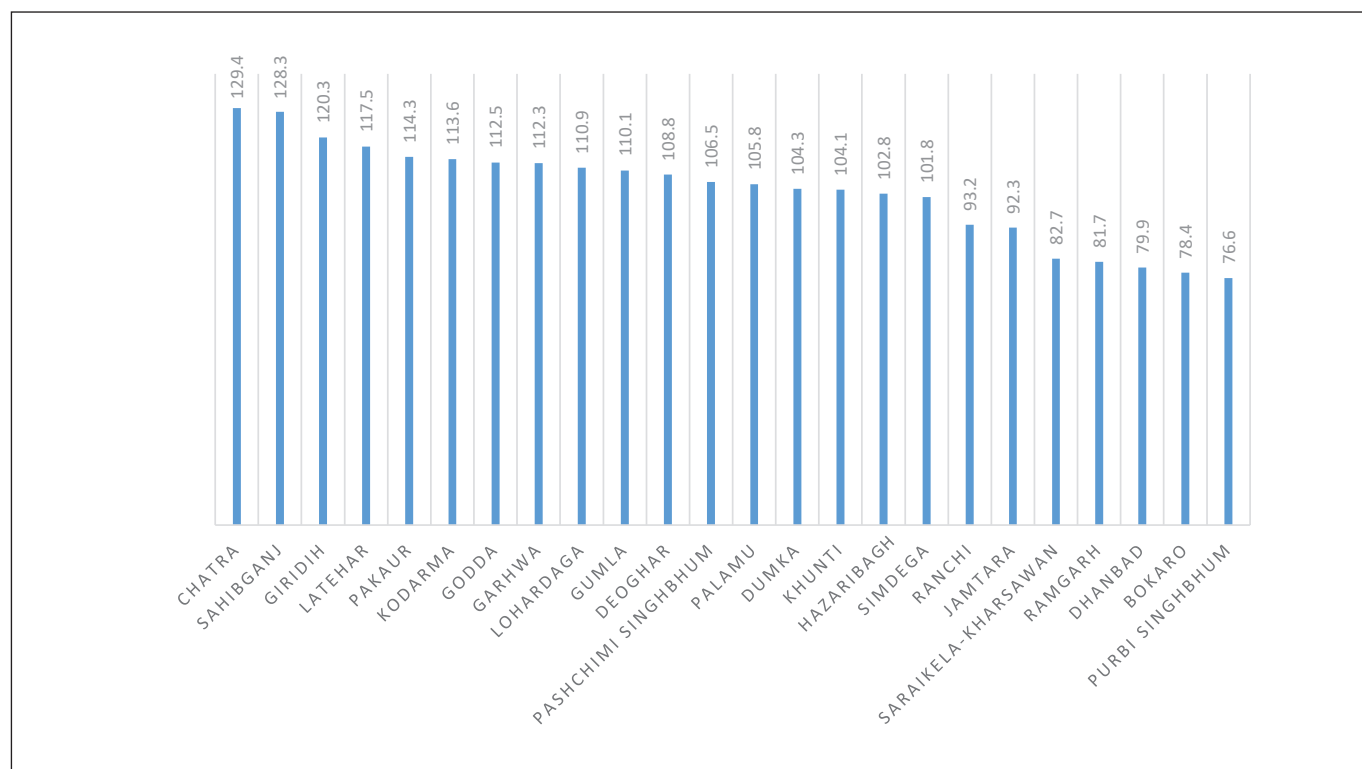
Source: The District Information System for Education (DISE), 2017-18

District-wise Trends in the GER

Although, the GER includes over aged, under aged and also repeaters but a less than 100 per cent GER can be taken as a measure of the dismal enrolment performance

at any educational level. In 2017-18, out of the 24 districts, 7 districts recorded a less than 100 per cent GER at the primary level. Chatra with 129.4 per cent is at the top of this list whereas, East Singhbhum with only 76.6 per cent is at the bottom, figure-11.1.

Figure-11.1: District-wise GER at the Primary Level (2017-18)



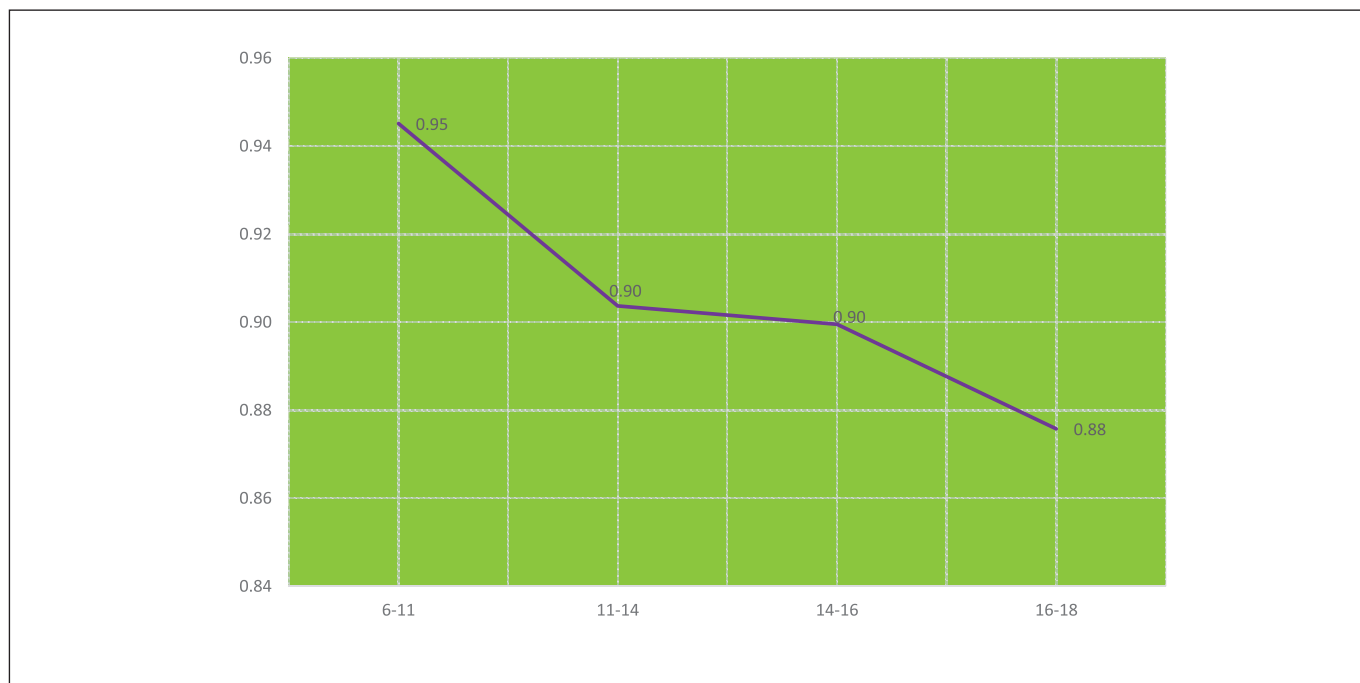
Source: The District Information System for Education (DISE), 2017-18

Gender Parity Index (GPI)

The GPI measures the progress of the gender parity in the education participation and/or the learning opportunities available for girls in relation to those available for boys. The GPI equal to 1 indicates the parity between the girls and the boys. In general, a value less than 1 indicates a

disparity in favour of the boys and a value greater than 1 indicates a disparity in favour of the girls. The GPI in Jharkhand at different age-intervals each less than one. It is also noticeable that as the age increase, disparity also increase as given in figure-11.2. This indicates that the girls are not able to utilize the educational opportunities in the same magnitude as the boys.

Figure-11.2: GPI as per the Age group (2017-18)



Source: The District Information System for Education (DISE), 2017-18

Drop-out, Promotion and Repetition

Drop-out is a major challenge in Jharkhand as the rate is very high. However, table-11.6 suggests that significant progress has been made in this direction. In 2016-17,

the drop-out rate in grade X was more than 50 per cent but it has come down to 18.72 per cent in 2017-18. The promotion rates were very low in 2016-17 but they have improved in all the grades in 2017-18. The repetition rates are also low, as is reflected in table-11.6.

Table11.6: Dropout, Promotion and Repetition Rates in Jharkhand

Year	2016-17			2017-18		
	Drop-out Rate	Promotion Rate	Repetition Rate	Drop-out Rate	Promotion Rate	Repetition Rate
VIII	29.91	69.39	0.70	9.36	90.03	0.60
IX	22.30	76.92	0.78	1.249	96.94	1.80
X	52.54	46.87	0.59	18.72	80.01	1.26
XI	28.18	70.71	1.12	0	135.29	0.99
XII			0.20	0		2.39
IX-X	36.64	62.67	0.69	1.50	96.95	1.55
XI-XII			0.66	0	135.29	1.58

Source: The District Information System for Education (U-DISE), 2016-17 and 2017-18

Educational Infrastructure

Number of Schools

In the year 2016-17, there were 47 thousand 749 schools in Jharkhand, which constituted about 3.3 per cent of the total number of schools in the country. In the year 2017-18, about one thousand eight hundred new schools were added into it. The number of schools in

the state, thus, increased by 3.7 per cent in these two years. More than half of these schools had classes up to the 5th standard (Primary schools) only and about one third of the schools had classes up to the 8th standard (primary with upper primary sections). In these two years, however, while the number of 'primary only' schools increased by 2 per cent only that of the 'primary with upper primary classes' increased by 7.6 per cent.

Table 11.7: Distribution of Schools in Jharkhand and All India

Year	Class										Total
	I-V	I-VIII	I-X	I-XII	VI-VIII	VI-X	VI-XII	IX-X	IX-XII	XI-XII	
2016-17	26931	15827	2261	464	86	598	463	526	327	266	47749
2017-18	27465	17024	2281	484	81	596	458	522	331	288	49530

Source: *The District Information System for Education (DISE), 2017-18*

There are about 115 primary schools, 44 upper primary schools, 8 secondary schools and 3 higher secondary schools per lakh population in the state. One primary school, thus, caters to 868 people, one upper primary

school caters to 2286 people, one secondary school serves about 12 thousand people and one higher secondary school serves about 38 thousand people in the state.

Table 11.8: Number of Schools per lakh population in 2017-18

Type of School	Primary	Upper Primary	Secondary	Higher Secondary
Number of School per lakh population	115.2	43.7	8.2	2.6

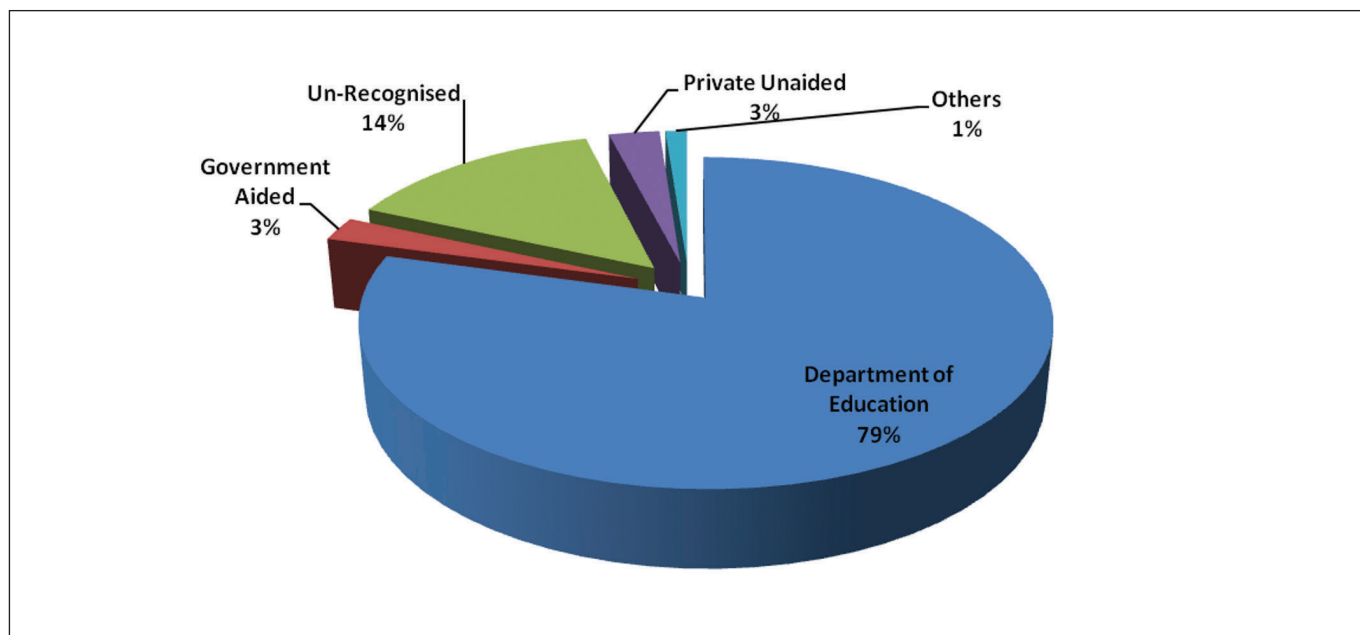
Source: *The District Information System for Education (DISE), 2017-18*

About 79 per cent of the schools in the state are government schools managed by the department of school education, about 2 per cent are government aided and about 3 per cent are private unaided schools. About 14 per cent are private unrecognized schools. The remaining about 1 per cent of the schools includes all other management-type schools, which include Jawahar Navodaya Vidyalaya, Kendriya Vidyalaya/Central School, recognized (by Wakf board/Madarsa Board) and unrecognized Madarsa, NCLP, Railway Vidyalaya, Sainik School, Schools of Social welfare Department and those run by the Tribal Welfare Department. There

are 17 Jawahar Navodaya Vidyalaya, 54 Kendriya Vidyalaya/Central School, 24 recognized and 140 unrecognized Madarsas, 194 NCLP schools, 5 Railway Vidyalaya, 1 Sainik School, 3 Schools of Social Welfare Department and 169 schools of the Tribal Welfare Department in the state.

The government schools include residential schools like Kasturba Gandhi Balika Vidyalaya (KGBV), Jharkhand Balika Avasiye Vidyalaya (JBAV) and Samarth Residential Schools. There are 203 KGBVs, 57 JBAVs and 20 Samarth Residential Schools in the state.

Figure 11.3 Schools by types of Management in 2017-18



Source: The District Information System for Education (DISE), 2017-18

Schools by the number of students and Schools with the number of teachers

Most of the government schools have very few students and very few teachers. A little less than 5 per cent of the schools have less than 20 students, about 25 per cent of the schools have less than 40 students and about 65 per cent of the students have less than 100 students. Only

about 3 per cent of the schools have more than 500 per cent students which include less than 1 per cent of those schools which have more than one thousand students.

Similarly, about 20 per cent of the schools have only one teacher and another 42 per cent have only two teachers. Only about 12 per cent of the schools have more than 5 (6 and above) teachers.

Table 11.9: Schools by Number of students

	Number of Students per school										Total
	0 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	
Number of schools	1777	8247	7548	4685	2989	7261	3036	2373	1025	180	39121
% to total number of schools	4.5	21.1	19.3	12.0	7.6	18.6	7.8	6.1	2.6	0.5	100.0

Source: District Information System for Education (DISE), 2017-18

Table 11.10: Schools by Number of teachers

	Number of Teachers per school										
	1	2	3	4	5	6	7	8	9	10	>10
Number of schools	7834	16528	4382	3584	2391	1502	972	658	405	286	660
% to total number of schools	20.0	42.2	11.2	9.1	6.1	3.8	2.5	1.7	1.0	0.7	1.7

Source: District Information System for Education (DISE), 2017-18

School Mergers in Jharkhand

Over the years, Jharkhand has made significant progress in increasing the enrolment of the children in schools. At the primary level, near universal enrolment has been achieved. This has been achieved by ensuring universal access to schooling. Though, the Right to Education (RTE) has set the norm for setting up schools at one kilometer of walking distance for children in grades I-V, and three kilometers for the children in grades VI-VIII, for a variety of on-ground reasons, several schools were opened within a close vicinity of each other, saturating schooling beyond RTE mandates.

As mentioned above, in the year 2017-18, out of the 39,121 schools under the Department of Education in Jharkhand, 17,571 schools (about 45 per cent of the schools) had less than 60 students (as per DISE 17-18 data). These schools had an average of 1-2 teachers per school. These excessively fragmented schooling units have proved to be a big challenge in ensuring quality-education and adequate learning outcomes. The main challenges faced by them are as follows:-

- Providing sufficient quantity and quality of teachers for these sub-scale schooling units has proved to be a challenge which in turn hampers their ability to focus on the students struggling

academically.

- Many of these schools do not have adequate land for the construction of quality infrastructure such as the required number of classrooms, playgrounds, laboratories etc.
- These sub-scale schools have smaller dependent communities resulting in low public and systemic accountability thus creating a scope for lax performance
- Sub-scale schools fail to fulfil the RTE norms such as PTR, learning outcomes etc.

In order to resolve these challenges and ensure quality-education and learning-outcomes, Jharkhand has pursued school mergers on a large scale in academic years 2016-17 and 2017-18. In 2016-17, a comprehensive consolidation exercise was undertaken under which nearly ~1,300 sub-scale schools were merged into nearby schools. Another merger and consolidation exercise for the sub-scale schools was undertaken in 2017-18. The processes and guidelines followed in the 2017-18 for school reorganization involved detailed field inspections, consultations at the block and district levels with multiple stakeholders including parents, teachers, local authorities, children and communities.

Box 11.1 : Guideline for Rationalization of Small Schools

The schools in Jharkhand have been rationalized and consolidated using the guidelines issued by Ministry of Human Resource Development, Government of India.

MHRD has published detailed steps and guiding principles for rationalization of small schools vide letter no. 12-4/2016-EE. 11 dated July 7, 2017 after detailed consultations with multiple stakeholders.

- a. The guidelines emphasize on the fact that the primary aim of the process is to ensure access to every child to a fully functional school in terms of availability of teachers, infrastructure, and other resources as mandated under RTE act.
- b. Additionally, MHRD has encouraged integrated schools for better learning outcomes and to achieve this, it has provided provision for giving out school grants as per number of enrolments with additional grants for ICT/vocational trainings to schools with grades from I to XII. There is a provision for transport grant as well to children in order to promote integration of schools.

The objective of the school reorganization exercise was to identify and merge the sub-scale schools where alternative government schools were available for all the students affected by this reorganization within the RTE norms of walking distance. With this restructuring, the state hopes to achieve the following –

- i. Sufficient teacher availability to focus on the quality of education
- ii. Quality infrastructure in large-scale campuses
- iii. Increased monitoring and support for the reduced number of administrative units

The Outcome of School Reorganisation

As a result of the reorganisation of schools the number of schools has decreased by 10.9 per cent in the year

2017-18. The primary schools (class I to V) decreased by 14.2 per cent and the middle schools (class I to VIII & VI to VIII) by 6.8 per cent. The number of secondary and higher secondary schools has remained the same.

Table 11.11: Number of Schools before and after Mergers

	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr. Secondary Schools (I-XII, VI-XII, IX-XII)	Total
Before merger	24086	12424	1833	861	39204
After merger	20660	11585	1833	861	34939
% of change	14.2	6.8	0.0	0.0	10.9

Source: *The District Information System for Education (DISE), 2017-18*

The 2017-18 exercise of school mergers and reorganization has led to multiple impacts which are beneficial for improving the quality of education.

- School-reorganization has a significant impact on the availability of teachers in the schools. Estimates based on the 2017-18 DISE data indicate that there were ~7,500 surplus teachers against ~31,000 vacancies before the reorganization which has shifted to ~9,000 surplus teachers for ~28,000 vacancies post the consolidation exercise. Thus, the net effect has been a reduction of ~4,500 teacher-requirements across the reorganized schools.¹
- There has been a significant reduction in multi-grade teaching, especially in the primary schools. This is critical to improving learning outcomes as the state proceeds towards the implementation of a large-scale learning enhancement program called the “Gyan Setu”. The programme requires the teachers in a school to group students on the basis of their learning levels and to address the needs of each group separately. This technique cannot be effectively implemented in the schools with just 1 or 2 teachers.
- Majority of the reorganized schools were among the 17,000 low enrolment schools in Jharkhand which had an average of 1.8 teachers per school. Thus, 1 or 2 teachers were responsible for teaching across the grades I to V. Over 7 lakh children are studying in all the merged schools of Jharkhand (accounting for over 20% of the

elementary enrolment), all of whom will now effectively have more than 2 teachers at the primary level.

- Direct improvement in the learning-outcome is also expected from increased teacher-accountability due to community pressure and higher administrative monitoring.
- Further, from the academic year 2018-19, school development grants are linked to the enrolment in schools with student enrolment above 100 receiving annual grants in the categories of ₹50,000, ₹ 75,000 and ₹ 1,00,000. Earlier, the provisions for funds were smaller (in the range of ₹ 7,000-10,000 per school). Thus, large-scale schools will be able to improve their conditions significantly due to the availability of a large chunk of untied funds.
- Additionally, the state also benefits financially from the reduced requirement of teachers. The estimated annual savings of the state are expected to be ₹~400 cr through the reduced teacher-recruitments and limited civil work issues due to the better infrastructure at reorganized schooling units.
- The vacant buildings / infrastructure can be utilized for alternate purposes such as the ICDS centre. This will ensure the immediate availability of infrastructure for ICDS without any additional cost.
- It will be helpful in improving the ‘delta’ ranking for the aspirational districts.

¹ Teacher surpluses/vacancies have been calculated on the basis of district-wise PTRs as opposed to RTE norms)

Plan for Further reorganisation and consolidation

The consolidation and reorganization of ~6,000 schools across 2016-18 has been a huge success story for Jharkhand which has been appreciated by MHRD and NITI Ayog. However, another ~11,000-13,000 sub-scale schools still continue to function in different parts of Jharkhand where the quality of education remains questionable. Thus, there is an opportunity to further reorganize sub-scale schools extensively to create an ecosystem of optimal effective schooling units with adequate infrastructure and sufficient teachers. This will be carried out by providing transportation facilities to the students currently enrolled in sub-scale schools.

The private schools operate on comparatively larger scales and have been effective in providing transportation facilities to their students and thus have become the preferred option of education for parents and children. In Jharkhand, there are ~3 teachers and ~125 students per government school on an average where as in (unaided) private schools it is ~15 teachers and ~680 students. The next phase of reorganization and consolidation have, therefore, been planned to be initiated for sub-scale schools at the urban centres since these areas already have private schools providing transportation facilities for their students. A similar transportation service model can be effectively implemented for the government schools as well. Through extensive stakeholder consultations at the gram panchayat level, effective transportation system will be identified for other semi-urban and rural regions. The transportation system can be customized for each region depending on multiple factors such as the number of consolidated schools, terrain, demography, effectiveness of school

management committee of the merged schools, effectiveness of the community in arranging transport for the children etc.

Additionally, in line with guiding principles of the MHRD, there is a need to promote integrated schools from grades VI to XII or I to XII. This can be effective since the teachers of the grades IX-X can be utilized for teaching all the grades from VI to X as the academic qualification-requirements are similar across the grades VI to X. This will also ease the financial burden of recruiting additional teachers across the state. Thus, in the next phase, a comprehensive reorganization and integration of schools is required in Jharkhand which will have a significant impact on the quality of education and the effective utilization of the available resources in schools.

School Facilities

Most of the schools in Jharkhand are in good condition. In the academic year 2016-17, about 92 per cent of the classrooms in the secondary schools and 94 per cent of the classrooms in the higher secondary schools in Jharkhand were in good condition. Only about 4 per cent of the classrooms in the secondary schools and 2 per cent of the classrooms in the higher secondary schools required major repair. The condition of classrooms in the state is better than the national average. In the country, that year, about 87 per cent of the classrooms in the secondary schools and 90 per cent of the classrooms in the higher secondary schools were in good conditions and about 6 per cent of the classrooms in secondary schools and 3 per cent of the classrooms in higher secondary schools required major repair.

Table 11.12: School Conditions in Jharkhand and at the All India level

% Cls. by Condition	Jharkhand		India	
	Secondary	Hr. Sec.	Secondary	Hr. Sec.
Good	91.49	93.53	86.69	90.43
Major Repair	4.33	2.03	6.02	3.36
Minor Repair	4.18	4.44	7.28	6.22

Source: U-DISE School Education India 2016-17

The number of students per classroom is not only low in Jharkhand but has also improved over the years. Except for the higher secondary schools, in all the other schools, the number of students per classrooms has decreased between 2013-14 and 2017-18. The rate of

improvement in the student classroom ratio is higher if the under-construction classrooms are excluded. The student classroom ratio, including the under construction classrooms, in the primary section was 18.2 in the year 2013-14. It decreased to 14.6 in the year 2017-18, at the

rate of 5.4 per cent per annum. If the under construction classrooms are excluded, it has decreased from 21.7 to 16 between 2013-14 and 2017-18 at the rate of per cent per annum. In the upper primary and secondary sections also, the rate of decline is higher in the case of the latter

than the former. In the higher secondary sections also the rate of increase in the student-classroom-ratio is higher if the under construction classrooms are excluded but not if they are included. This shows a high speed in the completion of the under-construction classrooms.

Figure 11.4: Student Classroom (including under construction) Ratio

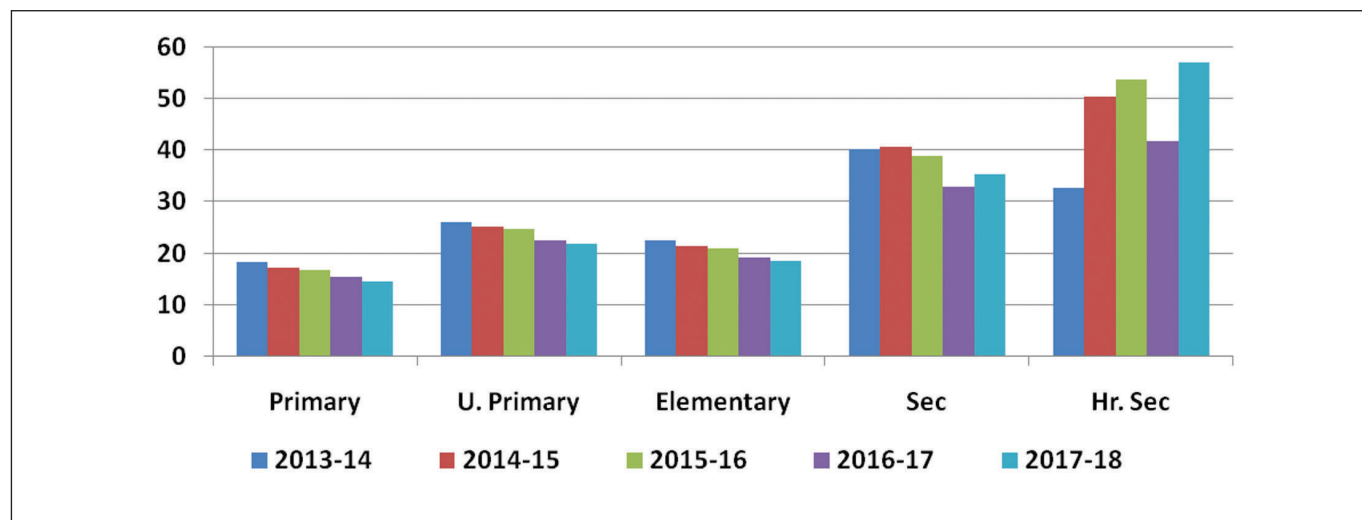


Table 11. 13: Student Class Room Ratio

	Primary	U. Primary	Elementary	Sec	Hr. Sec
Including under construction class rooms					
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
Excluding under construction class rooms					
2013-14	21.7	30.3	26.4	47.2	37.7
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

Source: The District Information System for Education (DISE), 2017-18

Most of the schools in Jharkhand are well equipped with basic facilities like drinking water, toilets and libraries. The performance of the government [Under Department of Education (DOE)] schools with these three basic facilities is better than that of the private schools. As against 63 per cent of the private schools about 95 per cent of the government schools have libraries. This shows the commitment of the Department of Education to raise their students in the print rich environment.

In the cas of the most of other facilities also the government schools are almost as good as the private schools. In comparison to the private schools, a larger percentage of government schools have ramps - showing their concern for the children with special needs – a smaller percentage of schools are zero classroom schools. However, in comparison to the private schools fewer number of government schools have playgrounds, boundary walls, electricity connection and computers.

Table 11.14: Availability of basic facilities in Private and Government (DOE) Schools

Type of School	Drinking water	Functional Boys Toilet	Functional Girls Toilet	Electricity	Computers
Pvt. Schools	87.9	94.7	95.5	71.2	41.6
Government Schools (DOE)	95.4	95.8	97.3	42.5	3.4

Source: The District Information System for Education (DISE), 2017-18

Table 11.15: Availability of Other facilities in Private and Government (DOE) Schools

Type of School	Playground	Library	Boundary Wall	Zero Cls School	Ramps_Available
Pvt. Schools	62.8	63.5	67.9	2.0	21.0
Government Schools (DOE)	55.0	95.0	26.5	0.4	69.2

Source: The District Information System for Education (DISE), 2017-18

Though a large percentage of the schools have libraries, very few of them have laboratories. Only about 19 per cent of the schools in Jharkhand have Physics, Chemistry, Biology and Computer labs. Jharkhand in this respect is behind the all-India average. At the all India level, about 30 per cent of the schools have Physics, Chemistry and Biology labs and about 35 per cent have computer labs. Very few of the schools of the state have laboratories of Maths, Language, Geography, Home Science or Psychology.

Table 11.16: Percentage of Schools having Laboratories—Jharkhand and All India

Lab Type	Jharkhand	India
Physics	18.68	30.64
Chemistry	18.68	30.44
Biology	18.16	29.06
Computer	19.28	34.68

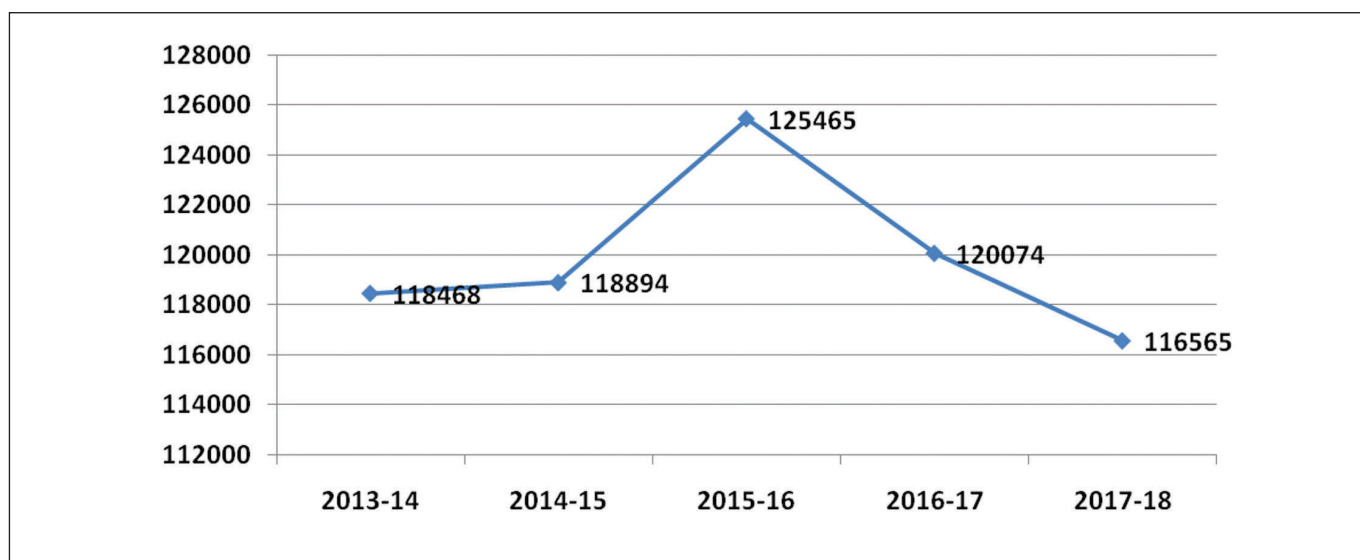
Lab Type	Jharkhand	India
Maths	10.66	11.39
Language	4.61	7.07
Geography	6.45	11.56
Home Science	4.08	6.79
Psychology	3.49	2.94

Source: U-DISE School Education India 2016-17

The Teachers

There are 1, 16,565 teachers in the state up to the secondary sections and 589 teachers at the +2 (Jr. college) level. About 86 per cent of these teachers are trained and about 28 per cent of the teachers are women. The number of teachers, over the years, has almost remained the same. The number of teachers was about 1 lakh 18 thousand in the years 2013-14 and 2014-15. It reached its peak in the year 2015-16 but came down to 1 lakh 16 thousand in the year 2017-18.

Figure 11.5: Number of teachers over the years



Pupil Teacher Ratio

Except for the higher secondary section, the pupil teacher ratio (PTR) in the state has improved over the years. In the primary section it was about 34 students per teacher, but in the year 2017-18, it came down to 29 only. In the upper primary, elementary and secondary sections the PTRs were about 48, 42 and 74 respectively in the year 2013-14; they decreased to become 42, 36

and 66 respectively in the year 2017-18. In the higher secondary section it has increased from about 51 in the year 2013-14 to 87 in the year 2017-18. Due to an increase in the PTR at the higher secondary level, the overall PTR has not decreased much – only from 44 in 2013-14 to 41 in 2017-18. As is evident from the table below the PTR in higher sections is higher than in the lower sections.

Table 11. 17: Pupil Teacher Ratio

	Primary	U. Primary	Elementary	Secondary	Hr 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

Source: The District Information System for Education (DISE), 2017-18

Quality of Education

ASER (Annual Status of Education Report) is an annual survey that aims to provide reliable annual estimates of children's schooling status and the basic learning levels for each state and rural district in India. It is the one of the largest citizen-led surveys in India and is also the only annual source of information on the children's learning outcomes available in the country.

Since 2005, the ASER has highlighted the fact that

although most of the children are enrolled in schools, many are not acquiring the foundational skills, like reading and basic Arithmetic that can help them progress in school and life. In 2017, the ASER focused on the youths in the age of 14 to 18 years who have moved just beyond the elementary school age. The report looks 'beyond basics' and explores a broader set of domains. The survey was conducted with 961 youth in 849 households in 60 villages in the Purbi Singhbhum district of Jharkhand.

Table 11.18: Distribution of youth by age and enrolment status 2017

Age Group	Enroled in Std XII or below	UG or Other	Not Enroled
14-18 All youth	73.3	5.7	21
14-18 Male	76.6	6.2	17.2
14-18 Female	70.6	5.3	24.1
14-16 All youth	86.4	0.4	13.2
14-16 Male	90.3	0.4	9.3
14-16 Female	83.1	0.4	16.4
17-18 All youth	51.1	14.7	34.2
17-18 Male	53.7	16	30.3
17-18 Female	48.9	13.6	37.4

Source: Annual Status of Education Report, 2017

According to the survey, 73.3 per cent of the youth in the age group of 14-18 were enrolled in Grade XII or below in Jharkhand. This number stood at 54.4 at the national level. Similarly, the enrolment at the UG level or similar educational level was 5.7 per cent in

Jharkhand as compared to the national average of 6.1 per cent. The percentage of youth who were not enrolled in any of the educational institutions was 21 per cent and 14.4 per cent, respectively for Jharkhand and all over India.

Table 11.19: Youth by enrolment status, years of schooling completed, and gender

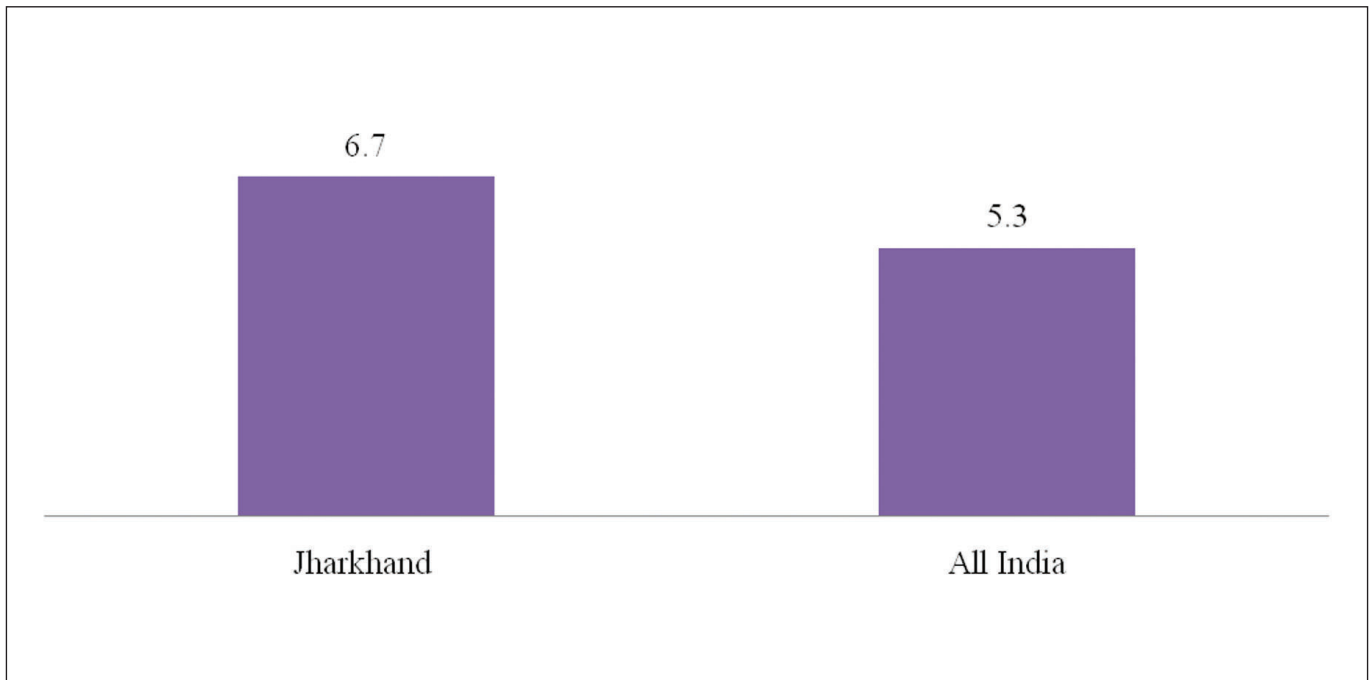
Enrolment Status	Years of schooling completed	Jharkhand			All India		
		All Youth	Male	Female	All Youth	Male	Female
Enrolled in school or college	8 or more years	61.7	64.8	59.2	71	72.9	69.3
	Less than 8 years	17.3	18.1	16.7	14.7	14.9	14.5
Not enrolled	8 or more years	16.2	12.6	19.2	10	7.8	12
	Less than 8 years	4.8	4.6	4.9	4.3	4.4	4.2

Source: *The Annual Status of Education Report, 2017*

The above table shows the gender-wise distribution of enrolment status of the youth enrolled in school or college. The data show that overall Jharkhand has less number of youth, both male, and female who are having 8 or more years of schooling. At all India level, this

number stood at 71 per cent, but for Jharkhand, it stood at 61.7 per cent. The number of youth who have been enrolled for less than eight years of school or college is higher for Jharkhand compared to the national average.

Figure 11.6: Youth taking vocational training



Source: *The Annual Status of Education Report, 2017*

A higher percentage of the youths in Jharkhand are enrolled in vocational training or other courses as compared to the national average. In Jharkhand, during

2017, 6.7 per cent of its youth in the age group of 14-18 were enrolled in vocational training, compared to the national average of 5.3 per cent.

Table 11.20: Youth who worked for 15 or more days in the last month, excluding household work

	Worked for 15 or more days in the last month
Jharkhand	52.1
All India	41.6

Source: *The Annual Status of Education Report, 2017*

Regarding the number of youths who worked for 15 or more days in the last month, excluding household work, the survey has found out that 52.1 per cent youth

worked for more than 15 days in Jharkhand, while the national average was 41.6 per cent.

Table 11.21: Digital use by youth age 14-18, by gender (% youth)

	Frequency of usage	All youth	Males	Females
Mobile	Last week	73.1	83	65
	Never	14.2	6.9	20.1
Internet	Last week	21.7	35.2	10.5
	Never	68.8	52.7	82.2
Computer	Last week	22.7	30.1	16.5
	Never	64.7	55.3	72.5

Source: *Annual Status of Education Report, 2017*

About 73.1 per cent were found to use a mobile phone. Only about 22 per cent of youth used the internet and almost equal percentage of youth (22.7%) used

computers in 2017. In all the cases, there was higher number of male users than female users, indicating a gender gap in digital usage in Jharkhand.

Table 11.22: Financial Knowledge of youth age 14-18, by gender (% youth)

	All youth	Male	Female
Have their bank account	83.6	85.6	82
Have deposited/withdrawn money	62.5	68.2	57.8
Have used an ATM	9.2	13.3	6
Have used internet banking	2.2	3.3	1.3

Source: *The Annual Status of Education Report, 2017*

About 84 per cent of the youth aged 14 to 16 had a bank account during 2017. This number stood at 85.6 per cent for the male and 82 per cent for the female. However, concerning the usage of these accounts in terms of either deposits or withdrawals, only 62.5 per cent used their accounts for financial transactions. Moreover, only

9.2 per cent had ever used an ATM, and only 2.2 per cent used any internet banking facility. These numbers were unusually low for women, with only 6 per cent having ever used an ATM, and 1.3 per cent having used internet banking.

Table 11.23: Youth at the different learning levels

	Percentage of youth who can at least do the following tasks		
Basic ASER level	All youth	Males	Females
Read a Std II level text	67.2	68.8	65.8
Do a division problem	44.3	52.1	37.9
Read English sentences	46.1	54.7	38.9

Source: *Annual Status of Education Report, 2017*

One of the major challenges of our present education system relates to the quality of education. In order to identify the gap in the quality, ASER tries to analyze the different learning outcomes. During 2017, about 67.2 per cent youths in the age group of 14-18 Jharkhand could read a standard II level textbook. This number was much below the national average of 76.6 per cent. Other

tasks included doing a division problem and reading an English sentence. Only 44.3 per cent of youths could do the division problem while 46.1 per cent could read the English sentence. Moreover, there was a considerable gender gap in terms of these learning levels. The performance of the females was lower than that of male youths, as is visible from the table.

Table 11.24: Percentage of youth who can do daily tasks, by gender

Task	All youth	Male	Female	All youth	Male	Female
Counting money	72.2	79.2	66.3	75.7	82.4	69.9
Adding weights	47.2	65.2	32.3	55.7	67.5	45.4
Telling time (hour)	85	89.9	81	82.7	86.2	79.6
Telling time (hour and minutes)	53.1	61.9	45.9	59.3	66.4	53.1

Source: *The Annual Status of Education Report, 2017*

In some other tasks, for instance, counting money, 72.2 per cent of the youth in Jharkhand compared to the national average of 75.7 per cent youth in the age group of 14-18 could complete the task. Even then, there remains a considerable gender gap. This is a worrying sign both at the national level as well as at the state level. In another task related to adding weights, only 47.2 per

cent of the youth in Jharkhand could do the task, while at the national level this number stood at 55.7 per cent. The gender gap prevails in this task as well. The figures are a little better for telling time in terms of hours, but when it comes to telling time through hour and minutes, the performance of the youth in the age group of 14-18 is abysmally low.

Table 11.25: Percentage of youth who can do common calculations, by gender

Task	All youth	Male	Female	All youth	Male	Female
Measuring length (easy)	88.5	92.4	85.3	85.9	89.2	83.1
Measuring length (hard)	27.4	38.2	18.4	39.7	47.9	32.5
Applying unitary method	35.5	44.4	28.2	50.2	58.7	42.7
Calculating time	31	34.9	27.8	38.6	43.6	34.3

Source: *The Annual Status of Education Report, 2017*

Table 15 presents the percentage of youth who could do a standard calculation in Jharkhand as well as at the all India level. Regarding measuring an easy length calculation, youths in Jharkhand (88.5%) performed better than the youths at the national level (85.9%). However, when given a harder problem, only 27.4 per cent of youth in Jharkhand could solve the problem, compared to the national average of 39.7 per cent. The

performance of female is worth noting, as only 18.4 per cent female could solve the problem. This performance both at the state level as well as at the national level should be taken seriously by all the stakeholders. The other numerical tasks included applying the unitary method and calculating time. In both the cases, the performance of the state youth was much lower compared to the national average.

Table 11.26: Percentage of the youth who can read and understand written instructions

	Jharkhand			India		
	All youth	Males	Females	All youth	Males	Females
Can read and understand at least 3 out of 4 instructions	41.3	52.8	31.7	53.5	57.5	49.9
Cannot read and understand even 3 out of 4 instructions	58.7	47.2	68.3	46.6	42.6	50.1

Source: *Annual Status of Education Report, 2017*

In another task, where the youth were tested on whether they could read and understand written instructions, the youth of Jharkhand once again performed below the national average. Only 41.3 per cent youth in the state compared to the national average of 53.5 per cent could

read and understand at least 3 out of the 4 instructions. In terms of the gender-wise performance, only 31.7 per cent females in Jharkhand compared to the national average of 49.9 per cent could read and understand at least 3 out of the 4 instructions in their native languages.

Table 11.27: Percentage of youth who can do map and general knowledge tasks

Task	Jharkhand			All India		
	All youth	Male	Female	All youth	Male	Female
Recognizing the map of India	86.4	89.7	83.6	86.3	89.4	83.6
Naming India's capital	57.9	63.8	53	64.1	69.1	59.7
Naming their own state	79.1	83.4	75.5	78.6	82.2	75.5
Identifying their own state on a map	36.2	42.3	31.2	42	48.7	36.2

Source: *The Annual Status of Education Report, 2017*

In other tasks, 86.4 per cent of the youth of Jharkhand could recognize the map of India, compared to the national average of 86.3 per cent. However, only 57.9 per cent could name the capital of India, compared to the national average of 64.1 per cent. The Youth

of Jharkhand (79.1%) performed better when asked to name their state as compared to the youths at the national level (78.6%). However, only 36.2 per cent could identify their state on a map, compared to the national average of 42 per cent.

Table 11.28: Percentage of youth who can do financial calculations, by gender

Task	Jharkhand			All India		
	All youth	Male	Female	All youth	Male	Female
Managing a budget	54	62.3	45.6	63.8	67.4	60.3
Taking a purchase decision	53.6	59.6	47.6	64.1	67.4	60.7
Applying a discount	20.2	26.4	14	37.7	46.7	28.7
Calculating repayment	8.3	8.7	7.8	15.4	18.7	12.1

Source: *The Annual Status of Education Report, 2017*

The overall state of the youth in the age group of 14 to 18 is not very promising in terms of their performance related to the financial calculations. Only 54 per cent youth in the state could manage a budget, compared to the national average of 63.8 per cent. 53.6 per cent of the youth in Jharkhand incapable of taking a purchase decision. The national average for this task stood at 64.1 per cent. In rather difficult tasks including applying a discount and calculating repayment, the youth in the state performed poorly. Only 20.2 per cent youth in Jharkhand were able to apply a discount compared to the national average of 37.7 per cent. This number was particularly unfortunate for the female, with only 14 per cent female youth in the state who could perform the task. Only 8.3 per cent could solve problems related to the calculation of repayment compared to the national average of 15.4 per cent.

Government Vision to Enhance the Quality of School Education in Jharkhand

The government of Jharkhand has identified certain key focus areas for improving the school-education. They are as follows:

1. Improving the quality of education and learning outcomes
2. Improving enrolment and reducing the number of dropouts at the secondary level
3. Addressing regional disparities regarding the enrolment, access and learning outcomes with a particular focus on the marginalized communities and underserved areas
4. Strengthening access and infrastructure and vocationalisation at the secondary level

5. Strengthening monitoring and governance

The state government plans to continue the current key interventions for the next three years and take new initiatives for school education through the existing schemes like Sarva Shiksha Abhiyan (SSA) for the primary level and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for the secondary level. Other major schemes which would be implemented are Kasturba Gandhi Balika Vidyalaya (KGBV), Jharkhand Awasiya Balika Vidyalaya (JABV), Mid-day Meal and Mukhaymantri Vidyalaxmi Yojana. Also, new initiatives will be launched for enhancing community participation and promoting life-long learning. The targets and the action plan for the same are further elaborated in the following sections.

The overall quality of education at the primary level has improved significantly as indicated by the Education Development Index (EDI) over the last few years. This could be attributed to the thrust on enhancing access, upgradation of infrastructure, introducing and developing a cadre of 70,000 para-teachers.

In the case of learning outcomes measured by the National Achievement Survey (NAS) for the primary and elementary education, Jharkhand has consistently performed better than the national average. However, the scores are comparatively lower than the more progressive states such as Kerala and Tamil Nadu, indicating the need for significant improvement in terms of the overall quality of education.

Considering the overall performance of school education, the state plans to focus on concrete measures for improving the quality of education at all levels through the provision of better infrastructure, ICT enablement, vocationalization at the secondary level and capacity building of the teachers.

New Initiatives by the Government of Jharkhand

Initiatives to Achieve Full Literacy in Jharkhand

The government of Jharkhand intends to achieve 100 per cent literacy rate for all by 2025. The primary initiatives for enhancing the rate of literacy are undertaken through the Sakshar Bharat Mission. The initiative focuses on imparting functional literacy in the age group of 15 years and more through 4,100 Lok Shiksha Kendra (LSK), i.e., Adult Education Centres. These initiatives also aim to cover adults under the basic education programme and impart vocational education, primarily targeting women, SCs, STs, minorities and other disadvantaged groups, and also the low-literacy-areas. During the last two years, literacy has been achieved for 32.9 lakh persons, and 28 lakh learners passed the basic literacy assessment examination of the National Institute of Open Schooling (NIOS).

State Plans to Improve Educational Outcome

Several state-government plans are in the pipeline to improve the educational outcome in the states. They are : Free Distribution of Text Books, Uniform and School Kit to Children, Mukhyamantri Vidya Laxmi Yojana, Free Cycle Distribution to Girls, Free Education for Girls up to the Intermediate Level, Free Distribution of School Uniforms, Text Book & Copy to all Girls Student of Class-IX to XII. Besides, Gyanodaya Yojana has been launched for ensuring quality education, effective monitoring, and supervision. A PMU Cell is also established for the implementation and monitoring of these schemes efficiently.

Initiatives to increase Girls Education

Increase in the number of enrolment from 100 to 150 in grades VI to VIII under Kasturba Gandhi Balika Vidyalaya (KGBV).

Box 11.2 : Project SATH-E

Project SATH-E is collaboration between the NITI Ayog and the state of Jharkhand and BCC to convert Jharkhand into a model state on education. It is being executed over a period of 30 months. A dedicated state PMU is leading the goal setting, design, and implementation. Under the project, a detailed roadmap of 15 initiatives has been outlined in Jharkhand to improve the delivery and quality of education in the state. Nineteen districts in Jharkhand have been identified as aspirational districts by NITI Ayog. These districts will be tracked on the eight educational parameters including transition rates, learning outcomes, and PTR. The three major initiatives under the SATH-E are School Reorganization, e Vidya Vahini and Gyan Setu.

Higher Education in Jharkhand

Higher education is an essential component of human capital development. Higher education helps in creating a productive and progressive workforce which in turn helps in creating better work opportunities and promoting higher economic growth. According to All

India Survey on Higher Education (AISHE) 2017-18, Jharkhand has 18 Universities which constitutes about 2.33 per cent (this number stood at 2.08 per cent) of all the Universities in India. Eight of its universities are state public universities with an equal number of state private universities. During the last year, Jharkhand has added three more private universities.

Table 11.29: Distribution of Universities in Jharkhand

Types of University	Jharkhand	All India	Proportion
Central University	1	45	2.22
Central Open University	0	1	0.00
Institute of National Importance	2	101	1.98
State Public University	8	351	2.28
Institute under State Legislature Act	0	5	0.00
State Open University	0	14	0.00
State Private University	8	262	3.05
State Private Open University	0	1	0.00
Deemed University Government	1	33	3.03
Deemed University Government Aided	0	10	0.00
Deemed University Private	1	80	1.25
Grand Total	21	903	2.33

Source: All India Survey on Higher Education (AISHE) Report 2017-18

Table 11.30: Gross Enrolment Ratio in Higher Education (18-23 Years)

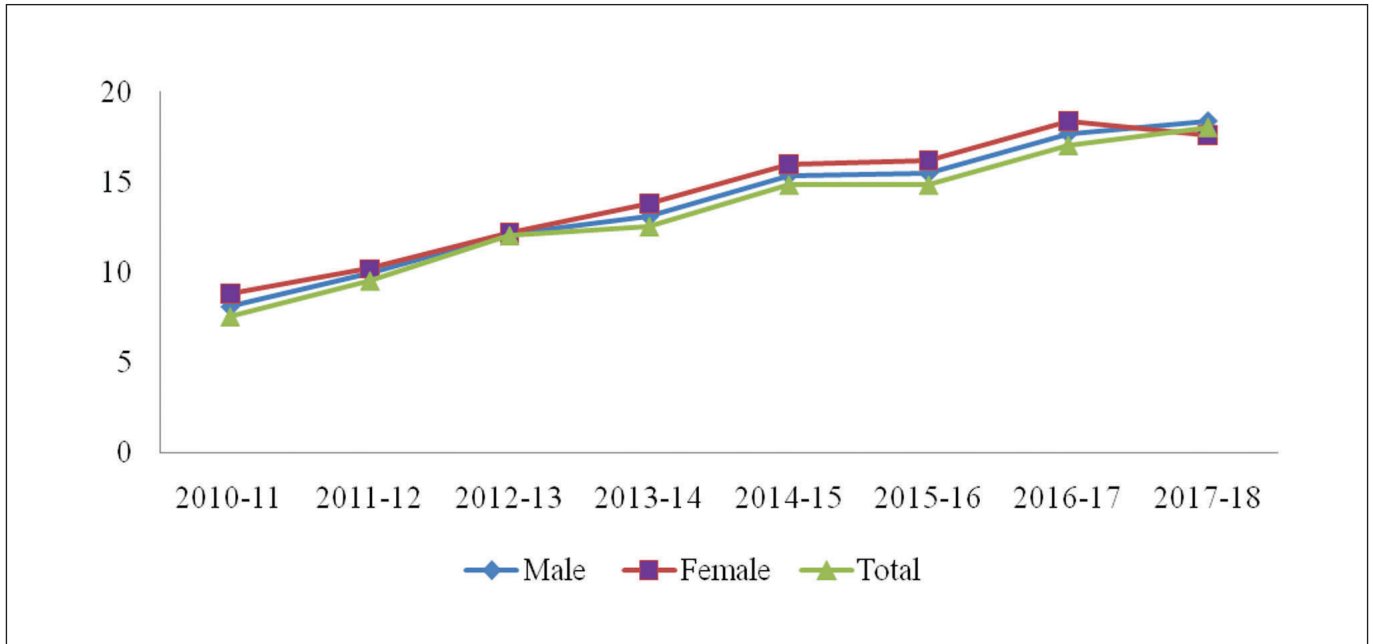
	All Categories			SC			ST		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Jharkhand	18.4	17.6	18	15.1	12.5	13.8	12.1	12.8	12.5
All India	26.3	25.4	25.8	22.2	21.4	21.8	17	14.9	15.9

Source: All India Survey on Higher Education (AISHE) Report 2017-18

One of the primary indicators of higher education entails to the Gross Enrolment Ratio (GER). The GER for Jharkhand during 2017-18 stood at 18 per cent which is below the national GER of 25.8 per cent. Even for the SCs and STs population, the GER in Jharkhand is significantly lower compared to the overall National statistics. Hence GER at the higher educational institutions is a major challenge for Jharkhand. However, carefully looking into the performance of the state over the last several years, it is observed that the

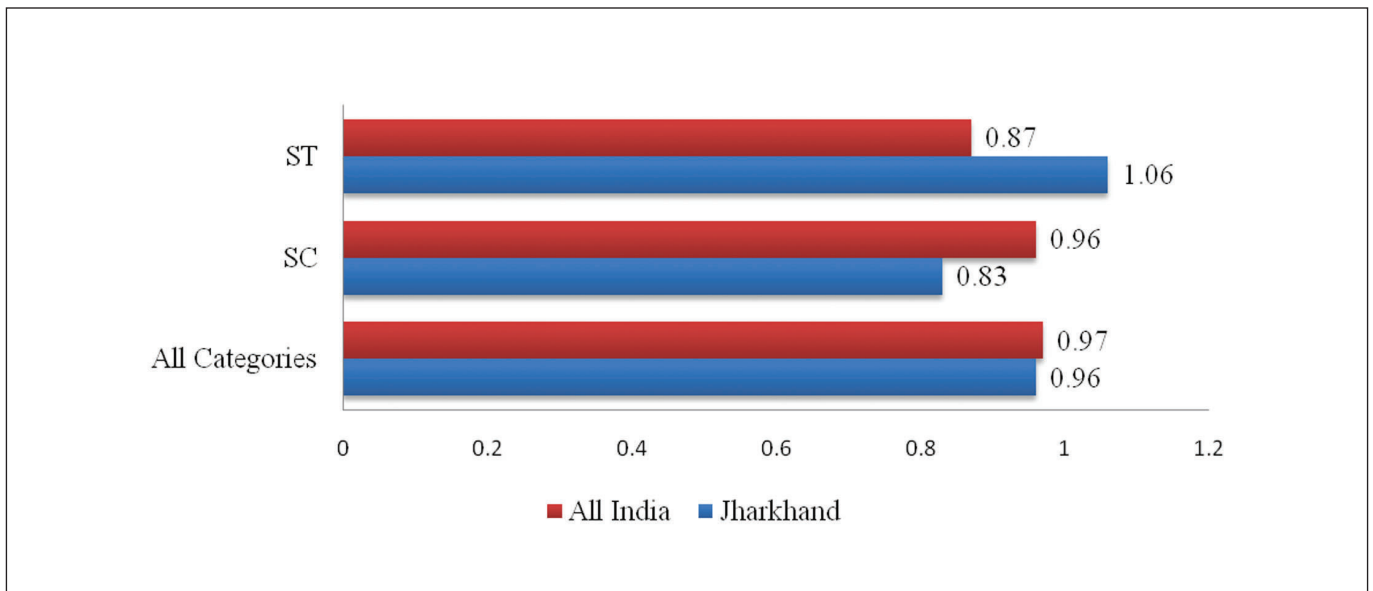
state is doing very well regarding increasing its GER, which stood at only 7.5 per cent in 2010-11. However, during the last seven years, this ratio has gone up to 18 per cent. Moreover, the GER for the females has remained above the male GER for all the years, except for the recent rounds. Also, regarding the gender parity index, Jharkhand has a marginally lower parity for all the categories, but for the STs students Jharkhand is way above compared to the all India level (1.06 vis-à-vis 0.86).

Figure 11.7: Gross Enrolment Ratio in Higher Education (18-23 Years) over the years



Source: All India Survey on Higher Education (AISHE) Report (2010-11 to 2017-18)

Figure 11.8: Gender Parity Index in Higher Education (18-23 Years)



Source: All India Survey on Higher Education (AISHE) Report, 2017-18

Pupil-Teacher Ratio in Higher Education

A major challenge for Jharkhand has been its meagre pupil-teacher ratio in the higher educational institutions. The pupil-teacher ratio in the universities and colleges of Jharkhand are relatively high when compared to the all India average. For instance, in 2017-18, the pupil-teacher ratio in the regular mode colleges and the universities of Jharkhand was 72, which is more than double than the all-India ratio of 30. Overall, for all the higher educational institutes in the state, the pupil-

teacher ratio stood at 59, compared to the national average of 29. Generally, smaller student-faculty ratio is a good indicator for 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 higher education in India. Providing good quality higher education can boost the state's productivity by attracting more talents and also enhance research and developmental activities.

Table 11.31: Pupil-Teacher Ratio in Higher Education

	All Institutions		University & Colleges		University & its Constituent Units	
	Regular & Distance Mode	Regular Mode	Regular & Distance Mode	Regular Mode	Regular & Distance Mode	Regular Mode
Jharkhand	59	56	77	72	49	26
All India	29	25	34	30	46	20

Source: All India Survey on Higher Education (AISHE) Report, 2017-18

Number of Colleges and average enrolment

Jharkhand has 309 colleges as per the last round of the AISHE 2017-18 survey. This is close to 1 per cent of the total number of colleges in the country. Jharkhand thus boasts a higher college density per one lakh youth

population between 18 to 23 years. Moreover, the average enrolment in these colleges is well above the national average. Thus Jharkhand not only has a higher number of available educational institutions but at the same time, many of its youth are currently engaged in seeking higher education.

Table 11.32: No of Colleges per lakh population and the Average Enrolment per College

	No of College	College per lakh population	Average Enrolment per College
Jharkhand	309	8	1786
All India	39050	28	698

Source: All India Survey on Higher Education (AISHE) Report, 2017-18

Hostel Facilities for Higher Education Students

As a large number of students come to Jharkhand for higher education from different parts of the state and the country, hostel facilities are an integral part of providing

education. During 2017-18, Jharkhand had 486 such hostels with an intake capacity of 63,405 students. The number of boys hostels stood at 282, and for girls, the number of hostels was 193, during the same period.

Table 11.33: Hostel Facilities for the Higher Education Students

	Boys Hostel			Girls Hostel			Other Hostel		
	Number	Intake	Residing	Number	Intake	Residing	Number	Intake	Residing
Jharkhand	282	40534	33727	193	21552	15988	11	1319	972
All India Proportion	1.5	1.3	1.8	0.9	0.7	0.9	1.2	1.1	1.3

Source: All India Survey on Higher Education (AISHE) Report, 2017-18

State Action Plans to Enhance Higher Education

The government of Jharkhand in order to improve the availability, access and quality of higher education is taking up following initiatives:-

1. Improving access to higher education through the up-gradation of the infrastructure of the existing colleges and setting up of new colleges:
 - a) Increase in intake capacity of the existing colleges and infrastructure upgradation

based on the overall demand.

- b) Setting up new colleges through private sector participation. Priority will be given for opening new colleges in un-served areas.
- c) The colleges will also be provided with ICT-enabled technologies supported with e-learning portals for facilitating the delivery of MOOCs and helping in

- meeting the shortage of faculty.
- d) The ICT enabling will be undertaken in a phased manner to cover all the higher educational institutes by 2020-21.
2. Setting up of Centre of Excellence (CoE) through industrial collaboration: The state plans to set up CoEs especially in IT, Electronics, Mining, Agriculture, Biotechnology, Energy, etc. Jharkhand has a considerable presence of large-scale industries which can be leveraged for setting up the CoEs as well as for introducing industry-relevant and demand-driven technical education and for the promotion of research and development in these areas. This will be achieved by 2020-21.
 3. Aligning of higher and technical education with progressive academic reforms: The following measures will be undertaken for compliances and improvement of the quality of education:
 - a) The academic courses will be made Choice-based Credit System (CBCS) compliant in a phased manner. The Jharkhand State Higher Education Council will have a key role in facilitating the implementation of CBCS across the HEIs.
 - b) SSC Certified, National Skill Qualified Framework (NSQF) aligned and demand-driven skill development courses will be introduced in the general course for higher education across all the institutions by 2020-21. For this, linkages will be established with Jharkhand Skill Development Mission and industry to design and provide technical assistance in delivering quality skill development courses. Simultaneously, a pool of trainers will be developed at the state-level to meet the increasing demand for trainers at the institutional level.
 - c) Research and development will be integrated with the curriculum, and promoted in collaboration with industry, both in general and technical higher education especially in the areas of local relevance. Initially, the research facilities will be provided in larger institutions to serve as 'Hub-and-Spoke' model upto 2020-21. After that, the effort would be made to set up to the basic R&D facilities at the HEI level by 2025 in all the institutions.
 4. Faculty development through Continuous Professional Development (CPD) and total performance management:
 - a) A structured approach will be adopted for faculty development especially from the perspective of implementing reforms and promoting industry-relevant research. This will be done in collaboration with select universities and the institutions of international repute.
 - b) A web-based system will be introduced for monitoring the performance of faculty linked with the quality of teaching, research and learning outcomes of the students. This will help in intensifying the scope for further strengthening the faculty development programmes and incentivizing high-performing faculty through awards/recognitions, fellowships, opportunities for participating in exchange programmes, etc.

Vocational Education

ITI is a major source of providing vocational training to the youth of the state. In Jharkhand, ITIs had been set up as a part of the skill development initiative to fulfil the growing need of skilled workforce across the different sectors in Jharkhand as well as India and reduce the existing gap between the demand and supply of skills. There are around 59 government-run ITIs with a training capacity of around 17,200 seats, and more than 100 private ITIs spread across all the districts of Jharkhand.

Conclusion

The enrolment of the boys and girls from all the categories in all the grades is improving consistently in the state. The increase in enrolment at the higher secondary level is quite remarkable. Up to the elementary level the GER is more than 100 per cent but the NER is only around 90 per cent and this is a reminder that the target

of universal elementary education is yet to be achieved. The GPI is very near to 1 in case of the elementary level of education and hence the girls and boys are taking equal advantage of the educational opportunities and facilities at that level. However, it is a matter of concern that the GPI is highly adverse for girls in the higher age groups. Drop-out rates have also declined in the state as compared to the previous year.

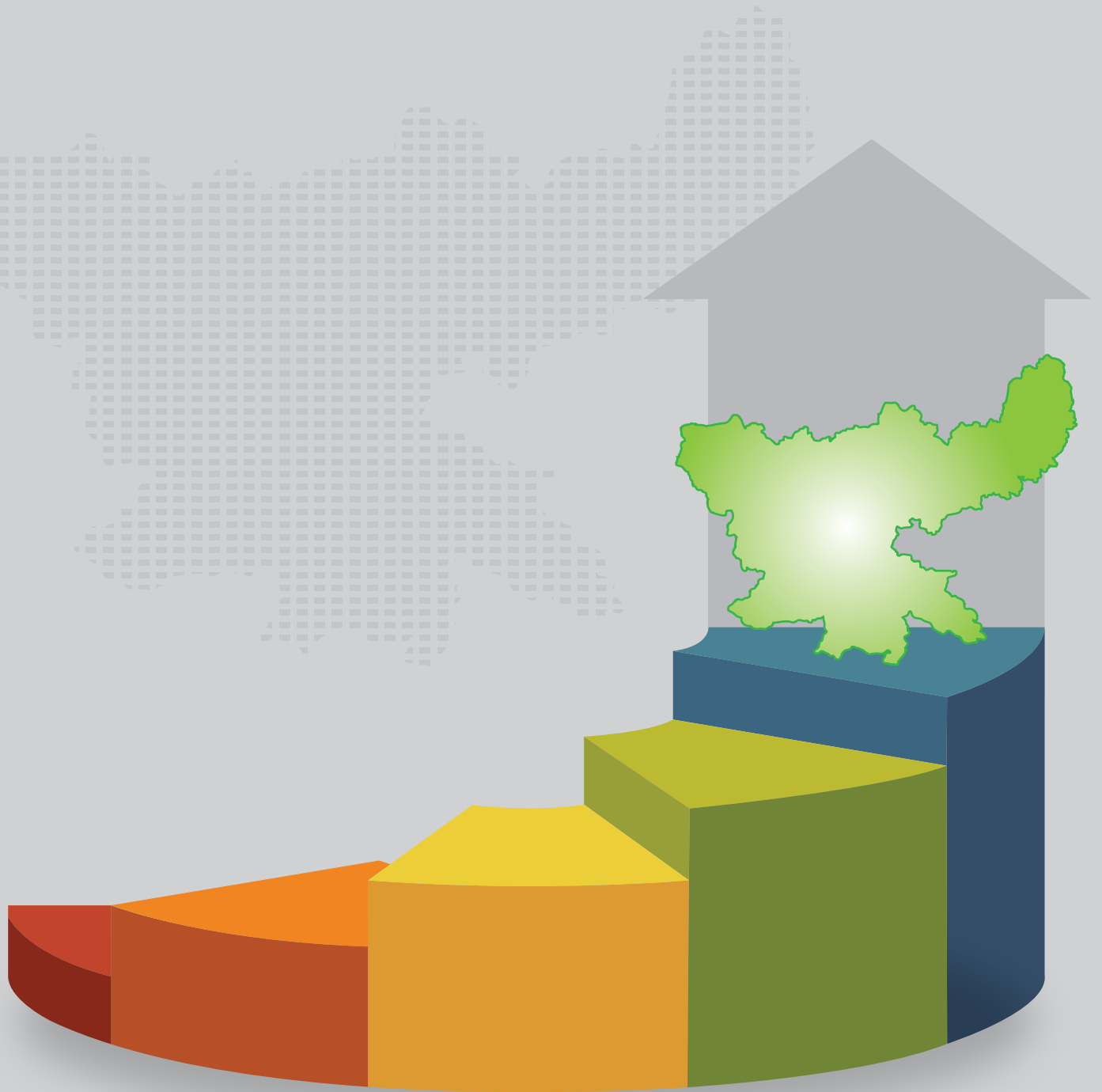
In order to increase enrolment, a large number of schools have been set up in the state. But many of them were so small that ensuring quality education in these schools became difficult. In order to ensure quality education and learning outcomes, Jharkhand has pursued school mergers on a large scale in the academic years 2016-17 and 2017-18. As a result of the reorganisation of schools the number of schools has decreased by 10.9 per cent in the year 2017-18. The primary schools have decreased by 14.2 per cent and the middle schools by 6.8 per cent.

Most of the schools in Jharkhand are in good condition and are equipped with all the basic facilities. The SCR in these schools have also improved over the years. Though the number of teachers in the government schools has remained almost the same between 2013-14 and 2017-18, the PTR has improved in all the sections, except at the higher secondary level.

The GER in the higher education has continuously improved from 7.5 per cent in 2010-11 to 18 per cent in 2017-18. However, it is still less than the national average which is 25.8 per cent. The infrastructures are also improving and three new private universities have been established in the last year. To increase employability of youths, more than 100 privately run ITIs and about 59 state run ITIs are imparting vocational education in the state.

XII

HEALTH



To 'ensure healthy lives and promote well-being for all ages', is one of a key 'Sustainable Development Goal (SDG-3)' and the state of Jharkhand is committed to achieve it. In order to achieve it, the state is working towards achieving universal health coverage including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all (SDG-3.8). The state, over the years, has succeeded in expanding its health facilities, increasing the number of health personnel and reducing the malnutrition, morbidity and mortality in the state.

Status of Health and Nutrition in Jharkhand

The health and nutritional status of the people of Jharkhand has improved over the years. As a result of the concerted efforts of the government in promoting health infrastructure and health facilities the malnutrition, morbidity and mortality rates have decreased in the state.

Malnutrition: The data of National Family Health Survey (NFHS) shows that Jharkhand lags behind the national average in all indicators of nutrition. As per

the NFHS-IV (2015-16) data, nearly 45 per cent of the children under five years of age are stunted, 29 per cent are wasted, about 11 per cent are severely wasted and almost 48 per cent are underweight. The percentage of malnourished children in Jharkhand, as mentioned above, is much higher than the all India average. The percentage of stunting in Jharkhand is about 18 per cent higher than that in India. Similarly, the percentage of wasted is 38 per cent, severely wasted is 52 per cent and underweight children is 34 per cent higher in Jharkhand than in all India.

There is widespread prevalence of anaemia also in the state. About 70 per cent of children aged 6-59 months, 65 per cent of women aged 15-49 years and about 30 per cent of men aged 15-49 years have been reported to be anaemic. Prevalence of anaemia is higher in Jharkhand than the country on the whole. Anaemia in children is 20 per cent, in women 23 per cent and in men about 32 per cent higher in the state than the all India average. Similarly, a larger percentage of men and women have less than the normal body mass index in Jharkhand than at the all India.

Table 12.1: Malnutrition in Jharkhand and India in 2005-06 and 2015-16

(in percentage)

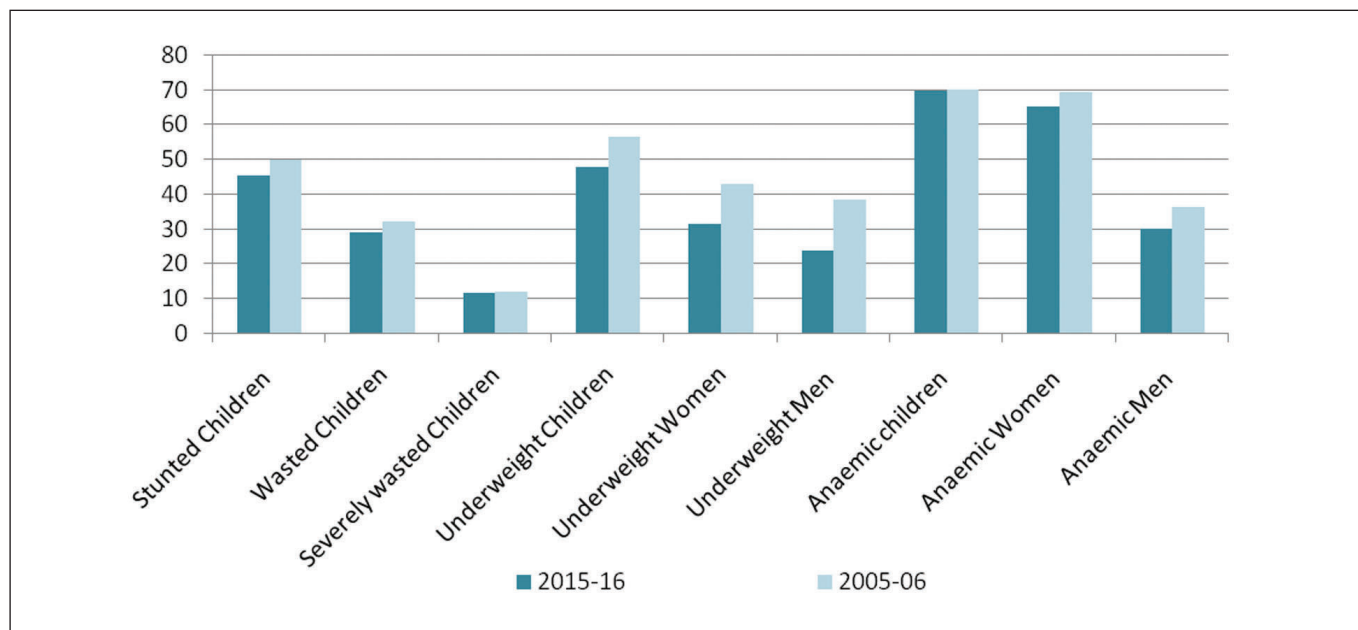
Indicator	2015-16		2005-06		Growth rate
	India	Jharkhand	India	Jharkhand	
Children under 5 years who are stunted	38.4	45.3	48	49.8	-9.0
Children under 5 years who are wasted	21	29	19.8	32.3	-10.2
Children under 5 years who are severely wasted	7.5	11.4	6.4	11.8	-3.4
Children under 5 years who are underweight	35.7	47.8	42.5	56.5	-15.4
Women with below normal BMI	22.9	31.5	35.5	42.9	-26.6
Men with below normal	20.2	23.8	34.2	38.6	-38.3
Children age 6-59 months who are anaemic	58.4	69.9	69.4	70.3	-0.6
Women age 15-49 years who are anaemic	53	65.2	55.3	69.5	-6.2
Men age 15-49 years who are anaemic	22.7	29.9	24.2	36.5	-18.1

Source: NFHS –III & NFHS –IV.

A comparison of NFHS-III and NFHS-IV results, however, shows that the state has succeeded in reducing malnutrition over the years. In last ten years the percentage of women and men below normal BMI has reduced by about 27 and 38 per cent, respectively; the percentage of children who are stunted, wasted,

severely wasted and underweight has also decreased by about 9 per cent, 10 per cent, 3 per cent and 15 per cent, respectively and the percentage of anaemic children, women and men has decreased by about 0.6 per cent, 6 per cent and 18 per cent, respectively.

Figure 12.1: Incidence of Malnourishment in Jharkhand in 2005-06 and 2015-16



Mortality: The key mortality measures, such as Infant Mortality Rate (IMR), Under-five Mortality Rate (U5MR), Maternal Mortality Rate (MMR), and Crude Death Rate (CDR) are used to indicate a state’s overall health¹. According to the Annual Health Survey (2012-13), in Jharkhand the IMR was 36 per 1,000 live births, U5MR was 51 per 1,000 live births, MMR was 245 per 100,000 live births, and CDR was 5.7 per 1,000 people, per year. The mortality rates have declined steadily over the years. The Infant Mortality Rate (IMR) was reported

to be 34 per thousand live births in the year 2014 (SRS-2014), which further declined to 29 in the year 2016 (SRS-2016). Similarly, the maternal mortality rate was reported to be 208 per lakh live births in the year 2014 (SRS-2014) further declined to 165 in the year 2016 (SRS-2016). Infant mortality rate in this period has declined at the annual rate of 10 per cent and the maternal mortality rate has declined at the annual rate of 17 per cent.

Table 12.2: Infant and maternal mortality rate in Jharkhand

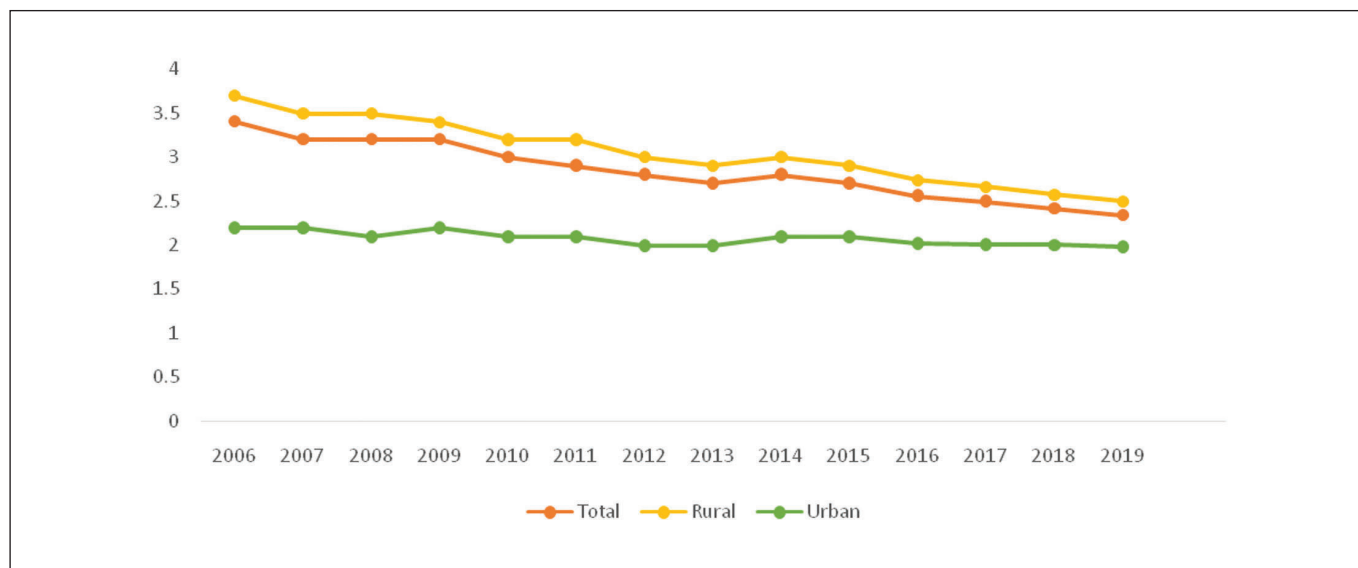
	2012-13	2014	2016
Infant Mortality Rate	36	34	29
Maternal Mortality Rate	245	208	165

Fertility Rate: The total fertility rate (TFR), which is expressed as the average number of births per woman has also shown a declining trend in Jharkhand. It was reported to be 2.8 by the Annual Health Survey (2012-13) and SRS (2014). It declined to 2.6 in the year

2016 (SRS 2016). It is expected to decline further and is expected to be 2.5 in the rural areas and 2.0 in the urban areas in 2019. With this declining rate, the state is expected to reach the replacement rate of population very soon.

¹ IMR measures the number of deaths of infants less than one year of age per 1,000 live births. U5MR measures the number of deaths of children less than five years of age per 1,000 live births. MMR measures number of women in their reproductive age (15-49 years) dying due to pregnancy and childbirth related causes per 100,000 live births. CDR measures the total number of deaths per 1,000 persons per year.

Figure 12.2: Trends in the Total Fertility Rate



Source: Health and Family Welfare Statistics in India 2017, Ministry of Health and Family Welfare, Government of India

Coverage of health facilities

Improvement in health and nutritional status in Jharkhand has taken place because of expansion in the coverage of health facilities. According to the National Family Health Survey – IV (2015-16), nearly 30 per cent mothers had at least four antenatal care (ANC) visits, 62 per cent mothers had institutional births, 62 per cent of children aged 12-23 months were fully immunized. In these indicators the state has almost reached the national average. Only 33 per cent children under age

3 years were breastfed within one-hour of birth, which is below the national average of 42 per cent. However, a higher number of children under 6 months of age (65%) were exclusively breastfed in this state, which is higher than the national average of 55 per cent. There has been further improvement in these indicators. In the year 2018-19, till October 2018, about 97 per cent of the mothers received antenatal care, 79 per cent births took place in institutions and 59 per cent of the children in the age group 12 to 23 months were fully immunized.

Table 12.3: Selected Health Indicators for Jharkhand

Indicators	2015-16*	2018-19 (till October 2018)**
Mothers who had at least 4 antenatal care visits (%)	30.3	97
Institutional births (%)	61.9	79
Children aged 12-23 months fully immunized	61.9	59
Children below 3 years breastfed within one hour of birth (%)	33.2	
Children under 6 months exclusively breastfed (%)	64.8	

Source: *National Family Health Survey – 4 (2015-16) ** Source: Department of Health, Medical Education and Family Welfare and Medical Education

Maternal Health

Antenatal Care

Maternal and reproductive health services are essential to ensure the good health of women, infants, and toddlers.

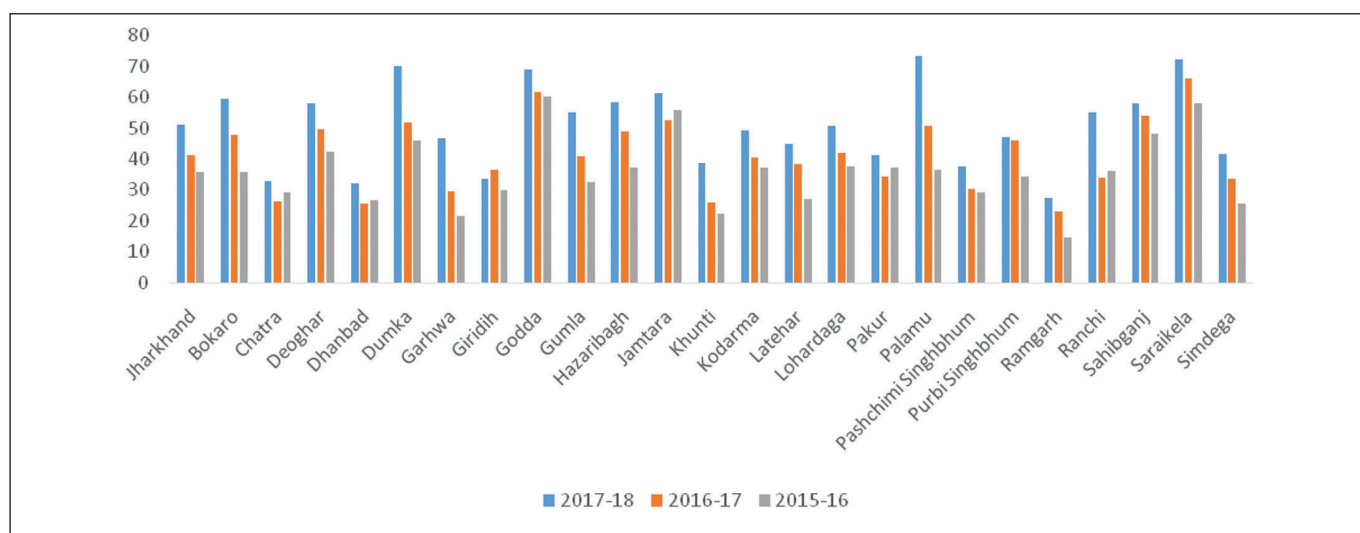
These services include curative and preventative health services for the women of reproductive ages. Jharkhand has strived to improve maternal health as they contribute to the overall progress of the country. Maternal health during pregnancy is extremely crucial to ensure good

health of the mother and her newborn. Therefore, health check-ups and proper nutrition support during pregnancy are imperative. Antenatal care (ANC) or prenatal care is necessary to ensure health-care during pregnancy. Its goal is to provide necessary and regular health check-ups to pregnant women to prevent pregnancy and childbirth-related health complications during the entire course of pregnancy and delivery and promote health in both mothers and their children. Pregnancy is divided into three trimesters (1st, 2nd and 3rd trimesters) and each trimester lasts between 12 to 14 weeks of gestation. Sooner a mother opts for ANC,

the better it ensures good health in a mother and her children.

Jharkhand has shown an increase in the percentage of first-trimester registration to total number of ANC registrations from 35.9 per cent in 2015-16 to 51 per cent in 2017-18. All the districts of Jharkhand have shown an increase in the 1st-trimester registration to total ANC registration from 2015-16 to 2017-18. Palamu district has shown the highest increase, with 73.5 per cent of mothers opting for ANC during the 1st trimester, closely followed by Saraikelaat 72.3 per cent and Dumka at 70.3 per cent in 2017-18.

Figure 12.3: Percentage of 1st Trimester Registration to Total ANC Registration



Source : Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

According to 2016 World Health Organization (WHO) ANC guidelines, a minimum of eight ANC contacts are recommended. The first contact with the health-care provider is scheduled to take place in the first trimester, two contacts scheduled for the second trimester and five contacts scheduled in the third trimester to reduce the risk of stillbirths and pregnancy related complications and to give women a positive pregnancy - experience. The figures in Table 1 show that nearly 77.1 per cent of pregnant women received 4 ANC check-ups to total ANC registrations in 2017-18 with a majority of the districts showing a high percentage of women receiving at least 4 ANC check-ups. Almost 91.9 per cent women in Jamtara district received 4 ANC check-ups followed by 90.2 per cent women in Purbi Singhbhum. To prevent infections of mothers and children during childbirth, and avoid neo-natal mortality, Tetanus toxoid (TT)

injections are recommended during different phases of pregnancy. Almost 86 per cent of pregnant women out of the total women registered for ANC received TT injections. Nearly all women were immunized in Chatra and nearly 98 per cent in Kodarma. Iron and Folic acid (IFA) supplements during pregnancy are essential to meet pregnant mothers’ nutritional needs as well as those of their developing foetus. Deficiency of iron and folic acid during pregnancy may negatively affect the mother and the development of her newborn. Iron and folic acid supplementations during pregnancy have reduced the chances of iron deficiency and anaemia in pregnant women. Roughly 68 per cent of pregnant women registered under ANC in Jharkhand received 180 IFA. More than 93 per cent of pregnant women in the districts of Simdega, Hazaribagh, and Godda received 180 IFA during the third quarter of FY 2017-18.

Table 12.4: Percentage Pregnant Women Received ANC to Total ANC Registrations

	% Pregnant woman received 4 ANC check-ups to total ANC registrations	% Pregnant women received TT2+ TT booster to total ANC registrations	% Pregnant women given 180 IFA to total ANC registration
Jharkhand	77.1	86.4	67.8
Bokaro	82.7	82.4	57.4
Chatra	69.9	104.4	84.4
Deoghar	71.1	83	79.6
Dhanbad	88	85.1	41.7
Dumka	78.6	89.5	46.9
Garhwa	75.3	78.1	95.9
Giridih	81.8	94.9	92.1
Godda	81.1	95.6	93.3
Gumla	70.3	87.1	12
Hazaribagh	67.7	90.2	93.6
Jamtara	91.9	89.6	78.6
Khunti	59.4	91.5	65.3
Kodarma	78.8	98.1	61.8
Latehar	46.7	67	23.3
Lohardaga	84.1	85.9	72.8
Pakur	73.6	88	66
Palamu	73.7	82.1	80.9
PashchimiSinghbhum	76.1	89.4	65.2
PurbiSinghbhum	90.2	78.8	80.9
Ramgarh	82.7	87.4	90
Ranchi	73.7	78	51.6
Sahibganj	66.8	91.1	39.1
Saraikela	84.5	92.4	74.4
Simdega	87.7	89.9	93.6

Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

Institutional deliveries under trained health-care professionals and in hospital settings ensure a reduction in the likelihood of maternal and neonatal mortalities. Between 2015-16 and 2017-18, the number of institutional deliveries to the total deliveries in Jharkhand increased from 67.2 per cent to 76.4 per cent. Almost all the districts show an increase in the percentage of

institutional deliveries. Nearly 75 per cent of births took place in public institutions and almost 25 per cent in private institutions with Chatra and Garwa having almost 100 per cent deliveries in public institutions. These figures show more women are choosing public health-care facilities for childbirth.

Table 12.5: Percentage of Institutional Deliveries

	% Institutional Deliveries to total ANC registrations			% Deliveries conducted at Public Institutions to Total Institutional Deliveries			% Deliveries conducted at Private Institutions to Total Institutional Deliveries		
	2017-18	2016-17	2015-16	2017-18	2016-17	2015-16	2017-18	2016-17	2015-16
Jharkhand	76.4	74.1	67.2	74.7	70.9	71.1	25.3	29.1	28.9
Bokaro	82.3	79.8	74.5	42	38.1	34.9	58	61.9	65.1
Chatra	66.6	58	50	99.9	99.7	99.8	0.1	0.3	0.2
Deoghar	79	77.3	78.2	82.4	79.5	82.9	17.6	20.5	17.1
Dhanbad	79.6	88	88.2	28.1	27.8	27.2	71.9	72.2	72.8
Dumka	74.2	68.3	53.5	90.2	77.7	89.7	9.8	22.3	10.3
Garhwa	76.1	83.8	76.8	99.6	93.6	93.1	0.4	6.4	6.9
Giridih	79.6	69.2	62.5	73	71.5	72	27	28.5	28
Godda	88.2	87.1	78.5	97.8	97	98.2	2.2	3	1.8
Gumla	70.6	67.7	70.8	93.6	90.8	87.5	6.4	9.2	12.5
Hazaribagh	77	77.9	70.6	85.5	78.6	76.5	14.5	21.4	23.5
Jamtara	80.7	70.3	76	82.8	75.9	86.1	17.2	24.1	13.9
Khunti	69	68.8	61.3	93.1	92.4	87.6	6.9	7.6	12.4
Kodarma	89.2	92.1	91.9	74.8	70.7	70.7	25.2	29.3	29.3
Latehar	55.7	72.4	59.5	97.7	94.3	92.4	2.3	5.7	7.6
Lohardaga	74.1	73.1	56.5	94.3	87.9	89	5.7	12.1	11
Pakur	60.9	54.5	45.8	79.7	80.9	59.9	20.3	19.1	40.1
Palamu	76.8	72.1	58.7	78.1	68.8	72.2	21.9	31.2	27.8
Pashchimi Singhbhum	73.6	66.5	55.2	92.7	90.1	90	7.3	9.9	10
Purbi Singhbhum	71.8	74.6	61.6	57.8	50.1	53.2	42.2	49.9	46.8
Ramgarh	70.8	70.5	51.9	69.1	61.4	81.3	30.9	38.6	18.7
Ranchi	79.8	67.4	68.8	62	68.5	67.2	38	31.5	32.8
Sahibganj	87.9	87.7	77	95.9	96	94.9	4.1	4	5.1
Saraikela	76.7	71.6	77.1	50.7	53.7	46.7	49.3	46.3	53.3
Simdega	74.4	79.1	73.8	88.4	76.2	73.1	11.6	23.8	26.9

Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

Childbirth-related outcomes were also noteworthy. The percentage of safe deliveries to total reported deliveries has increased by almost 12 per cent - from almost 85 per cent in 2015-16 to 97 per cent in 2017-18. Jharkhand

experienced nearly 100 per cent live births. These figures are consistently high for the different districts of the state.

Table 12.6: Percentage of Safe Deliveries and Live Births

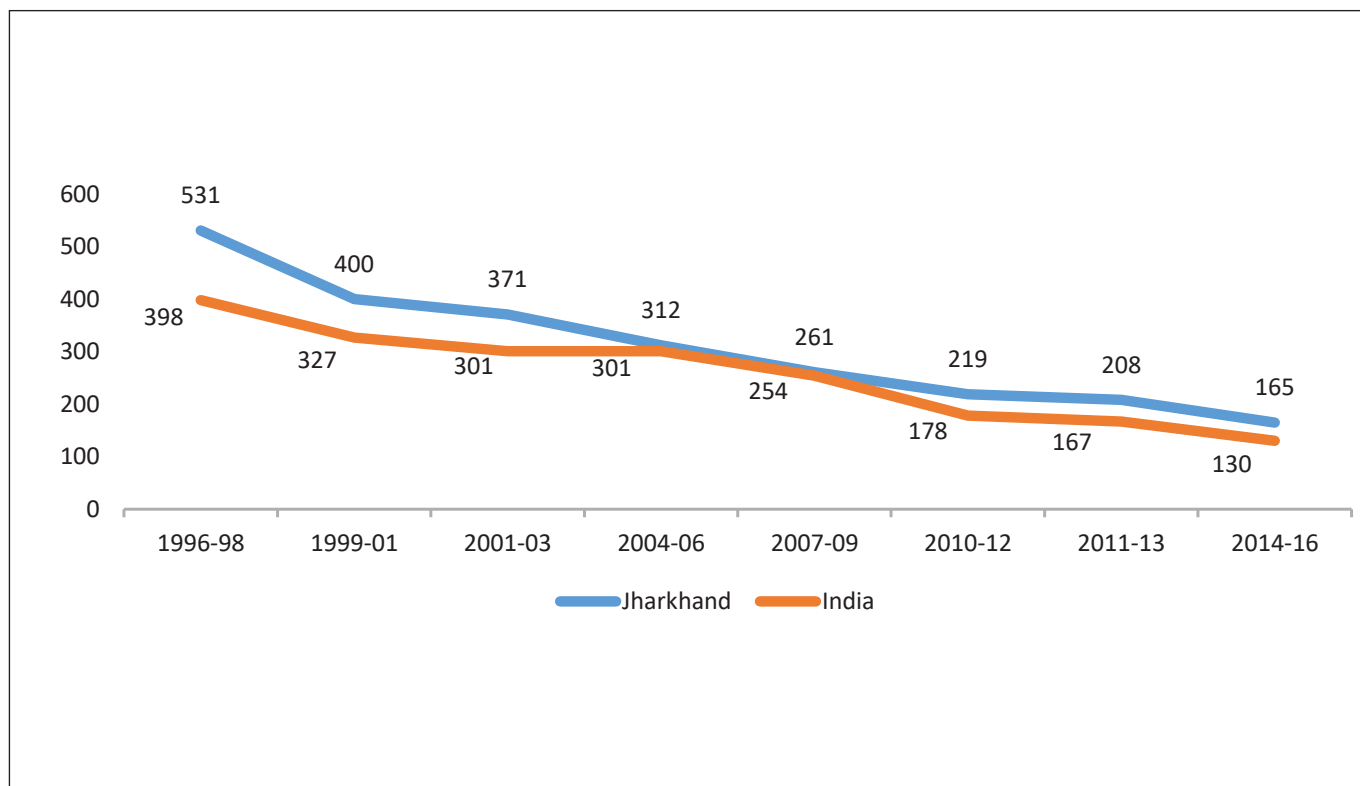
	% Safe deliveries to the Total Reported Deliveries			% Live Births to the Total Deliveries		
	2017-18	2016-17	2015-16	2017-18	2016-17	2015-16
Jharkhand	97	92.2	84.9	99.7	99.7	99.3
Bokaro	97.5	94.2	90.3	100	100	100.1
Chatra	92.3	88.3	79	99.6	99.7	100.9
Deoghar	95.7	93.1	90.2	99.3	99.3	99.3
Dhanbad	97.5	94.5	89.9	99.6	100.8	101.2
Dumka	98.9	87.2	74.5	99	99.4	99.5
Garhwa	97.7	92.6	84.2	100.4	97.8	98.8
Giridih	96	87.1	79.3	100.6	102.6	101.5
Godda	99.7	98	92.9	99.1	98.7	98.1
Gumla	97.7	93.4	81.7	98.2	98.9	99
Hazaribagh	98.3	90.7	84.9	102.8	99	99.8
Jamtara	98.7	94.1	82.7	99	99.6	94.5
Khunti	96.4	87.4	77.6	98.9	99.2	99.1
Kodarma	99.8	99.4	99.6	99.1	99.4	98.7
Latehar	93.8	88.2	77.5	98.7	98.7	99.1
Lohardaga	99.9	96.9	94.9	99.3	98.5	99.7
Pakur	91.1	79.7	58.4	100.8	99.1	99.7
Palamu	99	95.8	88.1	99.3	98.9	100
Pashchimi Singhbhum	95.1	88	77	99.2	99.6	98.6
Purbi Singhbhum	98	95.1	92.1	98.9	100.1	99.6
Ramgarh	96.1	90.5	79.8	102.1	100.4	101
Ranchi	98.1	95.1	91	99.7	99.6	99.5
Sahibganj	96.1	92.2	87.7	98.8	99.1	98.2
Saraikela	95.5	92.7	83	99.6	100.1	93.1
Simdega	96.1	88.2	79.9	98.4	99.5	98.7

Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

As mentioned above, the Maternal Mortality Ratio (MMR) has been showing a steady decline in the state. The recent statistics from SRS showed a decline in MMR during childbirth from 208 in 2011-13 to 165 in 2014-16. This steady decrease in MMR can be attributed to the impact of RCH-I programme which started in 1998, followed by the National Rural Health Mission

(NRHM)/Reproductive and Child Health (RCH) - II since 2005 and the more recent Reproductive, Maternal, Neonatal, Child Health and Adolescents (RMNCH+A) life cycle approach further contributed to this reduction. Another essential cause behind this reduction in MMR is safe institutional delivery which has shown an increase of nearly 10 per cent from 2015-16 to 2017-18.

Figure 12.4: Trends in Maternal Mortality Ratio (MMR)



Source: Health and Family Welfare Statistics in India 2017, Ministry of Health and Family Welfare, Government of India

The state has been continuously taking measures, including, increased institutional delivery, ensuring full ANC coverage and check-ups, increased post-natal care for women, as well as prevention of anaemia among pregnant women to reduce MMR. It has also taken several measures to prevent child marriages. One among them is Mukhbir Yojna. The health department has begun Mukhbir Yojna to stop child marriage, which is 38 per cent in the state. The department is also trying to spread awareness among villagers in rural Jharkhand through Sahiyas to curb teenage pregnancy.

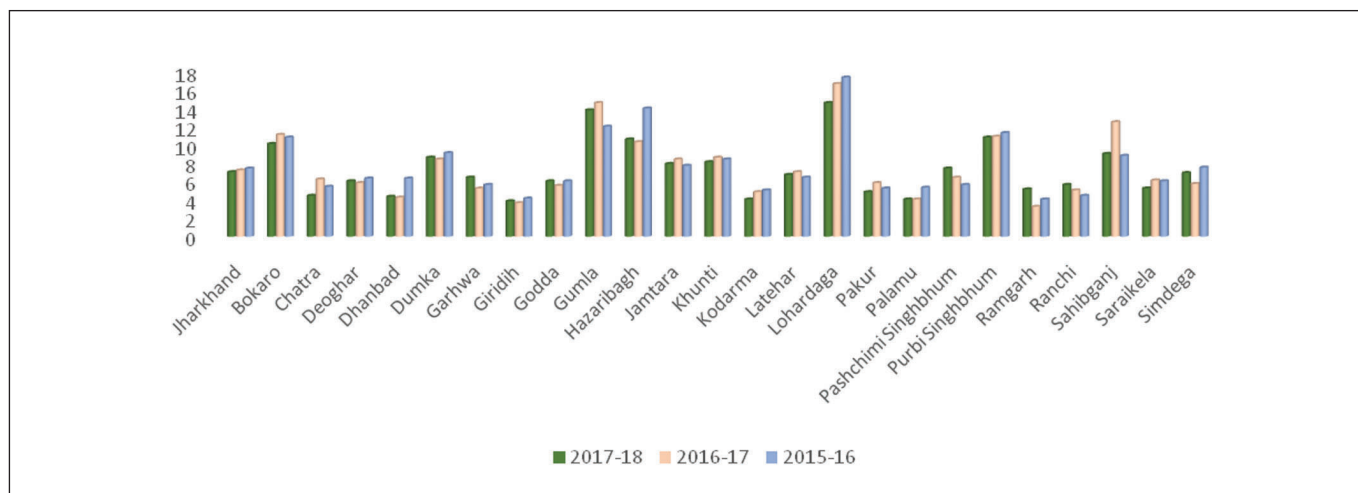
The health department is continuously working towards facilitating core skill training of health workers to address ANC, prenatal and PNC situations, strengthening MCH tracking system, scaling up of the labour rooms in the tribal areas, HIV/AIDs screening, promoting house-visits by Sahiyyas, AWWs, ANMs within 48 hours of delivery. It has focussed particular on the low performing districts.

Child Health

Children are considered to be the future of a nation. Therefore, their health is of utmost importance to a

country’s well-being and needs urgent attention. There are several indicators like IMR, U5MR and child growth status (age-weight),etc., which are used to explain the child health situation of a state. For the past several years, Jharkhand has shown a decreasing trend in IMR and U5MR. The decline in infant mortality can be credited to the initiation of Reproductive and Child Health (RCH) programme and specific focus on infant and child health interventions for reducing neonatal and infant mortality under NRHM since 2005.

Regarding other health indicators, on an average, Indian babies weigh between 2500 gms (2.5 kgs) to 2900 gms (2.9 kgs) when born full term (born between 37 weeks to 42 weeks of pregnancy). According to WHO, any baby born with less than 2.5 kgs of body weight is termed as a “low birth weight” baby. Only 7 per cent babies in Jharkhand had low birth weight in 2017-18. The figures below show that districts like Lohardaga and Gumla although had high (nearly 15 per cent and 14 per cent, respectively) low birth weight babies in 2017-18, but these percentages have decreased from the figures in the previous years (nearly 17 per cent and 15 per cent, respectively, in 2016-17).

Figure 12.5: Percentage of Newborns having Weight Less than 2.5 kg to Newborns Weighed at Birth


Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

Breastfeeding has several health benefits for both the mother and the newborn. Breast milk contains different essential nutrients an infant needs during the first six months of life. Breast milk acts as a protection against common childhood diseases like diarrhoea and pneumonia, and may also have long-term health benefits, such as reducing the risk of overweight and obesity in childhood and adolescence. Therefore, WHO recommends initiation of breastfeeding as soon as possible after childbirth, within the first hour after delivery. Nearly 92 per cent of babies received breast milk after 1 hour of their birth. Lohardaga, Saraikela, Khunti and Dumka showed remarkable success in this indicator with almost 98 to 99 per cent of children breastfed during the first hour of their birth.

Table 12.7: Percentage Infant Breastfed within 1 hour of Birth to Total Live Births

	% Newborns breastfed within 1 hour of birth to Total live birth		
	2017-18	2016-17	2015-16
Jharkhand	92.2	91	93.1
Bokaro	92.2	97.5	95.6
Chatra	93.2	94.5	95.5
Deoghar	97.2	98.2	96.9
Dhanbad	74.6	69.3	86.9
Dumka	98	96.7	96.9
Garhwa	97	96.1	90.4
Giridih	76.3	77.2	80.3

	% Newborns breastfed within 1 hour of birth to Total live birth		
	2017-18	2016-17	2015-16
Godda	97.3	96.3	96.1
Gumla	95.3	96.8	98.4
Hazaribagh	97.2	97.2	95.5
Jamtara	95.5	96.4	91.8
Khunti	98.1	91.1	97.6
Kodarma	86.7	97.4	91.9
Latehar	97.2	95.1	92.3
Lohardaga	98.8	98.7	98.4
Pakur	93.2	97.2	89.9
Palamu	88.2	75.4	92.4
Pashchimi Singhbhum	95.3	91.9	92.1
Purbji Singhbhum	94.5	88.4	88.5
Ramgarh	96.6	99.2	96.6
Ranchi	97.8	99	99.5
Sahibganj	93	93.4	95.6
Sarakikela	98.7	95.8	94.8
Simdega	95.7	97.6	97.4

Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

The figures indicating the number of children suffering from anaemia are dismal in the state. According to the National Health Policy report (2018), nearly 70 per cent children aged between 6 and 59 months were anemic (<11.0g/dl). The high prevalence of anaemia among children can be attributed to the high prevalence of anaemia among women in their reproductive ages 15-49 years (almost 65%) and among pregnant women (63%).

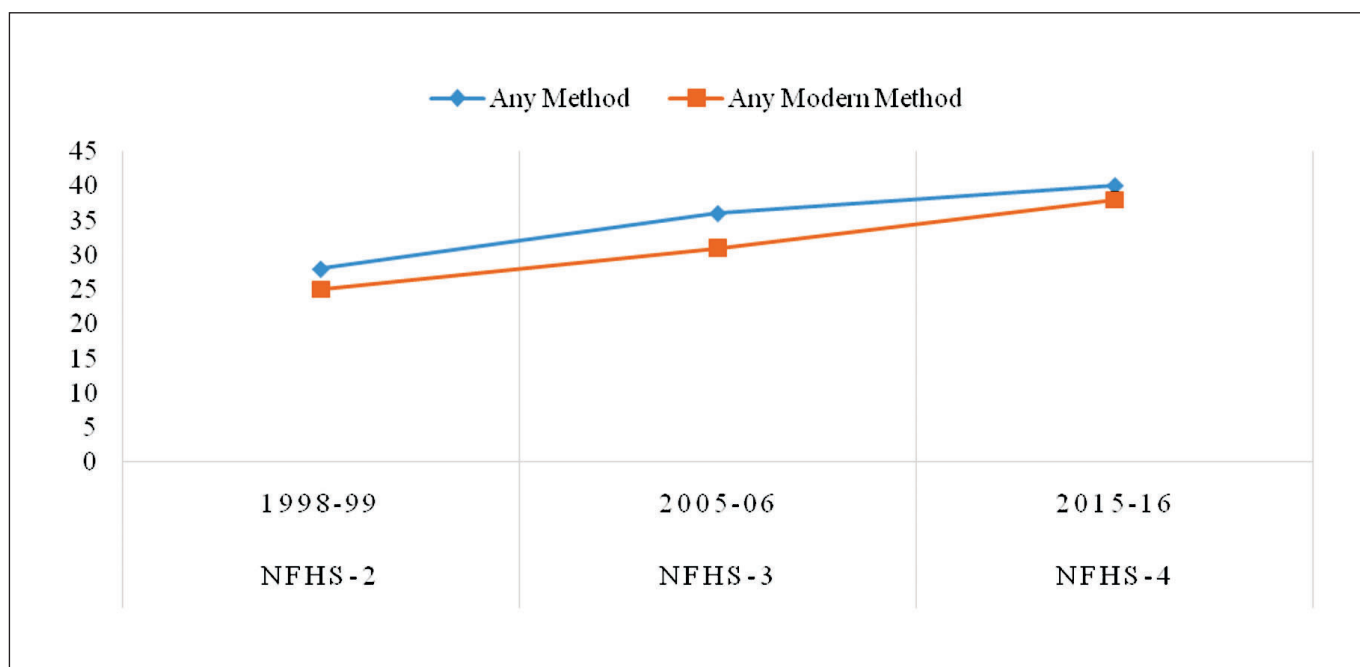
However, Jharkhand shows promising figures concerning child immunization and vitamin A supplementation. According to NFHS 4 (2015-16), nearly 62 per cent of children aged 12 to 23 months were fully immunized (BCG, measles, and 3 doses each of Polio and DPT). Out of these children, almost 96 per cent received BCG, 74 per cent received 3 doses of polio, 82 per cent received 3 doses of DPT vaccine, 83 per cent received measles vaccine, and nearly 56 per cent received 3 doses of Hepatitis B vaccine. In addition, 53 per cent children age 9 to 59 months received a vitamin A dose

in the last six months. However, there are 30 high-risk blocks across seven districts of the state having a very low coverage for immunization (NFHS- 4). The state has planned to intensify its efforts of providing health facilities in the blocks and districts which are lagging behind the state average in important health indicators.

Family Planning

Family planning gives the ability to decide about the number of children and the spacing between children. It improves the health of the mother, children, and the entire family. A small family is a widely desirable norm, and the expected fertility rate for India is 1.8. According to National Family Health Survey 4 (NFHS-4, 2014-15), awareness about contraception is almost universal with nearly 99 per cent awareness among women and men. The NFHS-4 survey reports that almost 54 per cent married women in their reproductive age (15-49 years) use contraceptive methods and nearly 48 per cent use modern contraceptive methods.

Figure 12.6: Prevalence of Contraception

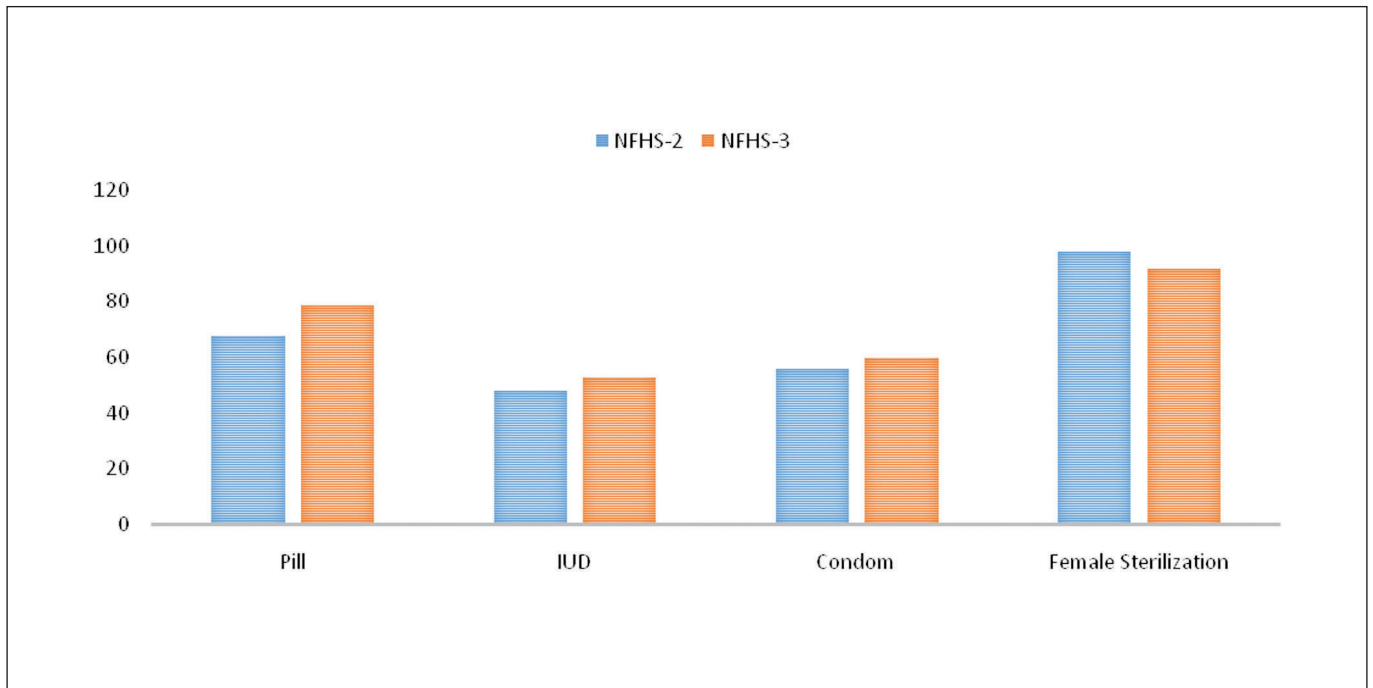


Source: National Family Health Survey – 4 Report, <http://rchiips.org/NFHS/NFHS-4Reports/Jharkhand.pdf>

The government promotes three temporary contraceptive methods: the birth control pills, the IUD, and condoms. Almost 79 per cent of the currently married women knew about birth control pills, 53 per cent about IUD, 60 per cent about condom use and almost 92 per cent about female sterilization in 2005-06. The use of Contraceptives is higher in urban areas (47%) than in the

rural areas (38%). The NFHS-4 report also emphasizes that women in Jharkhand with at least one son are more likely to use contraception, for example, 52 per cent women with at least one son out of two children, use family planning methods, as compared to 23 per cent with two daughters and no son.

Figure 12.7: Different Methods of Contraception

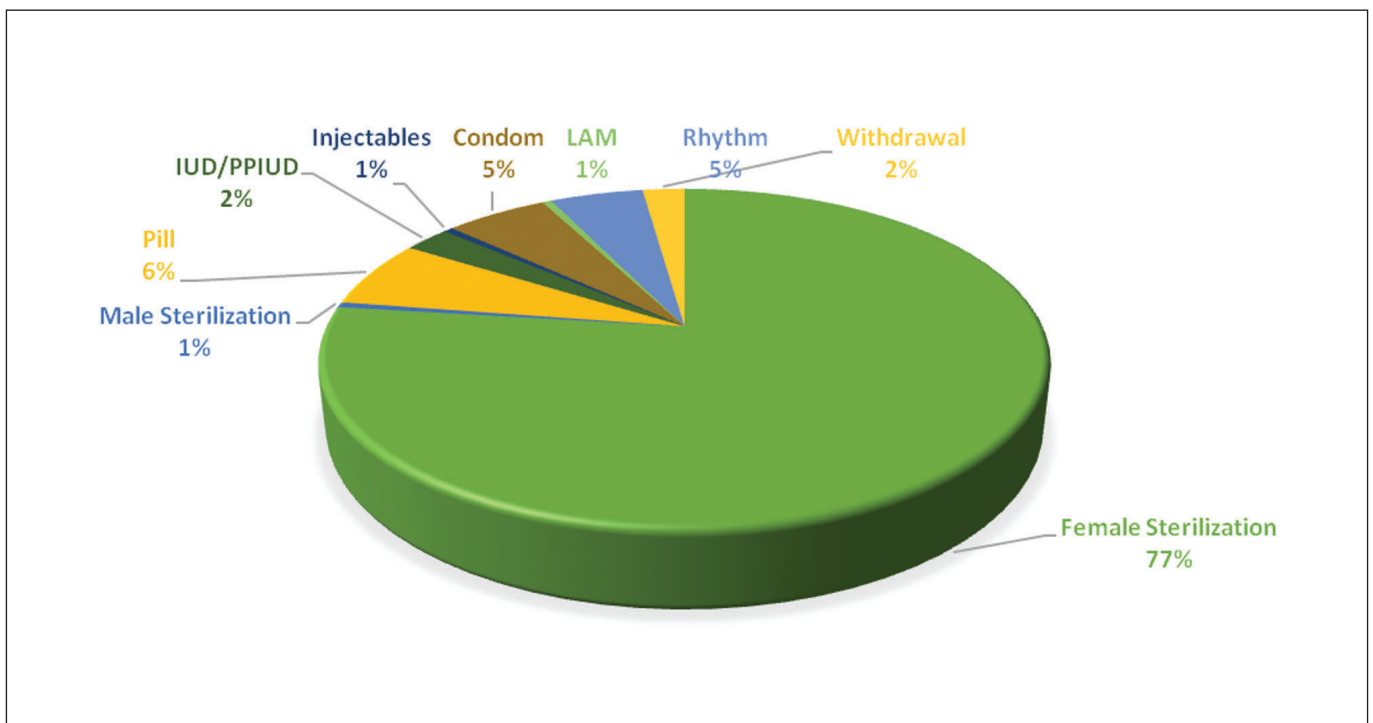


Source: National Family Health Survey – 3 Report, <https://dhsprogram.com/pubs/pdf/frind3/frind3-vol1andvol2.pdf>

Currently, married women use different methods of contraception. Seventy-seven per cent of women used female sterilization methods in comparison to only 1 per

cent male sterilization. Six per cent used birth control pills, 5 per cent used a condom, and 2 per cent opted for IUD or PPIUD insertion during 2015-16.

Figure 12.8: Contraceptive Methods that Currently Married Women Use



Source: National Family Health Survey – 4 Report, <http://rchiips.org/NFHS/NFHS-4Reports/Jharkhand.pdf>

In 2017-18, the total number of sterilizations conducted was 39, 213, which slightly decreased from the 2015-16

figures (47, 067) and 2016-17 figures (51, 027).

Table 12.8: Total Number of Sterilizations Conducted

	2017-18	2016-17	2015-16
Jharkhand	39,213	51,027	47,067
Bokaro	3,336	2,454	4,369
Chatra	1,169	1,189	1,155
Deoghar	1,488	1,683	1,429
Dhanbad	2,513	2,869	2,231
Dumka	708	953	875
Garhwa	3,721	5,512	4,139
Giridih	3,178	2,575	3,152
Godda	1,285	1,632	1,217
Gumla	688	716	991
Hazaribagh	1,070	2,460	2,437
Jamtara	241	529	726
Khunti	183	184	372
Kodarma	1,826	2,115	1,867
Latehar	1,033	579	459
Lohardaga	467	591	585
Pakur	475	524	901

	2017-18	2016-17	2015-16
Palamu	5,863	13,777	9,717
Pashchimi Singhbhum	849	1,042	1,289
Purbi Singhbhum	2,684	1,857	1,788
Ramgarh	1,691	2,020	1,856
Ranchi	2,887	3,250	3,300
Sahibganj	1,139	1,136	461
Saraikela	551	1,040	1,175
Simdega	168	340	576

Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

In the total number of sterilizations the female sterilization is the most common. The share of female sterilization has increased from 95.2 per cent in 2015-16 to 97.6 per cent in the third quarter of 2017-18. The share of male sterilization, thus, dropped from 4.8 per cent in 2015-16 to 2.4 per cent up to the third quarter of 2017-18.

Table 12.9: Percentages of Male and Female Sterilizations Conducted in respect to Total Sterilizations

	% Male Sterilization (Vasectomies) in respect to Total sterilization			% Female Sterilization (Tubectomies) in respect to Total sterilization		
	2017-18	2016-17	2015-16	2017-18	2016-17	2015-16
Jharkhand	2.4	3.7	4.8	97.6	96.3	95.2
Bokaro	1.8	4	12.9	98.2	96	87.1
Chatra	2.2	2.4	5.3	97.8	97.6	94.7
Deoghar	0.3	0.5	0.3	99.7	99.5	99.7
Dhanbad	0.3	0.9	1.7	99.7	99.1	98.3
Dumka	1.1	1.8	2.2	98.9	98.2	97.8
Garhwa	0.4	2.7	0.4	99.6	97.3	99.6
Giridih	0.7	0.9	2	99.3	99.1	98
Godda	4.7	5.9	6.2	95.3	94.1	93.8
Gumla	7.8	8.4	20.3	92.2	91.6	79.7
Hazaribagh	0.9	0.8	0.4	99.1	99.2	99.6
Jamtara	0.8	4.5	3.2	99.2	95.5	96.8
Khunti	18	21.7	30.6	82	78.3	69.4

	% Male Sterilization (Vasectomies) in respect to Total sterilization			% Female Sterilization (Tubectomies) in respect to Total sterilization		
	2017-18	2016-17	2015-16	2017-18	2016-17	2015-16
Kodarma	0.7	0.8	1.6	99.3	99.2	98.4
Latehar	6.6	4.8	10.7	93.4	95.2	89.3
Lohardaga	7.5	10	14.5	92.5	90	85.5
Pakur	2.5	13.5	1.1	97.5	86.5	98.9
Palamu	0.4	0.5	0.7	99.6	99.5	99.3
Pashchimi Singhbhum	16	13.9	19.6	84	86.1	80.4
Purbi Singhbhum	0.8	7.7	1.3	99.2	92.3	98.7
Ramgarh	0.7	9	1	99.3	91	99
Ranchi	8.6	13.7	10.5	91.4	86.3	89.5
Sahibganj	0.5	0.4	1.1	99.5	99.6	98.9
Saraikela	4.5	3.8	4.7	95.5	96.3	95.3
Simdega	23.8	21.8	20.1	76.2	78.2	79.9

Source: Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

According to the NFHS-4 report, 74 per cent women used public sector facilities for sterilization operations, and 72 per cent IUD or PPIUD insertion took place in public sector health units (particularly CHC, rural hospital, block PHC, or a government hospital). Twenty per cent of pill users and 9 per cent of condom users get their supplies from the public sector health units. Jharkhand government is continuously trying to encourage family planning through:

1. Continuous counselling of the clients through audio-visuals and IEC and BCC methods and by Anganwadi Workers (AWW), Sahiya, Auxiliary Nurse Midwife (ANM)/ Lady Health Visitor (LHV) and family planning counsellors.
2. Biannual state-level review and monitoring.
3. Institutionalizing post-partum family planning services including sterilization and counseling services.
4. Family planning camps with a focus on female sterilization, IUCD services.
5. Training of Sahiyyas and Anganwadi workers with adequate compensation package.
6. Capacity building for skilled trainers.

7. Family planning insurance schemes.

The government needs to focus on the greater distribution of free contraceptive pills and condoms through public health facilities to promote contraception-use and should also encourage more male sterilization along with female sterilization for birth controls.

Communicable & Non-Communicable Diseases

Communicable diseases (including vector-borne diseases) are infectious diseases caused by microorganisms, such as bacteria, viruses, parasites, and fungi that can be spread directly or indirectly, from one person to another. Some are caused through insect bites or from food and water (WHO).

Vectors are living organisms, like mosquitoes and ticks that can transmit diseases from humans to humans or from animals to humans.

Among vector-borne diseases, annual malaria parasite incidence (API) is as high as 3.78. A low awareness about breeding sites for mosquitoes, scanty use of mosquito-nets and inadequate knowledge about the symptoms of disease are some of the key challenges resulting in the high incidence of malaria.

The table below provides information (cases and deaths) on vector-borne diseases in Jharkhand.

Table 12.10: Vector-Borne Diseases

	2013		2014		2015		2016		2017 (Provisional)	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Deaths Due to Malaria	97786	8	103735	8	104800	8	141414	15	92770	1
Clinically Suspected Chikungunya Cases	61		11		21		47		269	
Deaths Due to Dengue	161	0	36	0	102	0	414	1	707	5
Deaths due to Kala-Azar	2515	0	937	0	1262	0	1185	0	1358	0
Deaths Due to Acute Encephalitis Syndrome	270	5	288	2	217	8	296	5	266	1
Deaths Due to Japanese Encephalitis	89	5	90	2	116	8	47	5	29	1

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; Directorate of National Vector Borne Disease Control Programme, GHS, Ministry of Health & Family Welfare

Kala-azar is the second largest parasitic killer in the world. In India, *Leishmania donovani* is the only parasite that causes this disease (National Health Policy, 2018). Jharkhand government plans for complete eradication of incidences of Kala-Azar and drastically

reduce mortality due to Japanese Encephalitis by 2030.

Cases and deaths due to other communicable diseases that affect the state's population are presented in the table below:

Table 12.11: Other Communicable Diseases

	2016 (January to December)						2017 (Provisional)					
	Male		Female		Total		Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Deaths due to Cholera	3	0	2	0	5	0	0	0	0	0	0	0
Deaths due to Acute Diarrhoeal Diseases	51091	0	43657	0	94748	0	49654	0	41672	0	91326	0
Deaths due to Enteric Fever (Typhoid)	21473	0	20690	0	42163	0	21782	0	19362	0	41144	0

	2016 (January to December)						2017 (Provisional)					
	Male		Female		Total		Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Acute Respiratory Infection	147089	0	130386	0	277475	0	173823	0	151453	0	325276	0
Deaths due to Tetanus Neonatal	14	0	16	0	30	0	54	0	48	0	102	0
Tetanus Other than Neonatal	26	0	42	0	68	0	47	0	30	0	77	0
Deaths due to Diphtheria	1	0	6	0	7	0	15	0	5	0	20	0
Deaths due to Whooping Cough	2748	0	2382	0	5130	0	2270	0	2089	0	4359	0
Deaths due to Measles	232	0	206	0	438	0	257	0	217	0	474	0
Deaths due to Viral Hepatitis (All Causes)	832	0	574	0	1406	0	1102	1	752	3	1854	4
Deaths due to Pneumonia (All Causes)	3938	3	4008	1	7946	4	2032	2	1604	3	3636	5
Deaths due to Meningococcal Meningitis	23	0	11	0	34	0	8	0	0	0	8	0
Deaths due to Chicken Pox	464	0	393	0	873	0	448	0	362	0	810	0
Deaths due to Encephalitis	55	0	61	0	116	0	227	0	199	0	426	0
Deaths due to Viral Meningitis	18	0	21	0	39	0	56	0	37	0	93	0

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; Monthly Health Condition Reports from Directorate of Health Services of State/UT.

The total number of patients registered for the treatment of Tuberculosis (TB) in 2016 was 35,099, which increased to 36,861 in 2017. Microbiologically the confirmed cases were 4,506 in 2016 and 20,963 in 2017. The success rate of treatment marginally increased from 91 per cent in 2016 to 92 per cent in 2017. Significant delays by the patients in seeking treatment; self-

medication (predominantly among tribal community) and seeking care from traditional healers (quacks) have led to high patient-load. The state government plans to bring down the TB incidence rate to less than 5 per cent, increase the TB treatment success rate to more than 95 per cent, and reduce mortality due to TB by less than 1 per cent by 2030.

Table 12.12: TB Notification from the public and private sectors and Treatment Outcome

	2016 (Jan -Dec)	2017 (Jan -Dec)
Population Covered (in Lakh)	359	359
Total Patients Registered for Treatment	35099	36861
Microbiologically Confirmed	4506	20963
New Smear Positive - Treatment Success Rate	91%	92%
Number of Patients Notified by Private Sector	4415	7267

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; Revised National Tuberculosis Control Programme

At present, the leprosy prevalence rate is 1.15 per 10,000 persons in the state, which is higher than the national average of 0.74 per 10,000 persons. The government plans to eliminate leprosy from the state by 2030.

Table 12.13: Leprosy Case Detection, Treatment, and Discharge during FY 2017-18 (till December 2017)

	Total New Cases	Cases Discharged as Cured	Cases on Record Under Treatment	Prevalence Rate/10000 Population
Jharkhand	4227	3243	4298	1.15
India	98682	82851	99084	0.74

Source : National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; National Leprosy Eradication Programme, Dte. GHS, Ministry of Health & Family Welfare

H1N1 or the outbreak of swine flu is a cause of concern in India, and the lab-confirmed cases of H1N1 in Jharkhand are increasing each year from 16 in 2015 to 35 in 2017 (provisional).

Table 12.14: Lab Confirmed Cases and Deaths of Influenza A H1N1 (Swine Flu)

	2012		2013		2014		2015		2016		2017	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Jharkhand	0	0	0	0	0	0	16	6	1	1	35	2

Source : National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; Office of the Director, Emergency Medical Relief, Dte. GHS, Ministry of Health & Family Welfare (up to the year 2016)

HIV or AIDS tested (male and female) decreased from 1.7 per cent in 2016-17 to less than 1 per cent by the third quarter of 2017-18. The percentage of individuals with HIV positive to total

Table 12.15: Percentage of HIV Positive Males and Females

	% Total HIV Positive to Total Tested (Male + Female)		
	2017-18	2016-17	2015-16
Jharkhand	0.9	1.7	1.2
Bokaro	0.8	0.9	1.1
Chatra	0.3	1.4	0.4
Deoghar	0.7	0.1	0.5
Dhanbad	1.4	0.2	0.5
Dumka	0.2	0.2	0.3
Garhwa	2.2	9.6	1.1
Giridih	2.3	1.1	1.1
Godda	2.6	0.7	0.2

	% Total HIV Positive to Total Tested (Male + Female)		
	2017-18	2016-17	2015-16
Gumla	0.1	1.4	0.2
Hazaribagh	1.4	1.2	1.6
Jamtara	0.1	0.2	0.1
Khunti	0.4	0.1	0
Kodarma	1.3	17.6	3.1
Latehar	2.2	0	0.1
Lohardaga	2	0.1	0
Pakur	0.4	0.3	0.7
Palamu	2.6	11.3	19.1
Pashchimi Singhbhum	0.3	4.3	2.3
Purbi Singhbhum	0.5	0.3	0.3
Ramgarh	0.1	0.1	0.2
Ranchi	0.1	0.5	0.1
Sahibganj	0.2	0.2	0.5
Saraikela	0	0.1	0

Source : Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018. Provisional figures for the period April to December 2017-18

Observed HIV prevalence levels among the people in 2016-17, which is a sign of an increasing number of visiting ANC clinics increased from 0.05 in 2004 to 0.18 HIV cases being reported.

Table 12.16: Observed HIV Prevalence Levels among ANC clinic attendees

	No. of ANC Sites in 2014-15	2004	2005	2006	2007	2008-09	2010-11	2012-13	2014-15	2016-17
Jharkhand	25	0.05	0.14	0.13	0.13	0.38	0.45	0.19	0.18	0.18
India	829	0.95	0.9	0.6	0.49	0.49	0.4	0.35	0.29	0.28

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; National AIDS Control Organization

Almost 15,000 general clients were tested for HIV out of which nearly 1200 were detected seropositive, which is almost 0.83 per cent seropositive for HIV among the general clients.

Table 12.17: General Clients counselled and tested for HIV, and Sero-positivity detected during the FY 2017-18 (till December 2017)

	Number of General Clients Tested	Number of General Clients Detected Sero-Positive for HIV	% of Sero-positive for HIV among general clients
Jharkhand	148574	1232	0.83
India	14979518	136776	0.91

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; National AIDS Control Organization

Through the prevention of parent to child transmission programme, nearly 5, 00,000 pregnant women were tested for HIV, out of which only 121 women were

detected seropositive. Total 62 babies were initiated on ARV prophylaxis as prevention against HIV.

Table 12.18: Prevention of Parent to Child Transmission of HIV/AIDS (PPTCT) Programme during FY 2017-18 (till December 2017)

	No. of Pregnant Women Tested for HIV	No. of Pregnant Women Detected Sero-Positive for HIV	No. of HIV Positive Pregnant Women & Mothers Initiated on Lifelong ART	No. of Babies Initiated on ARV Prophylaxis
Jharkhand	491267	121	113	62
India	14960341	11051	10020	7714

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; National AIDS Control Organization

Much disparity can be observed regarding the awareness about HIV or AIDS in the state. A vast majority of adult men (82%) is aware of HIV or AIDS. However, only 61 per cent of women have ever heard about HIV or AIDS. Also, men are more aware of how HIV is transmitted and about its prevention. Awareness about HIV or

AIDS is more prevalent among people who live in the urban areas as compared to the people in the rural areas. Similarly, the people who are exposed to media and are educated people have higher level of awareness than those who are not educated or have low media exposure.

Box 12.1: Government intervention for controlling communicable diseases

Concerted efforts have been made by the government for controlling the communicable diseases in the state, for their early diagnosis and for their successful treatment. The government has initiated efforts to provide the diagnosis, and treatment of TB, vector-borne diseases, leprosy and HIV / AIDS in all public health facility centres.

- 1) The main areas focus for controlling vector-borne diseases are:
 - a) Malaria (15 districts)- Ranchi, Gumla, Simdega, East Singhbhum, West Singhbhum, Saraikela, Sahibganj, Godda, Dumka, Latehar, Pakaur, Lohardaga, Jamtara, Garhwa and Dhanbad.
 - b) Kala-azar (3 districts): Sahebganj, Dumka and Pakur
- 2) Modern methods like entomological data are going to be used to control vector-borne diseases by making the planning process stronger
- 3) Increase the use of new approaches like:
 - a) Shift TB treatment from alternative regimes to daily regimes to reduce defaults and relapses
 - b) Preventing HIV infection by initiating prophylactic treatment
 - c) Using genetic engineering to eradicate malaria and similar vector-borne diseases
 - d) Control and eradication of tropical diseases by introducing advanced vaccines
- 4) ICT is increasingly used to encourage the generation of awareness. Mobile information technology, education, communication (IEC)/BCC (messages, voice calls) are being used to raise the awareness about the factors responsible for spreading communicable diseases (HIV, TB, leprosy, etc.). The state is going to launch an intensive media campaign for this purpose.

Non-communicable Diseases (NCDs)

Besides genetic factors, which are beyond human controls, changing lifestyles, habits and environment are responsible for the occurrence of non-communicable diseases. The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) was launched in 2010 with the aim to prevent and control these diseases through an awareness-generation, behaviour and lifestyle changes and early diagnosis of persons with high levels of risk factors (NHP, 2018). The state is seriously focusing

on these issues, but the relevant approaches and programmes are quite nascent and need to be intensified further.

During FY 2017 (January-December, 2017), out of 3,86,321 persons who attended NCD clinics in the State and out of those who were screened in the NCD clinics, nearly 8 per cent were diagnosed with diabetes, almost 7 per cent diagnosed with hypertension, nearly 0.5 per cent diagnosed with CVDs, roughly 0.3 per cent had stroke, and almost 0.04 per cent had some common types of cancers.

Table 12.19: Non-Communicable Diseases from January-December, 2017

	No. of Persons Attended NCD Clinics	Out of those Screened in NCD Clinics, Persons Diagnosed with				
		Diabetes	Hypertension	CVDs	Stroke	Common Cancers (including oral, cervical and breast cancers)
Jharkhand	386321	30283	28646	2259	1071	155
India	35723660	3006443	3654099	134348	47464	39635

Source: National Health Policy, 2018 (13th Issue), CBHI, Ministry of Health and Family Welfare, GOI; National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS), Dte. GHS, Ministry of Health & Family Welfare

The State government plans to increase the percentage of eligible people screened for early detection of diabetes, hypertension and common cancer to 20 per cent in 2021 to 80 per cent by 2030. It also plans to reduce the prevalence rate of diabetes (>140mg/dl) by more than 50 per cent by 2030.

Healthcare Financing: Ayushman Bharat-Pradhanmantri Jan Aarogya Yojana

The Hon'ble Prime Minister, Shri Narendra Modi, launched the health scheme Ayushman Bharat-Pradhanmantri Jan Aarogya Yojana (AB-PMJAY) at Ranchi, Jharkhand on September 23rd, 2018. The

AB-PMJAY is the world's largest fully government financed health protection scheme. Under AB-PMJAY and MSBY (Mukhyamantri Swasthya Bima Yojana)² over 57 lakh vulnerable families (approximately 2.63 crore individual beneficiaries) are eligible for the benefits of up to Rs. 5 lakh per family per year, for secondary and tertiary care hospitalization. AB-PMJAY provides cashless and paperless access to services for the beneficiary at the point of service.

AB-PMJAY, thus, will reduce the catastrophic health expenditure of the entitled families and will save them from financial hardships in case of medical emergencies.

Table 12.20: Pradhan Mantri Jan Arogya Yojana or Ayushman Bharat

Jharkhand	Financial Progress (in ₹ crore)		Physical Progress	
	Allocation	Expenditure	Target	Achievement
2018-19 till Oct.	202.12	187.12	57,10,933 Families	57,10,933 Families entitled from 23-09-18 to avail benefit under the scheme.

² The state govt. has decided to merge Mukhyamantri Swasthya Bima Yojana (MSBY) with Pradhan Mantri Jan Arogya Abhiyan. A new Hybrid Model the Pradhan Mantri Swasthya Suraksha Mission (PMRSSM) has been created in the state.

The Health Infrastructure

At present Jharkhand has 3 medical colleges and hospital- RIMS, Ranchi; MGMMCH, Jamshedpur and PMCH, Dhanbad. There are 23 district hospitals (DH), 13 sub-divisional hospitals (SDH), 188 community health centres (CHC), 330 primary health centres (PHC), 3958 health sub-centres (HSC). There are 55

Urban PHC and 5 Urban CHC. Besides these health centres 99 Mobile Medical Units (MMU) are also providing medical facilities to the uncovered people and those living in hinterland. In comparison to March 2017, the number of HSC and PHCs has increased by 2.9 per cent and 11.1 per cent, respectively by October 2018.

Table 12.21: Existing Health Infrastructure

	As on 31st March 2017**	Up to October 2018**
Health Sub-centre (HSC)	3848	3958
PHCs	297	330
CHCs	188	188
Sub-Divisional Hospital (SDH)	13	13
District Hospital (DH)	23	23
Mobile Medical Unit (MMU)	99	

Source: *Health Management Information System (HMIS) (Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on November 10, 2018) & ** Source: Department of Health, Medical Education and Family Welfare, GoJ.

In Jharkhand, a significant gap exists in the availability of health facilities at different levels. The total required sub-centres in the rural areas is 6060 out of which 3958 are in position, resulting into a shortfall of 34.7 per cent. A total number of required PHCs is 966 out of which 330 is in position, therefore, having a 65.8 per cent

shortfall. Out of a total 241 CHCs required 188 is in position, resulting in a shortfall of 22 per cent. The state is making a consistent effort to narrow down the gap in the required number of health facilities in the rural areas and thus improve the availability by adding new PHCs and CHCs every year.

Table 12.22: Shortfall in Health Infrastructure in Jharkhand

Total Population in Rural Areas	Tribal Population in Rural Areas	Sub Centres			PHCs			CHCs		
		R	P	% S	R	P	% S	R	P	% S
25055073	7868150	6060	3958	34.7	966	330	65.8	241	188	22

R: Required; P: In Position; S: Shortfall

Jharkhand has progressed significantly in strengthening its bed-strength in public healthcare centres from a bed to population ratio of 1:20073 in 2005 to 1:3388 in 2016. Thus in these 11 years the number people covered by one hospital bed has decreased by about 83 per cent. Although the ratio is still below the national average of 1:1678 in public facilities, but the progression is remarkable. This progress has been possible due to capital support from schemes like Pradhan Mantri Swasthya Suraksha Yojna (PMSSY) launched in 2003

and National Rural Health Mission (NRHM) in 2005.

In order to further increase the bed to population ratio in the state a work of developing Sadar Hospital, Ranchi into a 500 bedded hospital was undertaken in the year 2007-08. Out of it 200 bedded Maternal and Child Health has been started in August 2017. The remaining work of this 500 bedded hospital will be completed by March 2019.

The government has targeted the following to be achieved by 2030:

Table 12.23: Targets for Healthcare Infrastructure

Type of Area	HSC**			PHC / UPHC**			CHC / UCHC**		
	2021	2025	2030	2021	20225	2030	2021	2025	2030
Tribal	*	2622	3200	*	393	480	*	98	120
Rural (non-tribal)	*	3438	4194	*	573	699	*	143	175
Rural (total)	*	6060	7394	*	966	1179	*	241	295
Urban				59	159	194	6	32	39

* Upgradation of existing facilities as per IPHS norms; HSC: Health Sub-Centre; UPHC: Urban Primary Health Centre; UCHC: Urban Community Health Centre

** RHS 2016, State PIP 2016-17

National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease & Stroke

Government of Jharkhand under Central Sponsored Scheme for National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease & Stroke has given the sanction of establishment of State Cancer Institute at RIMS, Ranchi in FY 2017-18.

State Cancer Institute will be the apex institution in the State for Cancer related activities. It is expected to mentor and coordinate the activities of other institute in the state dealing with the tertiary Care of Cancer. State Cancer

Institute will provide outreach services, diagnosis and referral treatment develop protocol, undertake research and enhance the capacity of Personnel in the State in this field. Under this scheme rupees 38.25 crore has been sanctioned by Govt. of Jharkhand RIMS is taking steps to implement the scheme as per Govt. of India.

Super Specialty Hospitals:

In order to strengthen the health facilities in the state and provide advanced diagnosis and treatment to its citizens, the government of Jharkhand has planned to set up super speciality hospitals in the state

Box 12.2 : Super Specialty Hospital for respiratory disease at Itki

At present Jharkhand does not have a Super-Specialty Hospital for respiratory diseases. The government has proposed to set-up a 200-bed super-specialty hospital for respiratory diseases at Itki. The facility will have provisions to manage all complex problems related to upper and lower respiratory tract diseases and will offer treatment through a multi disciplinary approach. The present proposal is to start at Itki in Phase I and Phase II extend it to 4 zones for a 100-bed hospital. For the 200 bed hospital the breakup of the number of beds is mentioned below:

1. 100 beds for respiratory ailments other than TB
2. 50 beds for the drug-resistant TB patients.
3. 50 beds for the complicated cases other than the drug-resistant TB patients.

Break up for the 100-bed hospital to come up in the 4 zones are:

1. 70 beds for respiratory ailments other than TB
2. 20 beds for the drug-resistant TB patients
3. Ten beds for the complicated cases other than the drug-resistant TB patients.

The proposal is also to set up a Medical Research Centre of Yoga at the TB sanatorium, Itki for the purpose of medical research and development

Source: Department of Health, Medical Education and Family Welfare, GOJ

Human Resources for Health Services

A significant challenge in delivering healthcare in Jharkhand is the dearth of skilled health personnel. However, over the years, the state has recorded a gradual progression towards increasing the number of its doctors with respect to the population. The doctor population ratio has increased from 1:22,936 in 2004 to 1:20,378 in 2016 (National Health Profile, NHP report) – a fall of about 11.2 per cent in these 12 years. A doctor in Jharkhand, thus, is serving a smaller number of people but it is still much higher than the national level where on there is one doctor per 11,897 people. According to NHP 2018 report, as on 31st March 2017, there were 331 doctors in PHCs, 75 specialists in CHCs, 33 male assistants and 16 female assistants, 1654 male health workers and 7933 female health workers or ANM. Two-thirty eight doctors having recognized medical, qualifications (Under I.M.C Act) registered

with state medical councils and 351 dental surgeons were registered under the state dental council in 2016. As on 1st January 2016, there were 1793 government allopathic doctors, 32 government dental surgeons and a total of 462 practitioners were registered under AYUSH in Jharkhand.

Medical education

At present 350 MBBS doctors graduate every year. The government has a target of achieving a graduation rate of above 1000 by 2030. A total number of nurses graduating every year is 390, and there is a plan to increase this number to more than 8100 by 2030. Currently, there are 3 medical colleges, 1 dental college, 1 Ayurveda College, 1 homeopathy, 1 Unani college, 3 GNM schools and 3 ANM schools. The government plans to increase these numbers to more than 12, 6, 8, 8, 4, 24, and more than 25 respectively.

Table 12.24: Targets for medical education

Indicator	Current scenario*	Target for 2030
Number of doctors (MBBS) graduating every year	350	>1000
Number of nurses (ANM & GNM) graduating every year	390	>8100
Medical colleges	3	>12
Dental colleges	1	6
Ayurveda colleges	1	8
Homeopathy colleges	1	8
Unani colleges	1	4
GNM schools	3	24
ANM schools	9	>25

*State MIS 2016

For promoting the medical education and increasing the number of doctors and other health professionals in the state, the government of Jharkhand has planned to establish four new medical colleges which will be

attached to the district hospitals. In two of them the course for MBBS is planned to be started in the coming financial year.

Box 12.3 : Establishment of Medical Colleges

Medical College	Status
<ul style="list-style-type: none"> • Hazaribagh • Dumka, • Palamu 	Phase I- Under centrally- sponsored scheme for the establishment of new medical colleges attached with the District hospital/ Referral Hospital, three new medical colleges are being established. The government of Jharkhand intends to start a course for 100 MBBS seats in these colleges by 2019-20.
<ul style="list-style-type: none"> • Chaibasa (East Singhbhum) • Karma, (Koderma) 	<p>Phase II- Under centrally sponsored scheme for the establishment of new medical colleges attached with the District hospital/ Referral Hospital at Chaibhasa (East Singhbhum) and Karma (Koderma) MOHFW, GoI Technical Evaluation committee has recommended the sanction of DPR for the establishment of medical college at Chaibasa and Karma (Koderma). Accordingly the scheme for the establishment of Medical College in Chaibasa and Karma has been undertaken.</p> <p>The new medical college at Karma, Koderma is being established at the land of Labour Welfare Hospital, Karma (Koderma). The transfer of land and the building of Labour Welfare hospital by the government of Jharkhand is under final stages in the Ministry of Labour and Employment GOI.</p>

Source: Source: Department of Health, Medical Education and Family Welfare and Medical Education, GoJ

Besides these medical four colleges, the government of Jharkhand has also submitted a proposal of setting up of a new medical college and hospital of 500 beds in Bokaro to the Fifteenth Finance Commission. This proposed medical college and hospital will help in further expanding the medical education, health facility and in increasing the number of health professionals in the state.

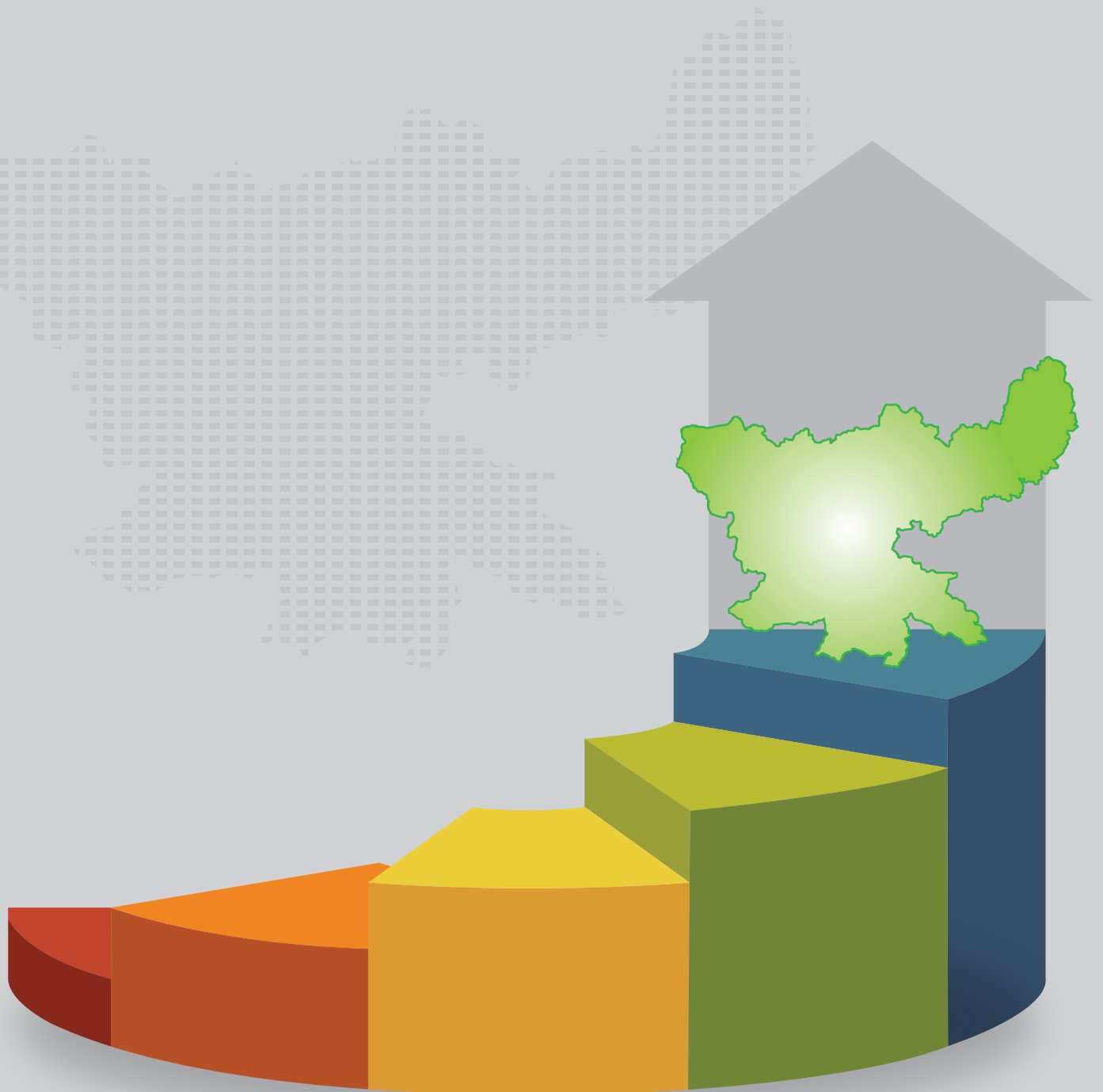
Conclusion

Committed to improve the health of the people of the state, the government of Jharkhand has initiated

several steps to strengthen the health infrastructure, expand medical education and increase the number of medical and other health professionals in the state. As a result of the concerted efforts of the government in promoting health infrastructure and health facilities the malnutrition, morbidity and mortality rates have decreased in the state.

XIII

DRINKING WATER AND SANITATION



Jharkhand is the first in the ranking of the states of 'Swachh Sarvekshan- 2018' for the efforts undertaken by it in Swachh Bharat Abhiyan. The rural area of Jharkhand are now 100% ODF and the 11 major cities are also ODF cities, certified from the Quality Council of India (QCI). In the financial year 2014-15, the number of households having toilet facilities was around 68 thousand only which has now increased to more than 33 lakhs. More than 98% of the rural habitations now have access to drinking water in the state. The coverage of habitation through rural pipe-water supply has also increased from 12.9% in 2017-18 to 14.46% in 2018-19. Under Swachh Bharat Mission (Urban) Jharkhand has accomplished the construction of 213378 individual toilets and 7325 community and public toilets. 41 cities are now ODF and 892 wards are covered by 100% door to door waste collection. Jharkhand also manages to produce more than 39 hundred MT of compost from the waste.

As is well known that drinking water and sanitation play a crucial role in promoting healthy and disease free growth of people so, the development in the expansion of the coverage of drinking water and sanitation augurs

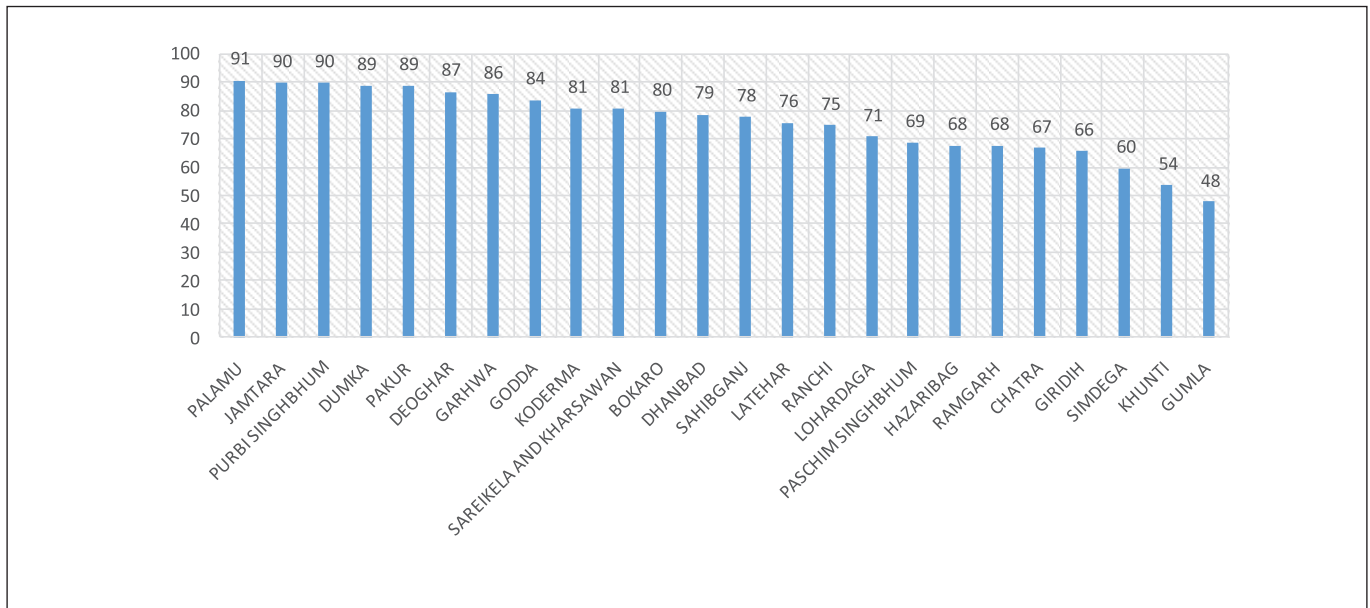
well about the human development of the state.

This chapter summarizes the recent efforts of the state in expanding the coverage of drinking water and sanitation facilities in the state. The chapter is grouped into two sections; first, the progress made in the field of making available safe and good quality drinking water to the people and secondly, the efforts made to improve the sanitation environment in the state.

Drinking Water in Jharkhand

Safe drinking water and its continuous supply is a big challenge in Jharkhand due to its geo-climatic position. Here, there is a lack of perennial rivers and very poor stock of under-ground water. As per the last completed National Family Health Survey Report- 2015-16, the proportion of households having access to safe drinking water facility is around 78% and as compared to 2005-06, when it was only 57%, the increase is quite significant. However, the inter-districts variation is very wide. In Palamau this ratio is more than 90% whereas, in Gumla it is less than 50%, figure-13.1. Most of the districts (i.e. 13 districts) have better coverage than the state average of around 78 per cent.

Figure-13.1: Proportion of households having access to improved drinking water facility (2015-16) (%)



Source: Compiled using National Family Health Survey, 2015-16

Rural Drinking water

As per the Department of Drinking Water and Sanitation, government of Jharkhand, only about 30% of the rural habitations have partial access to drinking water. Table-13.1 shows that only 12.9% of the rural habitations

and only 4.5% of the rural households were covered by piped water supply in the financial year 2017-18. This has increased to 14.46% and 5.74% respectively in the financial year 2018-19 which incorporates figures up to 29th of Dec. only.

Table 13.1: Coverage Status of Piped Water Supply (in %)

Details	2017-18		2018-19	
	Percentage coverage in Jharkhand	Percentage coverage in India	Percentage coverage in Jharkhand	Percentage coverage in India
Habitations covered with Piped Water Supply Scheme (as on 1st April)	12.9	41.79	14.46	41.91
Household Connections (as on 29th Dec)	4.5	17.02	5.74	17.93

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Full and Partial coverage of Population by Rural Pipe Drinking Water Supply Scheme

Following the NRDWP guidelines (2013), the drinking water supply norm was raised from 40 LPCD to 55 LPCD. In accordance with the norm of 55 LPCD to meet the water requirements of *the population*, habitations are categorized into three kinds. Habitations receiving 55 LPCD or more water are considered fully covered, less than 55 LPCD are termed as partially covered and habitations with at least one source of drinking water chemically affected is considered as quality affected. Thus, the National Rural Drinking Water Programme (NRDWP) has fixed the target of 55 Litres Per Capita Per Day (LPCD) as the basic water-need of people in *the rural areas* across the country. Habitations, where

Drinking Water Supply systems provide at least 55 LPCD or more, are considered as fully covered habitations. As per table-13.2, during the financial year 2014-15, Rural Piped Water Service Scheme (RPWSS) coverage of Jharkhand was at 18.54 per cent. Of the total, 17.75 per cent were fully covered habitations; while 0.79 were partially covered habitations and quality affected habitations. The coverage by RPWSS has increased to 26.40 per cent in the current financial year (2018-19), indicating *the concerted efforts* made by the government. The ministry has fixed the target of achieving 50 per cent piped water supply coverage in *the rural areas* by the end of 2019-20. Therefore, the improvement in the coverage status requires an acceleration to achieve the goal above.

Table-13.2: Population covered by Rural Pipe Drinking Water Supply Scheme in Jharkhand (55 LPCD)

Financial Year	Population (Lakhs)			Percentage of Population		
	Total	FC	PC+QA	Total	FC	PC+QA
As on the 1st of April						
2014	49.57	47.47	2.1	18.54	17.75	0.79
2015	45	42.87	2.13	16.83	16.03	0.80
2016	54.51	46.57	7.94	20.26	17.31	2.95
2017	69.77	62.75	7.02	25.59	23.01	2.57
2018	71.64	69.6	2.04	26.40	25.65	0.75
2018 (up to Dec)	71.61	69.61	2	26.39	25.65	0.74

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

District-wise Full and Partial coverage of Habitations by Rural Pipe Drinking Water Supply Scheme

Of the total pipe -water supply covered rural habitations in Jharkhand, 98.49 per cent habitations are fully covered, i.e., receive 55 LPCD of water to meet the requirements of the people. Also, only 0.4 percent rural habitations are quality affected, implying the presence of chemicals in *the water* that is used for drinking

purposes. Many districts are very close to attaining 100% full coverage while Godda, Khunti, Paschimi Singhbhum and Saraikela have already achieved it. The proportion of partially covered habitations is *the highest* in Garhwa. Pakur and Jamtara districts of Jharkhand have the highest percentage of quality-affected habitations, table-13.3.

Table 13.3: Coverage of Rural Habitations with respect to the Drinking Water Supply across the districts in % (as on 30th Dec. 2018)

S. No.	District	Fully covered	Partially covered	Quality affected
1	BOKARO	99.27	0.73	0.00
2	CHATRA	99.68	0.05	0.27
3	DEOGHAR	99.18	0.82	0.00
4	DHANBAD	98.59	0.00	1.41
5	DUMKA	97.39	0.70	1.91
6	GARHWA	87.14	12.86	0.00
7	GIRIDIH	99.11	0.89	0.00
8	GODDA	100.00	0.00	0.00
9	GUMLA	99.36	0.64	0.00
10	HAZARIBAGH	98.08	0.57	1.35
11	JAMTARA	97.11	0.15	2.73
12	KHUNTI	100.00	0.00	0.00
13	KODERMA	99.52	0.05	0.43
14	LATEHAR	99.82	0.18	0.00
15	LOHARDAGA	99.88	0.12	0.00
16	PAKUR	95.50	2.36	2.14
17	PALAMAU	98.59	1.40	0.01
18	PASCHIM SINGHBHUM	100.00	0.00	0.00
19	PURBI SINGHBHUM	99.79	0.21	0.00
20	RAMGARH	98.64	1.36	0.00
21	RANCHI	97.28	2.69	0.03
22	SAHEBGANJ	97.86	1.17	0.96
23	SAREIKELA AND KHARSAWAN	100.00	0.00	0.00
24	SIMDEGA	99.73	0.27	0.00
	Jharkhand	98.49	1.06	0.45

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Coverage Status for special category habitations

Table 13.4 provides the coverage status of habitation across categories. Coverage in all the habitations is above 98 per cent, except among the minorities which

is 97.54 percent. They also have 1.85 PC and 0.61 QA ratio which is greater than others. The state has already initiated 79 pipeline projects to cover the ST population in the last financial year, i.e. 2017-18.

Table 13.4: Coverage Status for special category habitations (as on 30th Dec. 2018)

Particulars	No. of Habitations	Fully covered (%)	Partially covered (%)	Quality affected (%)
Minority	17758	97.54	1.85	0.61
LWE	83083	98.65	1.23	0.12
SC Dominated	11221	98.59	1.1	0.31
ST Dominated	55208	98.71	0.89	0.4
All Habitations	119832	98.49	1.06	0.45

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Note: A particular habitation may fall in more than one category or may not in any of the above categories.

No. of Schemes and Expenditure

To provide safe drinking water to all, several pipe water supply schemes and many other schemes are either underway or already completed in the state. Table-13.5 shows the consistent efforts of the government. More

than 49 hundred drinking water schemes with a total expenditure of more than Rs. 354 crore were undertaken in 2015-16. This became more than 69 hundred schemes and Rs. 305.07 crore in 2016-17. Till Dec. 2018, three hundred and forty four schemes with a total expenditure of more than Rs. 110 crore have already been undertaken.

Table13.5: No. of Schemes and Total Expenditure on Drinking Water which includes PWS and others (in Rs. lakhs)

Financial Year	Total No. of Schemes	Total Expenditure	Central Expenditure	State Expenditure
2015-16	4961	35406.85	11243.93	24162.92
2016-17	6906	30507.06	9655.89	20851.17
2017-18	2778	27833.65	9120.14	18713.51
2018-19	1347	11063.17	7091.74	3971.43

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Box- 13.1: NABARD approves Rs 373.27 crores for water projects in Jharkhand

In July, 2018, The National Bank for Agriculture and Rural Development (NABARD) has sanctioned financial assistance of Rs 373.27 crores to the government of Jharkhand, under its Rural Infrastructure Development Fund (RIDF) towards the construction of 12 Rural Piped Drinking Water Supply Projects across 09 districts of the state. The major items of capital investment include the construction of Intake wells, Pumping machinery/ electrical works, Raw Water Pipe Lines, Water treatment plant, Clear Water Pipe Lines, Grounded and/ or Elevated Service Reservoir, Distribution Network etc.

NABARD's assistance towards these 12 RPDWS projects would help facilitate an assured supply of safe drinking water to approximately 500 villages across 09 districts in Jharkhand. Most of the villages covered under the mentioned projects, presently do not have any piped drinking water supply. These projects are designed to cater to the projected water demand therein. The targeted minimum supply level in each project is 70 Litres per Capita per Day (LPCD). The design period for each of these projects is 30 years. Besides rural households, the piped drinking water will also be supplied to schools, hospitals, Aanganwadi kendras, panchayats and other government offices under the project area, it added.

Ongoing Schemes of Drinking Water

Jharkhand has been quite successful in providing basic water supply facilities to a majority of households. But in order to achieve the Sustainable Development Goal-6 of *Har Ghar Jal* by 2030, it needs to actively involve community-participation. The water-security crisis in Jharkhand is rooted in three primary causes: insufficient water per person, poor/contaminated water supply, and dwindling water resources. But despite these challenges, rural piped-water supply is consistently increasing in

Jharkhand. The administrative competence of the state government has been prudently matched with the vision of the government in the centre, which has helped in the realization of most of the targets on time. A make shift arrangement in the form of increasing piped-water supply-coverage or water treatment alone cannot fulfil the water- requirements of the state. Instead means of sustainable groundwater extraction needs to be developed to make Jharkhand a water abundant state in future.

The NRDWP has launched various schemes to supply water to the rural population. As on December 2018, 20,017 schemes are operational in the state, table-13.6. These schemes are based on various sources such as surface-based, ground-based and others. Jharkhand is dependent on groundwater as a major source of water, but this source is depleting rapidly. The government is adopting various measures to preserve the level of groundwater and also initiating artificial recharges to maintain the water level.

Table-13.6: Ongoing Schemes (All) as on 30/12/2018

Types of Schemes	Numbers
Single Village Schemes (PWS)	2834
Multi-Village Schemes (PWS)	150
Tubewell/HP/ Well etc.	16604
Recharge Structure	8
Point Treatment System	421
Total	20017

Source: *The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme government of India*

Quality of Drinking in Jharkhand

Safe drinking is a pre-requisite for the eradication of water borne diseases and promote healthy growth. Thus, in ensuring the water quality, contamination-check and its removal are the primary tasks. The Water Quality Programme, a sub-division of NRDWP is also funded and guided by the central government. It aims at the identification, mitigation and management of the drinking water quality- related problems in both the urban and the rural areas.

Contamination and major contaminants

The high concentration of iron, fluoride and arsenic in water has an adverse impact on the water- quality and public health in Jharkhand. In fact, the presence of iron-contamination is well over the all-India average and causes various water-borne diseases and deformities. Out of 955 quality-affected habitants as on Jan. 2019, 323 are affected by the presence of iron, 626 by fluoride and 6 by arsenic. In terms of population, more than 156 thousand among the rural population have to face the problems due to the high concentration of fluoride in the drinking water whereas, more than 87 thousand people face problems due to iron, table-13.7.

**Table-13.7: No. of Quality Affected Habitations and Population As On 04/01/2019
(Contamination-Wise Number of Habitations & Population)**

Contaminant	No. of Habitations	Population
Fluoride	626	156500
Arsenic	6	1800
Iron	323	87676
Salinity	0	0
Nitrate	0	0
Heavy Metal	0	0
Total	955	245976

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Lab Testing and Water Treatment Measures

The water-testing laboratory in Ranchi has been certified by the National Accreditation Board for Testing and Calibration Laboratories (NABL). Water-testing laboratories in all the 24 districts have started operating after getting the NABL accreditation. There are altogether 30 water-testing laboratories in the state and till today, 29 of them have been used for testing in the financial year 2018-19. Jharkhand has one state level water testing laboratory out of a total of 32 state level laboratories in the country, as is shown in table-13.8. Out of more than 1.20 lakh habitations, more than 66% habitations the sources of water are tested for contamination in laboratories, as is shown in table-13.9. As a remedial measures the fluoride/arsenic affected districts have received 4 Mega Rural Pipeline projects which are benefiting a population of 19,845. Also, 7 small rural pipeline projects are under construction which will be benefitting a population of 1.09 lakhs. Measures are also being taken to improve the water quality in Garhwa, Palamau, Pakur and Sahebganj. To spread an awareness about the hazards of contaminated water, the ministry is doing a commendable job by adopting the strategy of Information, Education, and Communication (IEC). The World Bank has also been assisting the project for an integrated piped-water coverage and sanitation services in the low-income states like Bihar, Uttar Pradesh, Assam and Jharkhand.

Table-13.8: Laboratory Information regarding Testing Reported in 2018-2019

S. No.	State	State Level		District Level		Block/ Sub-Division Level	
		Total Labs	Labs where Testing is reported	Total Labs	Labs where Testing is reported	Total Labs	Labs where Testing is reported
1	Jharkhand	1	1	24	24	5	5
2	India	32	15	795	583	1815	983

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Table-13.9: Testing of Sources in Habitations (as on 31-12-2018)

No. of Total Habitations	Habitations where 100% Sources tested in Labs.	Habitations where partial Sources tested in Labs.	Habitations where no Sources Tested in Labs.
120764	15606	64937	95548

Source: The Ministry of Drinking Water and Sanitation, National Rural Drinking Water Programme, government of India

Sanitation in Jharkhand

As per the Swachh Sarvekshan 2018, Jharkhand has been declared the best performing state in the country for its efforts in the Swachh Bharat Abhiyan. Both the programmes i.e. Swachh Bharat Mission (Gramin) and Swachh Bharat Mission (Urban) are functioning extremely well in the state.

Rural Sanitation - Swachh Bharat Mission (Gramin)

The Ministry of Drinking Water and Sanitation is the nodal ministry for the implementation of SBM(G). In rural India, this would mean improving the level of cleanliness through solid and liquid waste-management activities and making villages Open Defecation Free (ODF), clean and sanitized. With 70 per cent of the state’s population residing in the rural areas, this has been a challenging task for the government. Initially, Jharkhand had fared moderately as far as the achievement of ODF status is concerned. However, the state continues to lag behind many other states like Madhya Pradesh, Karnataka, and Rajasthan which have recorded far better toilet- coverage .But now Jharkhand is one among the 100 per cent ODF states in the country. Table-13.10 shows the progress in toilet construction here. In the year 2014-15 only around 67 thousand toilets were constructed but the speed of construction

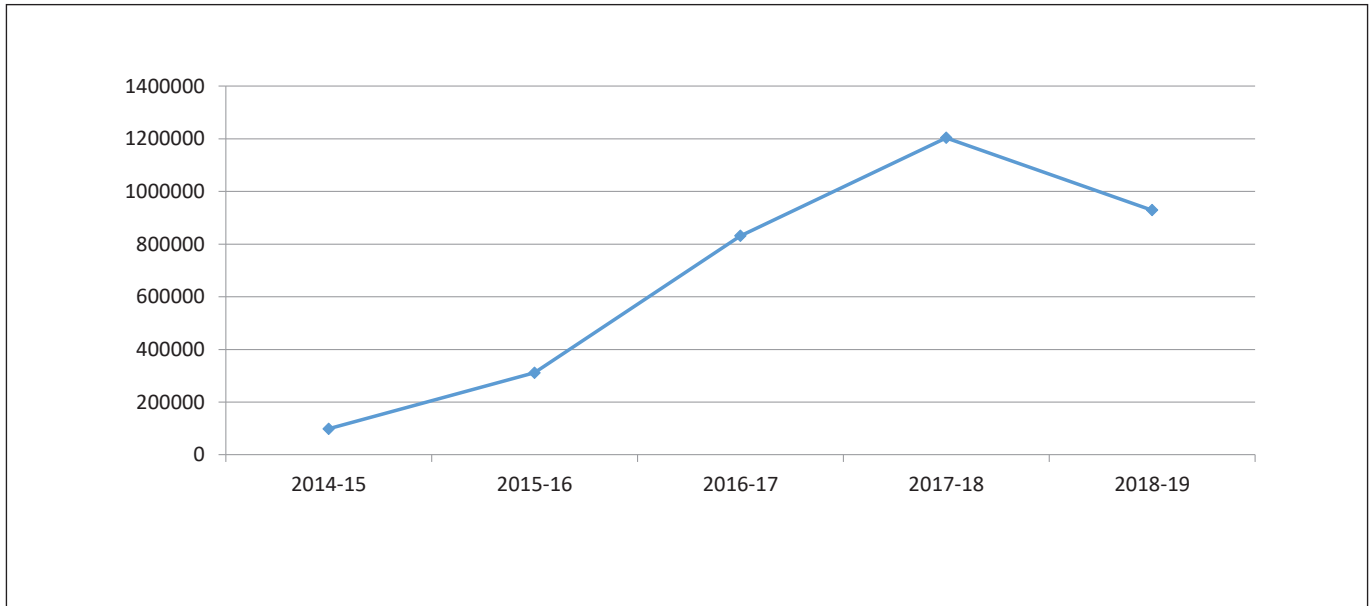
increased significantly in the later years and more than 12 lakh toilets were constructed in the year 2017-18 and till Dec. 2018, more than 9 lakh toilets are already constructed. Thus at present the total number of toilets constructed from the financial year 2014-15 to the financial year 2018-19 (up to Dec. only) stands at more than 33.73 lakhs. The vertical growth in toilet-construction can also be seen in figure-13.2.

Table-13.10: Total No. of Household Toilets Constructed (during 2014-15 and 2017-18)

Financial Year	No. of toilets constructed
2014-15	98397
2015-16	311314
2016-17	831502
2017-18	1203836
2018-19	928814
Total	3373863

Source: Swachh Bharat Mission (Gramin), The Ministry of Drinking Water and Sanitation, government of India

Figure-13.2: Trend in No. of Toilets constructed during 2014-15 to 2017-18



Source: Swachh Bharat Mission (Gramin), The Ministry of Drinking Water and Sanitation, government of India

ODF Verification Process adopted in Jharkhand

ODF status adopted by the ministry is in line with the SBM(G) directives and has been approved by the state cabinet. The state government has planned to undertake Water, Sanitation and Hygiene (WASH) Validation exercise in the selected Gram Panchayats of Jharkhand which will include toilet-coverage, usage and developing key hygiene practices like hand-washing with soap and safe child-excreta disposal. ODF verification process for validating the ODF declaration status and sustainability of SBM (G) which is based upon the directives of the Ministry of Drinking Water and Sanitation, has been finalized and also approved by the state cabinet. In line with the need to have a regular state validation system for WASH, the Department of Drinking Water and Sanitation has planned to undertake a WASH validation exercise in the selected GPs of Jharkhand. The main goal of the assignment is to validate the ODF status of the Gram Panchayats, including toilet coverage and usage, inclusive of the prevailing practices or behaviour on key hygiene practices like washing hands with soap, safe disposal of child-excreta etc.

Key objectives of the verification are: -

1. To determine the access and usages of individual household latrines (IHHL) in the selected ODF GPs
- Access to individual household latrines (IHHL)

- across different social groups
 - Usage of IHHL across different social groups
 - Safe disposal of child faeces
2. To determine the availability and usages of toilets and hand washing facilities for school and anganwadis in the selected ODF GPs of Jharkhand
 - Availability of separate toilets in schools and anganwadis
 - Usages of the toilets in schools and anganwadis
 - Level of cleanliness of the toilets
 - Availability of hand washing facilities/dedicated sites in schools and anganwadis
 - Availability of soap for hand-washing in schools and anganwadis

Key academic institutions have been engaged in the ODF verification. The state has derived institution-wise specific roles and responsibilities and engagements in the process of ODF- verification. UNICEF, Jharkhand is providing technical assistance to the Department of Drinking Water and Sanitation, SBM (G) in the ODF verification process. The state has also been publishing documents on the findings of state ODF verification which includes the present data and analysis of the key WASH indicators, primarily in graphical and tabular forms in an easy-to- understand manner. The third

party and independent verification will be done by the selection of agencies.

Urban Sanitation: Swachh Bharat Mission (Urban)

Swachh Bharat Mission (Urban) is overseen by the Ministry of Urban Development and is mandated to provide sanitation and household toilet facilities in all the 4041 statutory towns with a combined population of 377 million. The estimated cost is Rs 62,009 crores over five years with the centre slated to assist with Rs 14,623 crores. The Mission aims to cover 1.04 crore households, provide 2.5 lakh community toilet-seats, 2.6 lakh public toilet-seats and set up in all the towns solid waste-management facilities. At the core of this mission lie six components.

1. Individual household toilets;
2. Community toilets;
3. Public toilets;
4. Municipal Solid Waste Management;
5. Information and Educating Communication (IEC) and Public Awareness;
6. Capacity Building

Table 13.11 shows the status of Swachh Bharat Mission (Urban) in Jharkhand and India. Jharkhand has accomplished the task of the construction of 213378 individual toilets and 7325 community and public toilets. 41 cities are now ODF and 892 wards are

covered by 100% door- to- door waste collection. More than 39 hundred MT of compost is also produced from the waste.

Table 13.11: Status of Urban Sanitation (as on 7th January 2018)

Structures	Jharkhand	India
Individual Toilets	213378	5364746
Community & Public Toilets	7325	445571
Number of ODF Cities	41	3379
100% Door to Door Waste Collection (in no. of Wards)	892	67085
Waste to compost current production in metric ton	3979	1506501

Source: Swachh Bharat Mission (Urban), The Ministry of Drinking Water and Sanitation, government of India

The SBM(U) mission seeks to eliminate open defecation; convert insanitary toilets to flush toilets; eradicate manual scavenging, and facilitate solid waste-management .This mission lays special emphasis on bringing about a behavioural change relating to healthy sanitation practices by educating people about the environment and strengthening them to design, execute and operate systems for fostering a suitable environment for the private-sector participation in the capital and operational expenditure.

Box-13.2: Jharkhand is the best performing state in Swachh Survekshan - 2018

Jharkhand topped the list as the best performing state for the work being done under the Swachh Bharat Mission. When the Swachh Sarvekshan was introduced in 2015, Jharkhand had scored poorly and remained at the bottom end of the ranking list. However, last year, Jharkhand stood at the third spot.

Apart from the state-topping the top chart, Ranchi bagged the top rank for being the best capital city for ‘citizen’s feedback’. Similarly, Giridih too bagged the top rank for the same across India in the category of small towns which have a population of 1-3 lakhs.

In East Zone, Bundu (for towns with less than one lakh population) bagged the award for the cleanest town. Chaibasa bagged the top prize for Solid Waste-Management (SWM) in the same zone. Further, Pakur got the first prize for the ‘innovation and best practice’ in the east zone.

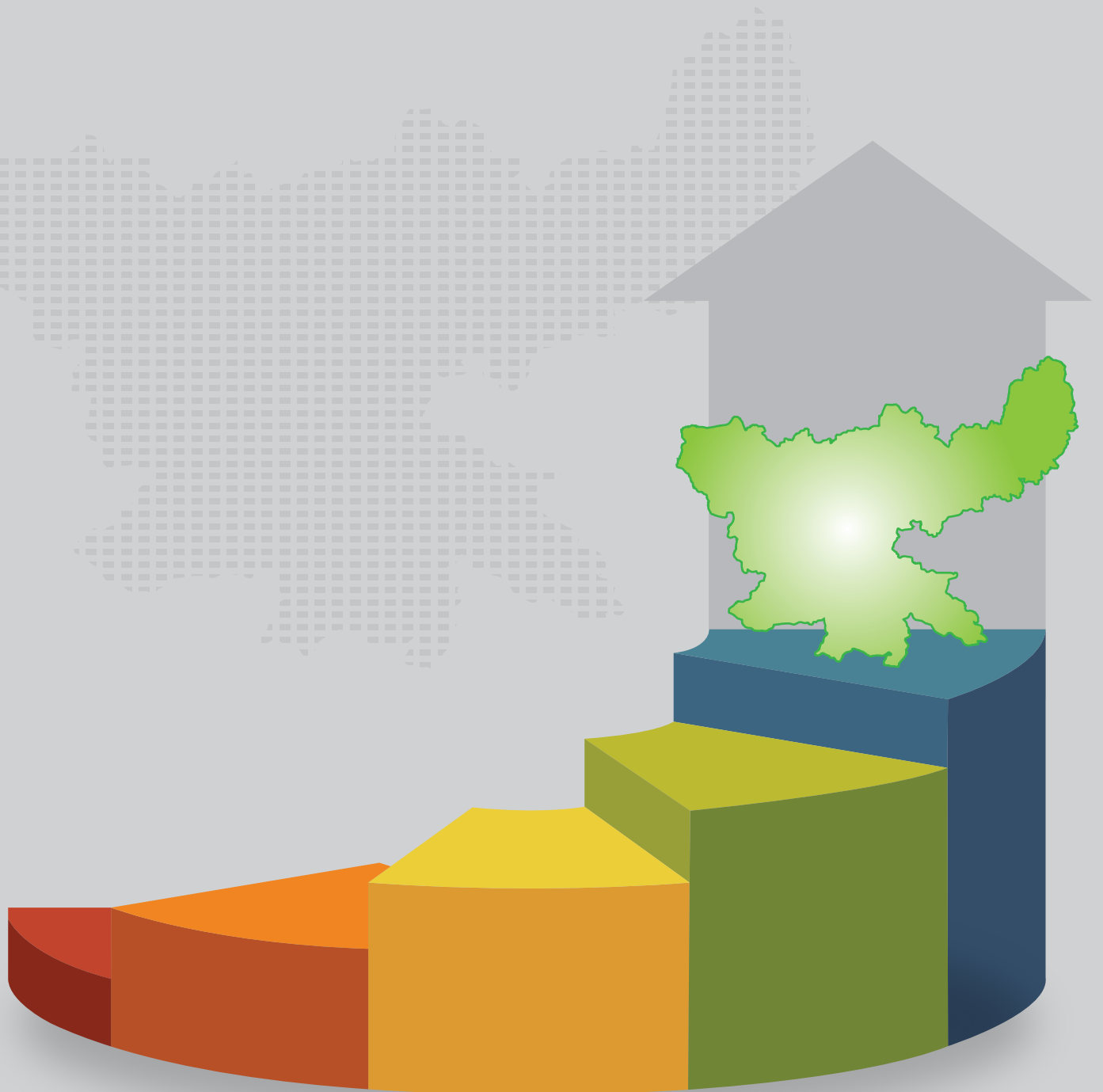
Conclusion

Thus, Jharkhand has made commendable progress in providing safe drinking water and sanitation facilities. The coverage of piped drinking water facility has witnessed a considerable improvement. Likewise, the coverage of rural sanitation has been quite impressive

with the state joining the list of 100 per cent ODF states. However, in terms of access to safe drinking water in the rural areas the progress has been rather slow.

XIV

**WOMEN, CHILD
DEVELOPMENT
& SOCIAL SECURITY**



The impact of the several ongoing schemes of the Department of Women and Child Development and Social Security is evident in the economic indicators such as women with 10 or more years of schooling and overall women's literacy which have witnessed a growth of 90 percent and 59 percent respectively in the periods 2005-06 and 2015-16. Similarly, the number of women who are independently operating their bank accounts has grown phenomenally from 14.1 percent in 2005-06 to 45 percent in 2015-16, a decadal growth of about 213.2 percent. This is the consequence of gender-friendly environment created by the policies and schemes. The Anganwadi workers and helpers also deserve a special mention for the tireless efforts they have put in towards the health and nutrition of lactating mothers and children and also adolescent girls.

Women play an indispensable role in the transformational economic and social upliftment of the society. They comprise around half of the population in our country as also in most countries across the globe. Hence for the meaningful and holistic development of society, women need to be allowed space to develop and grow. The government of Jharkhand through its department for Women and Child Development and Social Welfare has for the past decade consistently striven to focus on women's development and empowerment through a host of schemes and policies dedicated to women and children and has begun gender budgeting.

Table 14.2: Schemes sponsored jointly by the Centre and the State in Jharkhand

Name of the Scheme	Centre-State share
Child Welfare	
ICDS	60:40
Medicine kits	75:25
Preschool kits	60:40
Information, education and communication	60:40
World bank assisted ICDS project (ISSNIP)	88:12
Training program (STRAP)	60:40
ICDS strengthening and Restructuring	60:40
Construction/Maintenance/Up gradation of AWCs under ICDS	65:35
ICPS	60:40
Indira Gandhi Matritva Sahyog Yojna	60:40
Swadhar Grih scheme	60:40
State Resource centre for Women	60:40
Uniform to AWW/AWH	60:40

In the recent past the department has also focused its development-lens on the weaker and marginalized sections of the society. So the more recent budgets have earmarked a substantial allocation for the disabled and the differently abled, the widows and the tribal groups, all of which will be detailed in the sections to follow.

The tables given below enumerate the various schemes implemented by the department along with the funding pattern. The schemes are funded either fully by the centre or by the state or shared by both. There are a total of 45 ongoing schemes targeting education, health and nutrition, skills and vocational training of women, child-rights and protection of children against abuse and trafficking as well pension-schemes for the disabled and the elderly and other such schemes meant for the wholesome development of the various categories of beneficiaries.

Table 14.1: Centrally sponsored schemes in Jharkhand

Name of the scheme	Centre share
Women Helpline scheme	100
Beti Bachao Beti Padhao	100
One stop centre scheme	100
Rajiv Gandhi National Crèche scheme	100

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

Name of the Scheme	Centre-State share
Adolescent Welfare	
Kishori Shakti Yojna	60:40
Rajiv Gandhi scheme for the empowerment of women (RGSEAG)-SABLA (non nutrition program)	60:40
Rajiv Gandhi scheme for the empowerment of women (RGSEAG)-SABLA (supplementary nutrition programme)	50:50
SNP for pregnant and lactating women	50:50
Village convergence and Facilitation service	60:40
Ujjwala	60:30:10
Pension Schemes under NSAP	1:2, 5:2, 50:50

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

Table 14.3: State sponsored schemes in Jharkhand

Name of the scheme	State Share
Child Welfare	
State Nutrition mission	100
Mukhyamantri Ladli Laxmi Yojana	100
Strengthening of AWCs	100
Women's Welfare	
Mukhyamantri Kanyadan Yojna	100
Eradication of the practice of witch hunting	100
Additional honorarium to Anganwadi workers/helpers	100
Suraksha Bima Yojana for AWW/AWH	100
Welfare of disabled	
Welfare of disabled	100
Scholarship to handicapped	100
Swami Vivekananda Nisshakta Svavlamban Protsahan Yojna	100
Construction and Renovation schemes	100
Construction of schools/rehabilitation centres/hostels/homes etc.	100
Renovation & supply of material to schools/rehabilitation centres/hostels/homes/etc.	100
Institutional schemes	
State Women Commission	100
Establishment of the office of the Disability Commissioner	100
State Social Welfare Advisory board	100
Establishment of the office of Jharkhand State Child Rights Protection Commission	100
Miscellaneous Schemes	
Operation of schools/rehabilitation centres/hostels/homes etc.	100
Establishment of Real Time Monitoring Cell	100
Different Training Programmes for the Departmental Staff and Officers	100
Exhibitions, Seminars, Conferences, Awards & Enactment of different Acts	100
Externally Aided projects	
World Bank assisted Tejaswini (EAP)	30:70

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

Schemes implemented for welfare of Women

The centre and the state have together affected several programmes to ensure that the steady rate of the growth of women’s development and empowerment continues uninterrupted in the state.

Women Helpline schemes

A centrally sponsored scheme, the women’s helpline (WHL) provides 24x7 telephonic helpline facilities to the violence-affected women through a universal toll free number. The services include crisis and non-crisis facilitation and consultation through appropriate agencies viz-police, hospital ambulance service, DCSA, Protection officer etc. This scheme has been integrated with the One Stop Centre (OSC) scheme under which one OSC shall be established in every state/UT to provide integrated support and assistance to women affected by violence, both in the private and public spaces under one roof. Women affected by violence and in need of redressal services will be referred to OSC through WHL. The Xavier Institute of Social Sciences, Ranchi, is the nodal agency for the WHL scheme in Jharkhand.

Table 14.4: One Stop Centre in Jharkhand

Districts	Functioning Since	Cases registered
Ranchi	2015-16	70
Dhanbad	2016-17	87
East Singhbhum	2016-17	187

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

Besides, the Ministry of WCD, government of India has sanctioned 9 more OSCs to be operationalized in the districts of Khunti, Sahebganj, Godda, Giridih, Jamtara, Koderma, Palamau, Bokaro and Dumka.

National Crèche scheme

Under the scheme the department intends to run various crèches in the entire state at the district and block levels.

Pradhan Mantri Matru Vandana Yojna:

This is a centrally sponsored scheme which targets the pregnant and lactating mothers who get ₹6000 for the first live-birth through a conditional cash transfer. The scheme is running successfully in all the districts of Jharkhand and has brought relief to a lot of expectant

mothers in meeting their expenses. This scheme is being implemented in the two districts Simdega and East Singhbhum. The scheme has benefited 147073 expectant and lactating mothers in the financial year 2018-19 (till December 2018) and they received cash directly as maternity benefit.

Swadhar Greh Scheme

A Scheme for Women in Difficult Circumstances (SWADHAR), is also a centrally aided programme. The objective of this programme is to provide women with legal aid and guidance to enable them to take steps for their readjustment in families and society. At present, this scheme has been made operational in two districts of the state, namely Palamau and Bokaro.

Merged with the short stay home scheme, the Swadhar Greh provides shelter, food and clothing besides counselling, legal aid and training to rehabilitate women in distress.

State Resource Centre for Women

Commissioned by the centre, the scheme is funded in Jharkhand by the centre and the state in the ratio of 60:40. The scheme envisions achieving social, economic, political and legal empowerment of women through the formation and activation of a State Resource Centre for Women (SRCW)

Mukhyamantri Kanyadan Yojna

As the name suggests, this is a state funded scheme to help the needy families meet the wedding expenses of their daughters. Under this scheme, women with an annual family-income of less than ₹72,000 receive a financial assistance of ₹30,000 through DBT when they get married. This also indirectly keeps early marriage of girls in check. Besides, the fund will be used to provide incentives for the promotion of dowry-free community marriages. 3179 women benefited from the scheme in the FY 2018-19 and 12221 in the FY 2017-18.

Eradication of the practice of witch hunting

Some of the states worst-hit by the practice of witch hunting include Odisha, Jharkhand, Chattisgarh and Telengana with Jharkhand at the top with the maximum number of these cases. Data from National Crime Records Bureau (NCRB) indicates that of the 134 cases of witch witching deaths in FY 2016, the highest was in Jharkhand (27).

Data from NCRB shows that 183 witch-hunting cases were recorded in the state in the last four years. Union home ministry data indicates that 523 women in the state were lynched between 2001 and 2016, taking the tribal-dominated state to the top of the chart of witch-hunting murders in the country. The Department of Women, Child Development and Social Security runs a number of awareness-generation schemes for the eradication of social evils like the practice of witch hunting.

Additional honorarium to Anganwadi workers/ Anganwadi Helpers

There are 35,881 Anganwadis and 2551 mini Anganwadi centres in the state. Under this scheme, additional honorarium is paid to Anganwadi Workers (AWW) / Helpers (AWH) from the state fund in addition to the honorarium granted by the government of India. The rate of state honorarium is ₹1400 and ₹700 for AWWs and AWHs and Mini AWWs respectively.

Ujjawala scheme

Apart of “Mission for protection and Empowerment of Women”, the Pradhan Mantri **Ujjwala Yojana** aims to safeguard the health of women and children by providing them with clean cooking fuel, LPG, so that they don't have to compromise their health in smoky kitchens or wander in unsafe areas for collecting firewood. The below poverty line (BPL) families are the beneficiaries of the scheme. Earlier it was implemented directly by the central government through NGO's. From FY 2016

– 17, this scheme is being implemented jointly by the centre, state and the implementing agency in the funding pattern of 60:30:10 respectively. At present this scheme is being implemented in the Pakur district of Jharkhand.

Tejaswini Yojna

It is the World Bank's first project in India solely focused on the welfare of adolescent girls and young women (AGWY) in the age group 14-24 years to enable them to complete their secondary education and acquire the market driven skills training for the job market.

In the state of Jharkhand, the department of Women, Child Development and Social Security, Government of Jharkhand is implementing the Tejaswini Project in 17 selected districts (including 2 pilot districts for intensive interventions) 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 years.

There are three components of the programme, i.e. (a) expanding social, educational and economic opportunities for the AGYW (b) intensive service delivery and (c) state capacity building and implementation support.

The table below provides details of the progress in the state under the Tejaswini project in 5 blocks (Dumka Sadar, Jama, Masaliya, Ramgarh Sadar and Mandu) in the Ramgarh and Dumka districts.

Table 14. 5: Progress under Tejaswini project in Dumka and Ramgarh districts

Particulars	Dumka	Ramgarh	Total
No. of Tejaswini Kendras identified	129	75	204
No. of Tejaswini Kendras operationalized	42	28	70
Number of Tejaswini Kendras Personnel in place	386	224	610
No. of TK Personnels Inducted	232	224	456
No. of Tejaswini Club identified	1078	557	1635
No. of Tejaswini Clubs operationalized	353	223	576
Number of YF in place	351	221	572
No. of YF Inducted	353	223	576
No. of AGYW Identified	35231	24455	59686
No. of AGYW Registered	26585	17406	43991
No. of AGYW Inducted	9780	5343	15123
No. of AGYW Enrolled	8911	4731	13642

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

Mahila Shakti Kendra (MSK)

This is a new scheme of GOI to promote community participation through the involvement of student volunteers, NSS/NCC cadre students for the empowerment of rural women. MSK is a sub-scheme under the Umbrella Scheme Pradhan Mantri Mahila Shashaktikaran Yojna for the FY 2017-18 to 2019-20

The scheme aims to provide an interface for rural women to approach the government for availing their entitlements and for empowering them through awareness generation, training and capacity building. Student volunteers are being engaged and trained to help encourage the spirit of voluntary community service and gender equality. These student volunteers will serve as “agents of change and have a lasting impact on their communities and the nation.”

In Jharkhand, Mahila Shakti Kendra Scheme is being implemented in 20 districts i.e. Sahebganj, Pakur, Godda, West Singhbhum, East Singhbhum, Chatra, Palamau, Bokaro, Garhwa, Dumka, Ramgarh, Giridih, Hazaribagh, Latehar, Ranchi, Lohardaga, Simdega, Khunti, Gumla and Dhanbad. In 19 of these districts, 145 blocks have been identified where MSK will be implemented. The formations of District Level Task Force and 8 Block Level Task Force in each district has been completed in the districts of Hazaribagh, Khunti and Simdega. In the remaining districts the formations of District Level Task Force and Block Level Task Force are in progress.

The Block Level Committee (BLC) will select up to eight batches of 25 student- volunteers from the various colleges in the selected block. In Hazaribagh, Khunti and Simdega up to 550 student- volunteers are going to be engaged under this scheme.

Schemes implemented for Child Welfare

Beti Bachao Beti Padhao (BBBP)

This is a centrally funded scheme being implemented in 100 districts of the country. The scheme seeks to address the issue of decline in child sex ratio through a mass campaign in the selected districts targeted at changing the awareness about the seriousness of the issue, focused intervention and multi sectoral action.

The Department of Women, Child Development, and Social Security, Jharkhand, is implementing Beti Bachao Beti Padhao in collaboration with the Ministry

for Women and Child Development. The project mainly aims to empower the girl-child by preventing gender based sex selective elimination, ensuring survival and protection of the girl child and ensuring education and growth of the girl child. **State Resource Centre for Women** under Mahila Shakti Kendra is the State Level Program Management Unit for BBBP Scheme. BBBP is being implemented in the 12 districts of Jharkhand i.e. Ranchi, Dhanbad, Deoghar, Hazaribagh, Giridih, Bokaro, Koderma, Ramgarh, Jamtara, Palamau, East Singhbhum, Saraikela-Kharsawan.

The District Action Plan has been made with the different departments i.e. Health and Family Welfare, Department of Education and Department of Panchayati Raj Institution. Inter-sectoral consultation & meetings have been held in all the 12 districts and District Level Task Force formed under the chairmanship of DC. The budget per district is ₹ Fifty lacs and the first instalment has already been released to these districts. In the Ranchi and Ramgarh districts out-reach activities like rally signature campaign, prabhat-pherry, school competitions, street shows/nukkad natak among others have been conducted and staged.

Activities under Beti Bachao Beti Padhao

- Conduct Orientation programmes of: District Officers/Zila Parishad members/PNDT Cell/Judiciary/District Legal Services Authority (DLSA).
- Conduct Orientation programmes of Block Officers/Block Parishad/Panchayat Members.
- Village Health Sanitation & Nutrition Committee (VHSNC) members & School Management Committee (SMCs) members.
- Conduct sensitization exercise of Religious Leaders, Elected representative, Community Leaders.
- Training of the District Appropriate Authority (DAA), & other functionaries on PCPNDT act.
- Provide legal counselling/ aid/ awareness on PC & PNDT Act and other legislations using District/ Taluka structures under District Legal Services Authority (DLSA).
- Out-reach activities, rallies, signature campaigns, prabhat-phery, school competitions, film Show, nukkad-natak etc.

- Gudda-Guddi Board in the Village Panchayat.

Integrated Child Development Services (ICDS)

The Integrated Child Development Services is a centrally funded scheme launched in 1975 to cater to early childhood development and care. The centre and the states share the financial responsibility in the ratio of 60:40.

It represents one of the world's largest and most unique programmes for early childhood development, adopting a multi-sectoral approach to child development, incorporating health, early education and nutrition interventions. The World Bank has completed six projects in support of the ICDS program since 1980 with an overall investment of over US\$ 700 million in an effort to contribute to improving malnutrition and early childhood development in India.

The programme is hugely successful in the state of Jharkhand and is implemented through Anganwadi Kendras well spread across the state. There are 35,881 Anganwadi centres across the 24 districts of the state each with an Anganwadi worker (AWW) and Anganwadi Helper (AWH). Besides, there are 2551 Mini AWC with a Mini Anganwadi worker.

The World Bank has collaborated with various state governments since the 1980s to strengthen the health and nutrition of women and children through the ICDS programme. The World Bank Assisted ICDS Project-IV is being implemented in the states of Andhra Pradesh, Bihar, Jharkhand, Chhattisgarh, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The overall goal of the project is to contribute towards improving the child development outcomes including the nutrition and early childhood education outcomes in the areas with a higher proportion of underweight children.

The project is to be implemented in the 12 districts of Jharkhand – Kodarma, Dumka, Giridih, West Singhbhum, Dhanbad, Chatra, Garhwa, Godda, Lohardaga, Latehar, Pakur and Palamau.

The cost of the project for the state of Jharkhand is estimated at ₹ 175.23 crore, with ₹ 40.95 crore for 1st phase (3 Years) and 134.28 crore for phase 2 (4 Years). The cost sharing ratio between GOI and GOJ is 88:12. The project is to be completed in a total period of 7 years from the date of effectiveness of the project i.e. 26th Nov. 2012 (2012-13) to 31st Oct 2019 (2019-20).

The ICDS programme has various components

Pre-School Kits (PSE) - Under this component of the ICDS scheme pre-school kits are to be provided at all the Anganwadi Centers for the children less than six years of age. There are 11,05,112 beneficiaries under the PSE programme of the ICDS.

Information, Education & Communication - Under this component of the ICDS scheme awareness is generated through the electronic and print media about the various issues concerning the development of women and children

Medicine Kits - Under this component of the ICDS scheme medicine kits are to be provided at all the Anganwadi Centres for the children, adolescent girls and women.

Supplementary Nutrition programme (Pregnant & Lactating Women & Children) - The scheme of providing supplementary nutrition to the children in the 0-6 year age group as well as to pregnant and lactating mothers is the flagship scheme of the Department of Women, Child Development and Social Security. This scheme is being implemented through a statewide network of 38432 Anganwadi Centres (AWCs) spread over 224 ICDS projects in Jharkhand. The food is distributed 300 days a year, the rate of food being ₹8.00, ₹ 9.50, ₹12.00 for normal children, pregnant, lactating mothers, under-nourished children respectively. The department provides eggs/fruits to the children attending these centres within the present cost norm. As per GOI norms the total expenditure will be shared between state and the central governments in the ratio of 50:50. There are 36,50,662 children in the age group 3-6 years benefiting from the SNP programme of the ICDS.

Mukhyamantri Laxmi Ladli Yojana

For the protection, education and secure future of the girl child belonging to the families whose yearly income is not more than ₹72000 per annum, the state government has started Mukhyamantri Laxmi Ladli Yojana from the FY 2011-12. The prime goal of this scheme is to provide financial assistance to the BPL families on the birth of a girl child. Since its inception, this scheme had been implemented by the planning department. From the FY 2015-16, this scheme is a part of Department of Women, Child Development and Social Security. The number of beneficiaries of the programme up to FY

2017-18 was 2,42,133.

Under this scheme the state government deposits ₹30000 in the beneficiary account in the Post Office over a period of five years since the birth of a girl child. The money can be withdrawn in fixed amounts at fixed intervals to fund the education of the girl child, provided, her education continues uninterrupted. Upon the maturity of the scheme, when the girl turns 21 years of age, she receives ₹1,08,600. Another precondition is that, besides no break in her education, the girl must not get married before the age of 18.

Scheme for Adolescent Girls (SAG) [Erstwhile known as the Empowerment of Adolescent Girls (RGSEAG) – SABLA]

Realizing the multi-dimensional needs of out-of-school pre-adolescent girls (11-14 years) and with an aim to motivate these girls to join the schooling system, the government has approved the implementation of the restructured Scheme for Adolescent Girls (SAG) to focus on out of school adolescent girls in the age group of 11-14 years. The Scheme for Adolescent Girls (SAG) is running in 24 districts and the total number of beneficiaries under SAG is 71,407.

The scheme covers out of school girls in the age-group of 11-14 years. The out-of-school girls in the age-group of 11 to 14 years, are entitled to supplementary nutrition under the scheme. They will also receive life-skill education, nutrition and health education, awareness about socio-legal issues, existing public services etc. The scheme aims at motivating out-of-school girls to go back to formal schooling or skill-training under non-nutrition component of the scheme.

The scheme has two components- Nutrition and Non nutrition. The centre-state funding is 50:50 for the nutrition component and 60:40 for the non-nutrition.

Under the nutrition component, the Scheme for Adolescent Girls (SAG)-SNP aims at empowering Adolescent Girls (11 to 14 years out of school girls) along with an improvement in the nutritional and health status. The government of India provides nutrition to out-of-school AG @ ₹9.50 per beneficiary per day for 300 days.

Under the non-nutrition component, a package of services, keeping the needs of the AGs viz. physical, physiological and health issues in mind, is provided to adolescent girls as detailed below:

- Iron and Folic Acid (IFA) supplements
- Health check-up and Referral services
- Mainstreaming out of school girls to join formal schooling, bridge course/skill training
- Life Skill Education, home management etc.
- Counselling/Guidance on accessing public services.
- Adolescent reproductive and sexual health counselling services

Integrated Child Protection Services (ICPS)

This centrally sponsored scheme is aimed at providing a protective environment to all children in order to enable them to develop as responsible individuals. ICPS brings together multiple existing child- protection schemes under one comprehensive umbrella. The programmes to be implemented are under the following heads:

Table 14.6: Child Protection Schemes

Components	Objectives	Centre-State Funding
State Child protection Society (SCPS)	State and District Child Protection Societies have been set up as the fundamental units at the state and district levels for the implementation of the scheme.	60:40
State adoption Resource Agency (SARA)	The state will coordinate, monitor and develop the work of adoption through SARA	60:40
District child protection Society (DCPS)	District Child Protection Society has been set up in each district as a fundamental unit for the implementation of the scheme.	60:40

Components	Objectives	Centre-State Funding
Maintenance grant for NGO run children home/shelter home/after care home	A large number of children in need of care and protection who enter the juvenile justice system through the Child Welfare Committees (CWCs) are in need of residential care and protection during the term of inquiry and subsequently for their long-term care, treatment, education, training, development and rehabilitation. For this, Shelter Homes, Children’s Homes, Observation Homes and After Care Homes are being operated.	60:30:10
Maintenance grant for government run children home/shelter home/after care home	This is Grant-in-Aid to be provided for Shelter Home, Children Home, and Observation Homes.	60:40
Open shelters in urban and semi urban areas (NGO run)	The Open Shelters, run by both NGOs and the state government, are not meant to provide permanent residential facilities for the children but to complement the existing institutional care facilities.	60:30:10
Grant to NGO to run Special adoption agency	In order to facilitate the placement of orphaned, abandoned and surrendered children for adoption, the Juvenile Justice (Care and Protection of Children) Amendment Act 2006 empowers the state government to recognize one or more of its institutions or voluntary organizations in each district as SAA.	60:30:10
Statutory support services	Under this head CWCs JJBs have been setup as per Care and Protection of Children Amendment Act, 2006	35:65

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

The progress of ICPS in the state of Jharkhand is detailed in the table given below:

Table 14. 7: The progress of ICPS in Jharkhand

Key Action	Responsible/lead Department/Agency	Progress made as on 25 th October 2018
Recruitment under ICPS completed	DWCD , JSCPS, Deputy Commissioners	<ul style="list-style-type: none"> 109/336 posts in DCPU filled. Reminders sent to all districts to complete the recruitment process in DCPUs. Advertisement to fill the vacancies in the Observation Homes has been published. The recruitment process will be complete by April 2019.

Key Action	Responsible/lead Department/Agency	Progress made as on 25 th October 2018
<p>Institutionalize training and regularize capacity development</p> <p>CWC, JJB, SJPU and DCPU structures strengthened in 50% of the districts</p> <p>Master Trainers, mentors, module adaptation, training calendars etc.</p>	<p>DWCD, JSCPS, JHALSA¹, CID</p>	<ul style="list-style-type: none"> • Training institutionalised in partnership with Judicial academy for CWC and JJB • For SJPU members training institutionalised in Police Training Institute. • Duty roster is being prepared and followed by all CWCs in the state. • In all the districts, CWCs have basic office facilities. • All CWCs are functional. 110/120 positions in CWC are filled. • All JJBs are functional. 46/48 positions of JJB members are filled. • All SJPU are functional. The state has 26 SJPU with 416 trained members. • 35 master trainers were trained through TOT by Judicial Academy on POCSO Act, JJ Act and Child Marriage, Child Labor, Child trafficking with 35 persons from various state level training institutions. • All the members of CWCs and JJBs were trained by the department on their roles and responsibilities along with the usage of JJ Formats in partnership with Judicial Academy and UNICEF. • 41 DCPU staffs (DCPOs, POIC and PONIC) from all the districts were trained on their roles and responsibilities.
<p>Alternative family based care rolled out</p>	<p>DWCD, JSCPS</p>	<ul style="list-style-type: none"> • Guidelines related to alternative family based care (Sponsorship and Foster Care) are notified by DWCD in 2018. • JHALSA, DWCD and CSOs have organised state wide awareness campaigns on Alternative family based care in all the districts. • 531 children identified for sponsorship and 50 identified for Foster Care in 2018. • 3 children linked with sponsorship and 21 linked with foster care in 2018.
<p>At least one place of safety to be established</p>	<p>DWCD, JSCPS</p>	<ul style="list-style-type: none"> • Establishing Place of Safety is in process.

¹ JHALSA: Jharkhand State Legal Services Authority, DWCD: Department for Women and Child Development, JSCPS: Jharkhand State Child Protection Society, SCPCR: State Commission for Protection of Child Rights

Key Action	Responsible/lead Department/Agency	Progress made as on 25 th October 2018
Ensure Minimum standards of Care in CCIs and tribal residential schools –	DWCD, JSCPS	<ul style="list-style-type: none"> Registration of CCIs increased from 2 in 2014 to 120 in 2018 126 CCIs inspected by SCPCR, 109 CCIs inspected by District Inspection Committee. 18 CCIs have prepared action plans to ensure minimum standards of care in their institutions, which will be reviewed and then replicated in other CCIs.
Life skills for children in Institutions in all the government run CCIs	DWCD, JSCPS	<ul style="list-style-type: none"> Equipment for screen printing training and computer training has been provided in Observation Home, Ranchi and children are being trained. In one ICPS supported children’s home crafts training and other life skill programmes are being given.
Formation of CPCs in all the districts and making it functional	DWCD, JSCPS, DCPU	<ul style="list-style-type: none"> DCPC: 15 formed and 10 functional BCPC: 204 formed and 31 functional VCPC: 27351 formed and 511 functional
The transfer and posting of the designated and trained Child Welfare Police Officers within the SJPU	CID	<ul style="list-style-type: none"> Rule related to the transfer and posting of SJPU members is incorporated in Jharkhand Juvenile Justice Rules 2017.
Dedicated mobile number for CWPO	CID	<ul style="list-style-type: none"> Dedicated mobile number for CWPO in 2 Districts (Palamau and Hazaribagh). Instructions for the same have been given to all the districts by CID
Quarterly CFPS review and half yearly certification process	CID	<ul style="list-style-type: none"> 3quarterly meetings held to review the progress on CFPS. CFPS Certification Programme has been organized on 22 March, 2018 and on 27th Nov 2018. As on 27.11.2018, 210 out of 502 police stations fulfilling the 21criteria have been certified as Child Friendly Police Stations (CFPS).
Dispose of cases more than 3 years in JJB	JHALSA, HCC on JJ , JJB	<ul style="list-style-type: none"> As on 27.02.2018 a total of 905 cases were pending for more than 3 years at JJBs. Out of these 905 cases, 489 cases have been disposed of as on 25.10.2018.
Termination of petty Offenses more than six months	JHALSA, HCC on JJ , JJB	<ul style="list-style-type: none"> As on 27.02.2018 a total of 381 cases of petty offences were pending for more than 6months at JJBs. Out of these 381 cases, 227 cases have been terminated as on 25.10.2018.

Key Action	Responsible/lead Department/Agency	Progress made as on 25 th October 2018
Restorative Justice model rolled out	JHALSA, DWCD	<ul style="list-style-type: none"> Model roll out is in process in two districts (Bokaro and Ranchi)
Child Protection MIS Fully functional	JHALSA, DWCD, CID	<ul style="list-style-type: none"> CPMIS is functional in 15 districts
Quarterly review meeting of HCC JJ and High Level Committee under JJ Act	DWCD, HCC on JJ	<ul style="list-style-type: none"> Two review meetings by HCC JJ have been convened on 14.03.2018 and 03.11.2018.
Strengthening SCPCR monitoring mechanism	SCPCR, DWCD	<ul style="list-style-type: none"> SCPCR conducted inspections in 126 CCIs. Actions have been initiated based on the recommendations given by the SCPCR. SCPCR participated in the quarterly review meetings conducted by HCC JJ. 6 district-level review meetings on JJ Act and POCSO Act were conducted by SCPCR.
Monitoring of Homes by the Judges of the High Court	High Court	<ul style="list-style-type: none"> Three visits have been made by the Judges of the High Court to the Observation Homes at East Singhbhum and Ranchi to monitor its functioning.
Divisional Workshops/ capacity development programme by JHALSA including training of CWC	JHALSA	<ul style="list-style-type: none"> Two state consultations on Juvenile Justice issues have been organized by JHALSA during the year.
Establishment of Child Friendly Special Court	High Court/Judicial Commissioner Ranchi	<ul style="list-style-type: none"> In process. The site has been identified in Ranchi, and is expected to be completed by March, 2019.

Source: The Department of Women, Child and Social Welfare, Government of Jharkhand

Schemes for the Welfare of the Disabled and Social Security of its citizens

Welfare for disabled persons

According to Census 2011, at all India-level, disabled persons constituted 2.21% of the total population. The share of the disabled in Jharkhand to the total disabled persons in the country is 2.87 as per Census 2011. The share of disabled workers in the state to the total disabled population is 37.68 percent. About 31 percent of the disabled children (5-19 years) are not attending any educational institution in the state.

The department of Women and Child development

and Social Security strives to implement the spirit and intent of the article through a multitude of schemes and programmes, some of which are funded either entirely by the centre or the state or shared jointly.

The department has several ongoing schemes for the welfare of the disabled and the differently abled children of the state. Scholarships, special equipment, organizing workshops, capacity building and such interventions are at the heart of these schemes. Regular surveys are conducted to assess the economic need and social situation of the disabled. Some of these are discussed below.

State Fund for the Disabled

This is a state sponsored centralized fund to be used as and when required for the welfare of differently abled persons.

Scholarship to disabled students

This scheme provides scholarship to disabled students in different amounts depending upon the level of schooling. Students of classes 1 to 8 receive ₹50 per month while those from class 9 upto graduation get ₹250 per month. Postgraduate students are entitled to a monthly scholarship of ₹260. The beneficiary students have to be enrolled in institution, schools and colleges run by the state government, or NGOs. There were 1993 children receiving financial aid as scholarship under this scheme till December, 2017.

Special equipment for the Divyang students

Under this scheme special equipment are given to the disabled students depending upon their disability. 256 students have benefited from this scheme.

District Disability Rehabilitation Centre (DDRC)

The government intends to establish a Districts Disability Rehabilitation Centre to provide comprehensive services to persons with disabilities at the grass root level and for facilitating the creation of the infrastructure and capacity building at the district level for awareness generation, rehabilitation and the training of rehabilitation professionals. The objectives of the DDRC are as stated below briefly:

- Early Intervention;
- Assessment of the need of assistive devices, provision/fitting of assistive devices, follow up/repair of assistive devices
- Therapeutic services e.g. physiotherapy, occupational therapy, speech therapy etc.;
- Facilitation of disability certificate, bus passes and other concession/facilities for persons with disabilities;
- Referral and arrangement of surgical correction through government and charitable institutes;
- Arrangement of loans for self-employment, through banks and other financial institutions;

- Counseling of persons with disabilities, their parents and family members;
- Promotion of barrier-free environment;

Swami Vivekananda Nisshakta Svavalamban Protsahan Yojana (SVNSPY)

In this scheme, an amount of ₹600 per month is granted to the disabled persons of the state, as per a survey conducted through Anganwadi Workers. Every physically challenged person above the age of 5 years is given a monthly stipend of 200 rupees under this programme. The department also intends to cover the beneficiaries left out now by taking/launching special drives for this purpose. There are 170564 beneficiaries covered under SVNSPY.

Establishment of the office of the Disability Commissioner

The government has set up an independent office of the state disability commissioner in accordance with the provision of Person 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 disability in the state. The department provides the establishment cost of the office

Schemes implemented for Social Security

Article 41 of the Constitution of India states that the state shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disability. The National Social Assistance program (NSAP) which came into effect from 15th August 1995, was a significant step aimed at ensuring that the article 41 was implemented. The programme introduced a national policy of social assistance for the poor and aims at ensuring minimum national standard of social assistance in addition to the benefits that the states are already providing. The NSAP comprises many social and welfare schemes which are discussed in the ensuing sections.

The table below enumerates the schemes, their funding pattern and the number of beneficiaries covered by each of the social security schemes functional in Jharkhand.

Table 14.8: Funding pattern of Schemes of Social Security

Name of the Scheme	Centre share (%)	State share (%)	No. of beneficiaries covered
National Family Benefit Scheme	100		885
Indira Gandhi National Old Age Pension Scheme (60-79 years) & (80+ years)			999132
Indira Gandhi National Widow Pension Scheme (40-79 years)	50	50	267770
Indira Gandhi National Disability Pension Scheme(68-79 years)	50	50	23793
State Social Security pension Scheme		100	324441
Adim Jan Jati (primitive tribal) Pension Scheme		100	45052
Rajya Vidhwa Samman Pension Yojana		100	158166
HIV/AIDS Pension Scheme		100	2630

Source: The Department of Women and Child Development and Social Welfare, Government of Jharkhand.

National Family Benefit scheme

Part of the NSAP, the National Family Benefit scheme extends financial support to BPL families in the event of the death of an earning family member in the age group 18-60 years. The family receives a one-time payment of ₹20,000.

Indira Gandhi National Old Age Pension scheme (IGNOAPS)

All individuals in the age group of 60-79 years and those above 80 years belonging to BPL families whose income is up to ₹7995 in the rural areas and up to ₹9974 in the urban areas receive a monthly pension of ₹600 of which ₹400 comes from the state exchequer and the rest from the centre. Persons in the age group 80 years and above and satisfying the same preconditions receive a monthly pension of ₹700. The total number of beneficiaries in the state till December 2018 were 99,9132.

Indira Gandhi National Disability Pension scheme

All disabled persons belonging to the age group 18-79 years and conforming to the eligibility criteria under the Rights of persons with Disabilities Act, 2016, which replaced the erstwhile Persons with Disabilities Act of 1995, are eligible for a pension of ₹600 per month if their annual income does not exceed ₹7995 in the rural and ₹9474 in the urban areas respectively. As on December 2018 the state of Jharkhand has 23,793 beneficiaries under the Disability Pension Scheme. The centre and the state have an equal share in this scheme.

Indira Gandhi National Widow Pension scheme

Under this scheme all widows belonging to BPL families and in the age group of 40 and 79 years are entitled to a monthly pension of ₹600 provided their annual income does not exceed ₹7995 and ₹9474 in the rural and the urban areas respectively. 2,67,770 widows receive pension under this scheme in the state. The centre and state contribute 50:50 to this scheme.

State Social Security Pension scheme

This scheme benefits all widows, disabled persons and released bonded labour above 18 years of age. Helpless persons of 60 years and above from non BPL families with an annual income of ₹10,500 in the rural and ₹12,500 in the urban areas are also eligible for this pension which amounts to ₹600 per month funded by the state government. There are 324441 persons receiving state social security pension in Jharkhand.

Adim Jan Jati (primitive tribes) Pension scheme (AJJPY)

The state of Jharkhand is tribal-dominated with approximately 29 percent of population belonging to one or the other tribes. Of these, 8 tribes have been identified as Particularly Vulnerable Tribal group (PVTG). These PVTGs are tribal groups within the Schedule tribes are classified on the basis of their level of development, their rate of population-growth, their means of livelihood etc. These tribes are Asur, Birhor, Birajia, Pahariya, Korwa, Mal Pahariya, Sauria Pahariya and Savar. The AJJPY was launched to help meet the

development challenges of these 8 tribes. The scheme entitles each of these families to a monthly pension of ₹600. The state has 45,052 beneficiaries under the AJJPY.

Rajya Vidhwa Samman Pension Yojna (RVSPY)

RVSPY ensures a monthly pension of ₹600 to all the widows in the state who are above 18 years of age to help meet their needs. There are 1,58,166 widowed beneficiaries receiving pension under this scheme.

State Pension scheme for HIV/AIDS affected persons/ Immune-Deficiency Pension scheme

This scheme is intended to provide financial relief to all the people affected with HIV/AIDS. The beneficiaries receive ₹600 per month. The scheme is funded by the state government and there are 2630 persons covered under this scheme.

Conclusion

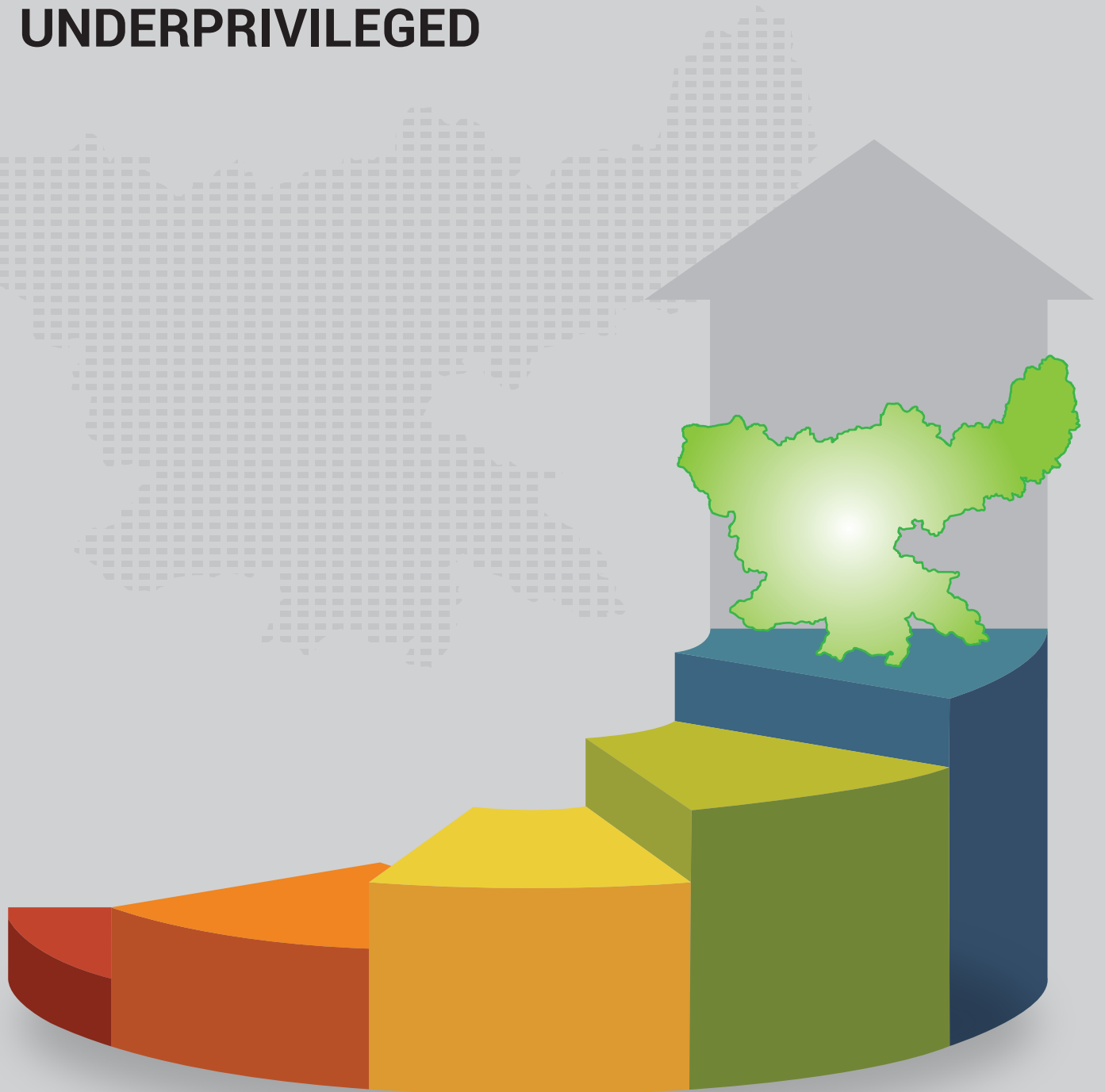
The FY 2018-19 has been a fulfilling year in many ways for the department of Women and Child Development and Social Security in the state of Jharkhand. The department has built upon and strengthened each of its schemes for the growth and empowerment of women and attempted to provide financial aid for better health,

education, capacity building and job skilling. The intent of gender-budgeting has been to do justice to each of the genders and eliminate discrimination and stimulate the women to catch up with the men. Increase in women-literacy and a multitude of financial incentives for the girl child have fostered a gender-friendly environment. The ICDS programme has been growing in leaps and bounds and more children are breastfed, receive immunization and proper nutrition.

One notable achievement during the last planning period was the synergy developed between the Departments of Health and Family Welfare and the Social Welfare Department which has given a significant impetus to the implementation and impact of the various programmes evidenced by the exemplary success of routine immunization in the Anganwadi centers to the children and mothers.

The outreach of the programmes especially the welfare and social security programmes needs to be widened and the unserved and the underserved areas included. At the same time service-delivery mechanisms to the beneficiaries need to be simplified and made more efficient and effective.

**TRIBAL WELFARE
AND INTERVENTIONS
FOR THE
UNDERPRIVILEGED**

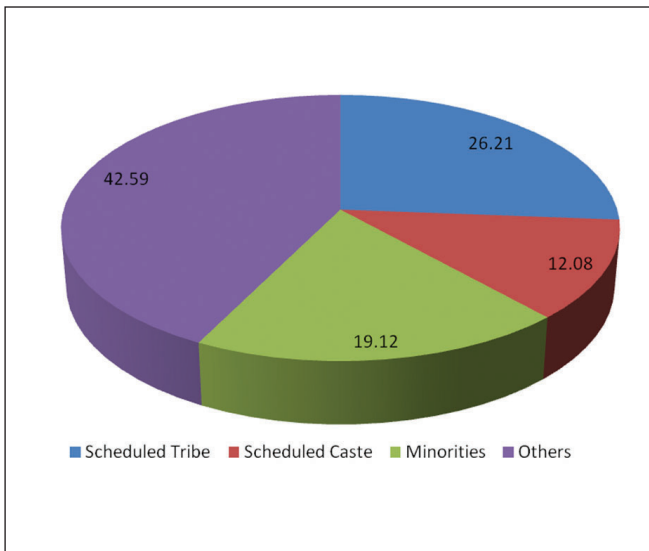


In order to ensure equity in the state and achieve inclusive development, the government of Jharkhand has taken several steps to improve the standard of living of the tribal and other underprivileged groups of the state. The Scheduled Tribes and other underprivileged groups, in Jharkhand, like in rest of the country, are not homogeneous. They show a great variation in their economic, social, political, educational, and health status. They, therefore, have received differential treatment from the government. The programmes best suited to their needs have been initiated by the government of Jharkhand. This chapter discusses the status of the Scheduled tribes, Scheduled castes and other minority groups and the programmes aimed at improving their living standards.

The Social Composition of Jharkhand

The socially and economically underprivileged in the society mainly comprises of the Scheduled Castes, Scheduled tribe and the minorities. They constitute about 57.4 per cent of the total population of Jharkhand. Among them the Scheduled tribe is numerically the major community, constituting about 26.2 per cent of the population of the state. Out of 32.99 million people living in the state, 8.65 million are the Scheduled Tribes (Census of India, 2011).

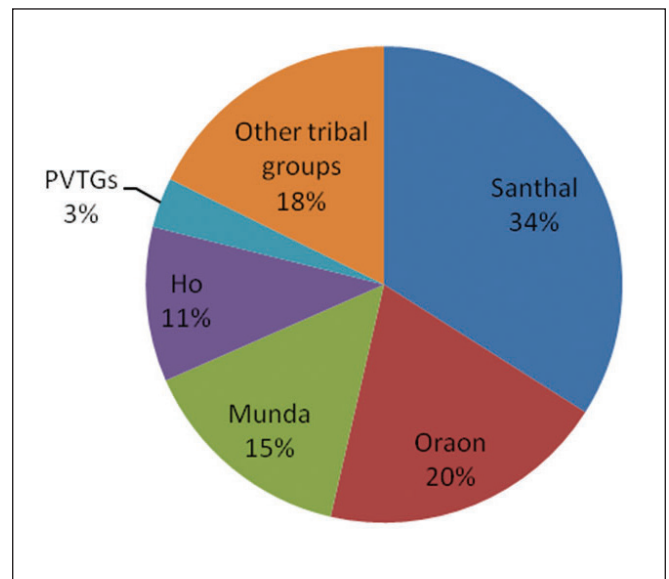
Figure 15.1: The Social Composition of Jharkhand



Source: Census 2011

The Scheduled Tribes of Jharkhand consist of 32 tribal groups out of which 8 are Particularly Vulnerable Tribal Groups (PVTGs)¹. Out of them Santhal is the most populous tribe constituting about 34 per cent of the total ST population of the state. Oraon, Munda and Ho, the 2nd, 3rd and the 4th largest tribes constitute 19.6, 14.8 and 10.5 per cent respectively of the total ST population of the state. These four major tribes thus constitute more than three fourths of the total tribal population of the state.

Figure 15.2: The Composition of the Scheduled Tribes of Jharkhand



Source: Census 2011

There is an inter-district variation in the tribal population. Khunti has the highest and Koderma has the lowest proportion of STs - 73.25 per cent and 0.96 per cent, respectively. Apart from Khunti, the STs constitute more than half of the total population in Simdega, Gumla, Lohardaga and the West Singhbhum districts also. The STs are concentrated mainly in the southern and the north eastern part of the state. Since they are primarily rural - about 91 per cent of them reside in villages. Their number is less in the urbanized and industrialized districts. They are less in the erstwhile zamindari areas (the Palamau region; which was famous for the zamindari exploitation and rack renting) and the districts bordering Bihar.

¹ Earlier they were known as Primitive Tribal Groups (PTGs).

Table 15.1: 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), Hazaribag (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),

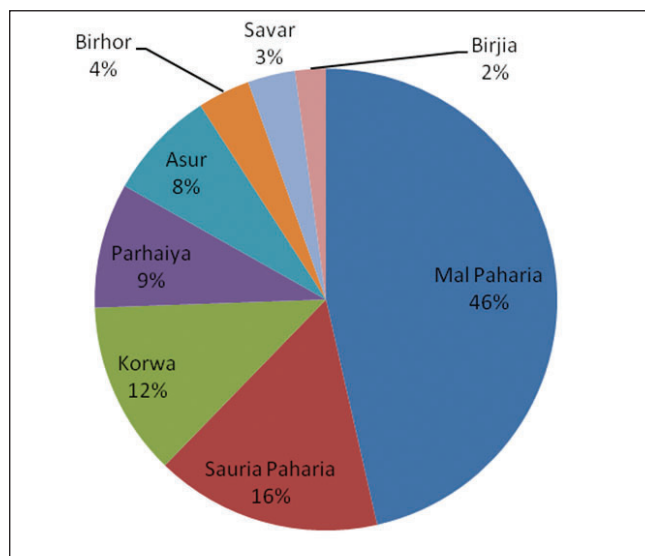
Source: Census 2011

Among the major tribes of the state, the Santhals are concentrated in the Santhal Pargana region that is, the districts located in the north eastern part of the state – Giridih, Dumka, Pakur and Sahebganj. They are present in a sizable number in the East Singhbhum district also. The Oraons are concentrated in Lohardaga, Ranchi and Gumla districts. 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.

As mentioned above, the eight PVTGs of the state constitute about 3.4 per cent of the tribal population. Among them the Mal Paharia is numerically the largest one constituting about 46 per cent of the PVTG population of the state, followed by Sauria Paharia constituting about 16 per cent of the PVTG population of the state. Birjia, Savar and Birhor are numerically the smallest PVTGs constituting about 2 per cent, 3 per cent and 4 per cent of the PVTG the state respectively.

The Sauria and Mal Paharias are mainly concentrated in the Santhal Pargana region of the state. About 98 per cent of the Sauria Paharias and 56 per cent of the Mal Paharias live in the Pakur, Sahebgunj and Godda districts of this region. Similarly the majority of Korwa and Parahia live in the Palamau region of the state. About 88 per cent of the Korwas and 93 per cent of the Parahias live in Garhwa, Palamau and Latehar. 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. Though Birhor is a more dispersed community than the rest of the PVTGs, more than half of them live in Hazaribagh, Chatra, Gumla and West Singhbhum.

Figure 15.3: The Composition of PVTGs of Jharkhand



Source: Census 2011

Scheduled Caste and Minority Communities

Based on the Census of India, 2011 data, the Scheduled Caste and other minority communities comprise 12.08 per cent and 19.12 per cent, respectively, of the total population of Jharkhand. Twenty two Scheduled Caste communities and five religious minority communities live in this state.

Out of 22 SCs, Chamar is the most populous caste, constituting about 26 per cent of the total SC population. 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. The other SCs in descending order are Dhobi, Bhogta, Baurri, Turi and Rajwas. Along with Chamar, Bhuiya and Dusadh, these five communities constitute about 86 per cent of the

total SC population of the state. Four castes, Musahar, Pasi, Ghasi and Dom, account for another 11 per cent of the 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. Bantar, Choupal, Halalkhor and Kanjar are numerically the smallest Scheduled Castes communities of the state.

A district wise analysis shows that the percentage of the Scheduled Caste ranges between 3.16 per cent in Pakur

and 32.65 per cent in Chatra. The SCs constitute more than 20 per cent of the population of the districts of the Palamau region. The districts bordering Bihar also have a high concentration of the SC population. The districts having high concentration of ST, usually, have low concentration of SC population. 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.

Table 15.2: Inter District Concentration of the Scheduled Castes in Jharkhand

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),
More than 30	Chatra (32.66),

Source: Census 2011

The minority religious communities comprise of the Muslims, Sikhs, Christians, Buddhists, Zorastrians (Parsis) and Jains. They have been notified as minority communities by the Government of India in the Gazette under Section 2(c) of National Commission for Minorities Act, 1992. Among them only five of them namely Muslims, Sikhs, Christians, Buddhists and Jains have a significant presence. Among the five major religious minorities living in the state, the Muslims are numerically the largest. They constitute 14.5 per cent of the population of the state. Christians, the 2nd largest religious minority community in the state constitute only 4.3 per cent of the population of the state. The rest of them constitute less than 1 per cent of the population of the state – the Sikhs 0.22 per cent, the Buddhists 0.03 per cent and the Jains 0.05 per cent.

Like the other communities, there is an inter-district variation in the presence of the minority communities in Jharkhand. Simdega has the highest and Saraikela has the lowest presence of the minority communities. While more than half of the population of Simdega belong to the minority community, less than 7 per

cent of the population of Saraikela belong to minority communities. Six of the districts of Jharkhand namely Simdega, Gumla, Khunti, Ranchi, Pakur and Sahebganj have been recognised as the Minority-Concentrated Districts (MCD) by the Ministry of Minority Affairs of the Government of India. While more than 20 per cent of the population of Gumla, Ranchi and Khunti belong to the minority communities, more than 40 per cent of the population of Simdega, Pakur and Sahebganj belong to such communities. Sahebganj and Pakur have a large percentage of Muslims – about 35 per cent of the population of these districts belong to this community. Simdega, Khunti and Gumla, on the other hand, have a sizable presence of the Christians. More than half of the population of Simdega are Christians. The Christians constitute about 25 per cent of the population of Khunti and 20 per cent of the population of Gumla. Deoghar, Giridih, Jamtara, Lohardaga and Godda also have a sizable presence of the people of the minority communities. More than 20 per cent of the population of Deoghar, Giridih, Jamtara, Lohardaga and Godda are Muslims.

Table 15.3: Inter District Concentration of Minorities in Jharkhand

Percentage of Minority population	Districts
Less than 10	Saraikela (6.86), West Singhbhum (8.46),
10 to 20	East Singhbhum (12.0), Palamau (12.66), Bokaro (12.77), Dumka (14.68), Ramgarh (14.96), Garhwa (16.05), Chatra (11.92), Koderma (15.38), Latehar (16.19), Dhanbad(16.92), Hazaribagh (17.38),
20 to 30	Deoghar (20.73), Ranchi (21.04), Giridih (21.52), Jamtara (21.52), Lohardaga (24.23), Gumla (24.84), Godda (24.92), Khunti (28.21),
40 to 50	Sahebganj (41.89), Pakur (44.39),
Above 50	Simdega (53.81),

Source: Census 2011

Other Forms of Deprivation

Besides the socially deprived communities, there are people in the state who suffer from other forms of deprivation. The women-headed households and those who are physically challenged or the transgenders also suffer from deprivations. According to the SECC data 10.45 per cent households in Jharkhand are women-headed. It is less than the percentage of the women-headed households of India - 12.88 per cent of the households in India are women-headed. About 6.9 persons per lakh people in the state are transgenders. Altogether there are 2270 transgender persons in the state.

The 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 all India level. About 2.9 per cent of the physically challenged persons of the country live in Jharkhand. The following table 15.4 makes a comparison of the percentage of people with disability between the rural and the urban areas and between India and Jharkhand. Unlike the rest of India, in Jharkhand, the incidence of all types of disability is higher in the urban areas than in the rural areas. But this is mainly because of the under reporting of disability in the rural areas than in the urban areas of the state.

Table 15.4: Percentage of people with disability in India and Jharkhand

		Seeing disability	Hearing disability	Speech disability	Locomotive disability	Mental retardation	Mental illness	Other disability	Multiple disabilities	Any Disability
All India	Rural	0.27	0.14	0.10	0.40	0.10	0.08	0.23	0.17	1.54
	Urban	0.20	0.08	0.07	0.24	0.08	0.07	0.19	0.13	1.08
Jharkhand	Rural	0.38	0.21	0.20	0.41	0.10	0.08	0.19	0.17	1.85
	Urban	0.76	0.41	0.31	0.43	0.14	0.11	0.27	0.16	2.59

Source: SECC 2011

The Deprivation of the STs and SCs

Economic Status of the SCs & STs

Income Distribution

In Jharkhand about 76 per cent of the population live in the rural areas which is higher than the national level where it is about 6 percentage less. The SCs and STs are

more ruralised than the rest of the communities. More than 80 per cent of the SCs and more than 90 per cent of the STs live in rural areas.

The SECC data reveals that about 82 per cent of the SC households in rural Jharkhand have a monthly income of less than ₹5000. In Latehar, Khunti, Lohardaga and Pakur districts more than 92 per cent households

have a monthly income less than ₹5000. The overall status of the ST households is better than that of the SC households but in some of the districts it is equally bad. Districts like Pakur, Dumka, Giridih and Khunti have more than 92 percent rural ST households with a monthly income below 5000, almost as bad as that of the SC households.

Housing

In rural Jharkhand 67.75 per cent of the households have Kuchha houses compared to 36.61 per cent in India and 53.64 per cent in eastern India. Among the districts, Latehar has the highest percentage of Kuchha houses at 92.12 per cent followed by Khunti (91.58 per cent) and Simdega (90.45 per cent). The percentage of Kuchha houses is the lowest in Ramgarh (41.87 per cent) which is still greater than at the national level.

About 20 percent of the rural SC households in Jharkhand live in one room with Kuchha walls and Kuchha roofs. The proportion of the rural SC households living in such conditions is high in the districts of Pakur and Sahebganj. About 16 percent of the tribal households in the rural Jharkhand are living in one room with Kuchha walls and Kuchha roofs. In some of the districts the condition is even worse. In Pakur 32 per cent and in Sahebganj 30 per cent of the ST households live in such houses.

Literacy

As per Census 2011, the literacy level of India stands at 74 per cent and for Jharkhand it drops to 68 per cent which goes down further in the case of STs and stands at 57 per cent. The literacy level among the female population in the ST category further goes down to 41 per cent.

Educational status of SCs/STs

In Jharkhand, 41 percent of the rural SC households have no literate adults above 25 years of age. Chatra has the highest proportion of SC households with no literate adults. On the other hand, West Singhbhum had the lowest proportion of SC households with no literate adults.

The proportion of rural ST households with no literate adults above 25 years was the highest in the district of Pakur followed by Sahebganj. The proportion of ST households with no literate adults in these districts was

much higher than the state average.

Table : Percentage of SC and ST households with no literate adults above 25 years of age

Districts	Percentage of SC households with no literate adults	Percentage of SC households with no literate adults
West Singhbhum	9.6	15.93
East Singhbhum	14.1	27.35
Saraikela	21.94	25.92
Simdega	33.07	25.58
Gumla	20.73	26.2
Khunti	34.32	31.2
Ranchi	29.77	25.96
Lohardaga	35.7	34.33
Ramgarh	28.73	34.78
Bokaro	33.79	38.1
Dhanbad	29.15	35.76
Jamtara	41.71	42.0
Deoghar	43.21	43.63
Dumka	39.96	39.35
Pakur	53.03	53.37
Godda	47.16	47.07
Sahebganj	50.76	52.64
Giridih	38.13	52.26
Hazaribagh	40.05	41.28
Koderma	37.17	50.16
Chatra	60.23	39.43
Latehar	56.71	39.41
Palamau	51.2	35.48
Garhwa	46.79	40.53

Source: SECC, 2011

Schemes Launched by the Department Of Schedule Tribes, Schedule Castes, Minority And Backward Class Welfare

In order to reduce the socio economic deprivation of the SCs, STs and the other underprivileged communities and to improve their well-being, the Welfare Department of the government of Jharkhand has taken several initiatives in the last few years. The programmes and schemes launched by the department are as follows:-

Education

1. E-learning Programme/Setting Science Laboratory & Library:

With an objective 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 2018-19. The nodal agency for setting up an ICT lab is JAPIT. Additionally, the department also intends to set up science labs and libraries in the residential high schools, run by the department. The total budgetary provision for the stated scheme is Rs. 3000.00 Lakh.

2. Pre-Matric Scholarship

The objective of the pre-matric scholarship is to ensure continued school education of all the students belonging to the ST/SC and BC category and reduce their dropout rate. The amount of scholarship varies on the basis of the class of the students. The amount given to the students is as follows:-

Class	Category (ST & SC)
Class I-IV	Rs. 500/- per student per year
Class V-VI	Rs. 1000/- per student per year
Class VII-VIII	Rs. 1500/- per student per year
IX-X	Rs. 2250/- per student per year

In 2016-17, this scholarship was given through the DBT from class V onwards. In 2017-18, the scholarship was provided to the students from class II onwards and its outreach further increased to class I students in 2018-19. As a result, there was a high increase in the number of beneficiaries in 2017-18 from approximately 12.1 lakhs in 2016-17 to 22.26 lakhs in the year 2017-18 – an increase of 84 per cent in one year. In the year 2018-19 it is expected to fall marginally to 20.3 lakhs students. For all the three consecutive years, Ranchi had the highest number of recipients of this scholarship. Also, the highest number of recipients were among the BC Category followed by the ST and SC.

3. Postmatric Scholarship

Postmatric scholarships encourage the students of the ST/SC and BC category to pursue a higher and technical education thereby increasing the Gross Enrolment Ratio in higher & technical education.

The amount of scholarship is as follows:

Group of Course	Rate (in Rs.)
Courses of Grade I	Maximum 50000/- per student per year
Courses of Grade II	Maximum 30000/- per student per year
Course of Grade III	Maximum 25000/- per student per year
Courses of Grade IV	Maximum 15000/- per student per year

The postmatric scholarship shows a similar trend in the pre-matric scholarship. The number of recipients was the highest among the BC followed by the ST and SC. For a period of two continuous years 2016-17 and 2017-18, the highest number of recipients was from Ranchi followed by Hazaribagh. The lowest number of recipients was from Jamtara. Also, there was a fall in the number of scholarship-seekers in 2017-18.

4. Merit cum Means Scholarship:

Ministry of Minority Affairs (MoMA), GoI directly implements Merit cum Means Scholarship. Under this scheme, scholarship is offered to students from the minority communities in the technical institutions. Those students whose family income is (or less than) Rs 2.5 lakh per annum are eligible to avail this scholarship. The scholarship is provided for education in the professional and technical colleges. During 2017-18, 80421 applications (60951 fresh applications and 19470 applications for renewal) have been sent to MoMA, GoI, which is 2 times more than the applications sent to MoMA in 2016-17.

5. 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. They are exempted from the examination fees in the matriculate and Intermediate examinations conducted by the Jharkhand Academic Council. This encourages the students to continue their schooling, who would have otherwise dropped out due to their inability to pay the examination fees.

6. Cycle Distribution Scheme:

The department aims to incentivize the students, belonging to the ST/SC/OBC/Minority category enrolled in Class VIII of government schools/

government aided schools with an objective to ensure their smooth transition and address dropout rates. The benefits of Cycle Distribution Scheme are being given to the eligible students through Aadhaar Enabled DBT. Till 2017-18, the provision of cycle was Rs. 3000.00

per student, which is increased to Rs. 3500.00 per student in the year 2018-19. During 2018-19, the total budgetary provision under this scheme is Rs. 11600.00 lakh. Following are the details of students incentivized in the last 3 years.

Details of students benefitted under Cycle Distribution Scheme

Year	Number of Students Benefitted				
	Total No. of Students	ST Students	SC Students	BC	Minority
2016-17	492820	152329	58322	215089	67080
2017-18	296927	94520	41984	118542	41881

7. PRESERVATION AND PROTECTION OF TRIBAL CULTURE

With an objective to preserve and protect the tribal culture in the state, the department has made a provision of Rs. 5500.00 Lakh for ensuring boundary walls of SARNA/MASNA/HADGADI/JAHERSTAN (sacred placed & place of burial) and Rs. 2000.00 lakh for constructing 170 Tribal Culture Centre/Manjhi – Manki House/ Dhumkuria Bhawan (unit cost: Rs. 12.277) during 2018-19. Till 2014, a total of 647 such schemes of SARNA/MASNA/HADGADI/JAHESTAHN were sanctioned by the department whereas, from 2014 to 2017-18, the department has sanctioned 1110 units of SARNA/MASNA/HADGADI/JAHESTAHN. In the current financial year 2018-19, the department has sanctioned 419 units under the said scheme. With an objective is to promote the tribal culture of Jharkhand, the department has released Special Postal Cover and My Stamp on 2 tribal festivals (SARHUL and KARMA) during 2018-19.

HEALTH

1. Medical Aid:

This scheme provides assistance to the poor families of ST/SC/OBC for immediate medical help. The provision of medical aid under this scheme is maximum Rs. 10000.00. The District Welfare Officer provides a

maximum of Rs. 3000.00 and the Deputy Commissioner provides medical aid of a maximum of Rs. 10000.00

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 the medical facilities. This scheme makes medical facilities accessible as well as affordable to them. There are 18 Pahariya healthcare centres opened in the Pargana area by the department. The centres provide the facilities of medical checkups, Auxiliary Nurse Midwife (ANM), Male Health Specialists and medicines.

3. Safe & Adequate Drinking Water Facility:

During 2018-19, the Ministry of Tribal Affairs, GoI has sanctioned Rs. 8571.40 lakhs to provide safe & adequate drinking water facility (08 rural piped water schemes and 351 HYDT/solar based drinking water schemes) under Article 275(1), SCA to TSP and Conservation cum Development (CCD).

4. Rural Hospital:

With an objective to provide free-of-cost primary health care services to the underprivileged, especially the Scheduled Tribe population residing in the Scheduled Areas, the department has set up 14 rural hospitals in Jharkhand. Following are the details of rural hospitals:

SI No	Place	District	Remarks
Existing Rural Hospitals			
1	Basardih	Lohardaga	Tender finalized, agreement signed with selected agencies and hospitals handed over to the selected agencies and is being operated and maintained by the respective agencies since last two months

SI No	Place	District	Remarks
2	Jonha	Ranchi	Tender finalized, agreement signed with selected agencies and hospitals handed over to the selected agencies and is being operated and maintained by the respective agencies since last two months
3	Erki	Khunti	
4	Kuchai	Seraikela Kharsawan	
5	Kathikund	Dumka	
6	Littipara	Pakur	
7	Pathna, Kendua	Sahebganj	
8	Nala	Jamtara	
9	Banmakri, Behragoda	East Singhbhum	
New Rural Hospitals			
10	Mananchutang	Latehar	Tender finalized, and agreement signed with the selected agencies and OPD services has been started from 1 st December 2018.
11	Bano	Simdega	
12	Lododih, Chakardharpur	West Singhbhum	
13	Nagfeni	Gumla	
14	Badachiru, Chaibasa	West Singhbhum	

Following are the key services of rural hospitals:

- OPD
- Inpatient services
- Anaesthetic services
- Investigation procedures
- Reproductive and child health
- Referral services
- Outreach services
- Safe water supply and basic sanitation

- Collection & reporting statistics

HOUSING

Birsa Awas Yojna:

The department is implementing Birsa Awaas Yojna (BAY) since the formation of the state. The objective of this scheme is to provide access to housing facilities to the households belonging to the PVTG category with a 100per cent grant support to the tune of Rs. 131500/- per housing units. Following are the details of the budget earmarked/spent in the last 3 years:

Progress of Birsa Awas Yojana

Financial Year	Amount Sanctioned (Rs. in lakh)	Expenditure (Rs. in Lakh)	% Expenditure	No. of Units Sanctioned
2015-16	499.20	391.95	78.52	768
2016-17	699.40	647.37	92.56	531
2017-18	2000.00	1957.01	97.85	760
2018-19*	6000.00	2375.82	39.59	4540

Shaheed Gram Vikas Yojana

During 2017-18, the department has launched a scheme called Shaheed Gram Vikas Yojana. The key objective of this scheme is to extend tribute to the tribal martyrs who have fought the Indian War of Independence against the British by developing their birthplace as Model Villages.

Major components of the Scheme:

Housing, drinking water, solar electricity, lift irrigation, renovation of memorial site/statues and other need-based infrastructures

Following are the details of the villages and projects taken under this scheme:

Sl No	Name of Tribal Martyrs	District	Village	Number of Houses Sanctioned @ Rs. 2.63 Lakh per unit	Other Infrastructural Projects
1	Birsa Munda	Khunti	Ulihatu	182	Drinking water, boundary walls of Primary Schools, solar street lights, roads (paver blocks), solar lamps for students, statues of martyrs etc.
2	Gaya Munda		Etkedih		
3	Vir Budhu Bhagat	Ranchi	Silagai	100	Micro Lift Irrigation, drinking water, renovation of ponds, akhras, toilets in schools, Toil in AWC and its boundary walls, Dhumkuria etc.
4	Siddhu-Kanhu and Chand-Bhairav	Sahebganj	Bhognadih	67	Repair of AWC, well, solar street lights, solar lamps for students, boundary walls of HSC etc.
5	Nilambar-Pitambar	Garhwa	Madgadi	140	Solar light schools, statues of martyrs, entrance gates, market sheds, drinking water, solar street lights, etc.
6	Telanga Khadiya	Gumla	Murgu (sisai)	96	Statues of Martyrs, Renovation of Memorial Sites, Drinking water, Boundary walls of AWC, Solar Street Light etc.
7	Tana Jatara Bhagat		Nawatoli		
8	Divya Kisun	Seraikela Kharswan	Gumid Pur Dipadih	283	Entrance gates of memorial sites, statues of martyrs, repair of AWC & hand pumps, drinking water, solar street lights, etc
Total				868 units	

LIVELIHOOD SECURITY

Skill Development

The government of Jharkhand (GoJ) and Pan IIT Alumni Reach for India Foundation (PARFI) has set up a Special Purpose Vehicle (SPV) namely Pan IIT Alumni Reach for Jharkhand (PREJHA) Foundation with a mission to design, implement and scale-up self-sustainable initiatives for skill-development and livelihood-enhancement with special focus on the marginalized communities such as the Scheduled Tribes (ST), Particularly Vulnerable Tribal Groups

(PVTG), Scheduled Castes (SC), and other minorities. The objective of PREJHA Foundation is to set up at least 1 Kalyan Gurukul to enhance youth skills and ensure their profitable employment.

Kalyan Gurukul is the flagship initiative of PREJHA Foundation for placement-linked skill development of the marginalised communities. Gurukuls are full time, short term, residential skill development centres imparting training in sectors such as Construction, Manufacturing, Logistics, Infrastructure and Apparel. The technical training is imparted using appropriate and

the latest technologies and state-of-art infrastructure to simulate real-life work environment. The technical training is complemented with soft skills comprising of spoken English, life skills, etiquettes, etc. coupled with efforts for imbibing ethics and discipline. Managed by ex-servicemen from Military Engineering Services, Kalyan Gurukuls reflect the values and culture of the ancient Indian Gurukul system of education.

Details of Youths Skilled & Placed as on the 27th of November 2018

Year	Number of Youths Trained	Number of Youth Placed
2016-17	1859	1474
2017-18	1903	1560
2018-19 (As of Nov'2018)	2649	2292
Total	6411	5326

Jharkhand Tribal Empowerment & Livelihoods Project (JTELP):

IFAD supported JTELP is being implemented by Jharkhand Tribal Development Society (JTDS), a society for the Department of Welfare (now the Department of Scheduled Tribes, Scheduled Castes, Minority and Backward Class Welfare) , in 1790 villages (having more than 50per cent ST population) in 32 blocks across 14 TSP districts of Jharkhand. The project is working with 2.15 lakh households (76per cent ST households). The key components of JTELP are:-

Community Empowerment:

Formation of Self-Help Group (SHG), Youth Group, Gram Sabha Project Execution Committee and their capacity development

- 5360 SHGs formed (Rs. 5.52 crore given to SHGs as Seed Capital)
- 707 Youth Groups formed (Rs. 1.50 Crore given to SHGs as Seed Capital)
- 1625 Gram Sabha Project Execution Committee (GSPEC) formed: Rs.17.90 Crore given to GSPEC for the Village Development Fund

Integrated Natural Resource Management:

Crop Diversification (SRI-Paddy), the creation of shallow wells & farm ponds, the construction of Farmer Service Centres etc.

Livelihood Development:

The enhancement of livelihood through livestock intensification, developing pig-breeding centres and goat breeding centres, promotion of vegetable clusters, raising mango orchards, raising nutrition gardens, barbatti cultivation with PVTG community, fruit tree plantations with PVTG community etc.

The total cost of the project is 635crores for a duration of 8 years from 2013-21.

This cost is shared among these institutions as follows:

- IFAD Contribution: Rs. 280.00 Cr (Loan component)
- SCA to TSP: Rs. 83.00 Cr
- MNGREGA: Rs. 243.00 Cr (notional)
- GoJ: Rs. 25.00 Cr
- Beneficiary: Rs. 4.00 Cr

Annual Work Plan & Budget of JTELP for the year 2018-19: Rs. 158.29 Cr

- IFAD component: Rs. 66.95 Cr. (Loan component)
- GoJ: Rs. 5.62 Cr
- SCA to TSP/Article 275(1)/CCD: Rs. 32.34 Cr
- MGNREGA: Rs. 50.36 Cr (notional)
- Beneficiary: Rs. 1.45 Cr

Following are some of the results of JTELP:

Sl No	Particulars	Number
1	Farm Ponds	1550
2	Irrigation Wells	139
3	Shallow Wells	679
4	Enhancement of Livelihood through Livestock Intensification: Piggery	1551
5	Enhancement of Livelihood through Livestock Intensification: Poultry	3529
6	Enhancement of Livelihood through Livestock Intensification: Goat	3449

SI No	Particulars	Number
7	Pig Breeding Centre	16
8	Goat Breeding Centre	04
9	Promotion of Vegetable Cluster	7633 farmers
10	Promotion of Barbatti Cultivation	4200 farmers
11	Fruit Plantation	2000 farmers
12	Papaya Cultivation	7.50 acres of land (150 Acre land in pipeline)
13	Mango Orchard	108 acres of land

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 is implementing the THP project

in association with Bandhan-Konnagar and Abdul Latif Poverty Action Lab (J-PAL) in Dumka (Dumka Sadar and Masalia blocks) and West Singhbhum (Tonto & 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 poverty in 24 months.

Outcomes Envisaged under THP project

- Rise in income up to INR 3,600 per month through sustained self-employment
- Improvement in the nutritional status
- Beneficiaries able to save regularly, at least INR 350 quarterly; linkages for SHGs
- Growth in asset value up to INR 20,000
- Children (0 – 5 age group) of beneficiaries 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

Programme Implementation Framework of THP in Jharkhand

Selection of Beneficiaries	Training and transfer of assets	Extending need-based support
Targeted selection of beneficiary through: Analyzing SECC data Participatory Rural Appraisal (PRA) process including social mapping, wealth ranking, household survey On-site / physical verification.	Providing Enterprise development and confidence- building training Temporary consumption support through training allowances Enabling beneficiaries to opt for suitable non-farm enterprises Transfer of the relevant productive assets (farm/ non- farm)	Imparting technical and business skills through regular mentoring and on-site visits Weekly training and handholding support to understand and create awareness about welfare entitlements Increasing awareness about financial literacy, behavioral change for sanitation and hygiene to promote the use of sanitary latrines
Creation of Village Assistance Committee comprising of key stakeholders to work with Bandhan –Konnagar to support beneficiaries across key interventions		

Achievements of THP till 31st July 2018

- A total of 2,000 ultra-poor women headed households, including 120 PVTG selected and 3-day training completed for all
- 151 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, goatry, sal leaves plate making, bamboo craft, grocery / varieties stores, tailoring, mat making, rope making, etc.
- Weekly household visits and group meetings are continued
- Refresher training initiated for the beneficiaries, after the completion of six to eight months of programmed intervention for further capacity-building.
- 2000 more beneficiaries selected for Phase II

Growth of assets distributed under THP project till date

Assets	Value at Inception (Rs. in Lakh)	Present Value (Rs. in Lakh)	% Increase
Piggery	26.53	42.18	58.98
Goatry	146.55	217.16	48.17
Poultry	23.13	31.71	37.05
Items for Grocery/ variety Store	23.63	46.25	95.73
Tailoring & Garment Making	12.25	20.88	70.38
Others	32.70	73.56	124.97
Total	264.79	431.74	63.04

Residential Schools

Given the low literacy rate among the Scheduled Tribes and Scheduled Castes, the department started the Residential School Programme to provide quality education to the STs and SCs which include reforming the Eklavya Vidyalaya/Ashram Vidyalaya on the pattern of Jawahar Navodaya Vidyalaya with improved infrastructure, ICT enablement, remedial education, 100per cent staffing in schools, vocational education, promotion of sports to reduce dropouts, enriched library etc. The department runs residential schools for the students belonging to the ST, SC and OBC categories. The details of the residential schools are as follows:

- Total Number of schools:** 143 residential schools + 32 Paharia Day Schools (Total number of schools: 175)
- Total Number of Active EMRS/Ashram School:** 18 (7+11) : Recurring cost per student (food, uniform, study materials including books etc) enrolled in state run residential schools
 - ❖ Class I-VI: Rs. 27000/- per student/per year
 - ❖ Class VII-XII: Rs. 32410/- per student/per year

Details of functional EMRS and Ashram in Jharkhand

Sl No	Name	Sanctioned Class	Sanctioned Strength	Enrolment	Category
EMRS					
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-VIII	480	178	Girls
6	EMRS, Kujra, Lohardagga	I-XII	480	261	Girls
7	EMRS, Basia, Gumla	I-XII	480	187	Boys

Sl No	Name	Sanctioned Class	Sanctioned Strength	Enrolment	Category
ASHRAM School					
1	Ashram School, Kisko, Lohardaga	I-X	200	160	Boys
2	Ashram School, Bhelwara, Hazaribagh	I-X	200	120	Boys
3	Ashram School, Kuchai, Seraikela	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

The above table shows the enrolment of girls has been quite low in EMRS compared to the boys. Also the overall enrolment in Ashrams and EMRS has been lower than the sanctioned strength.

MINORITY COMMUNITY AND HAZ PILGRIMAGE

A Jharkhand Minority Committee has been formed for the welfare of the religious minority community. In 2016, 2854 persons have been sent to the Hajj pilgrimage. During 2018-19, 2620 persons have been sent for Hajj.

INITIATIVES IN THE DOMAIN OF SPORTS

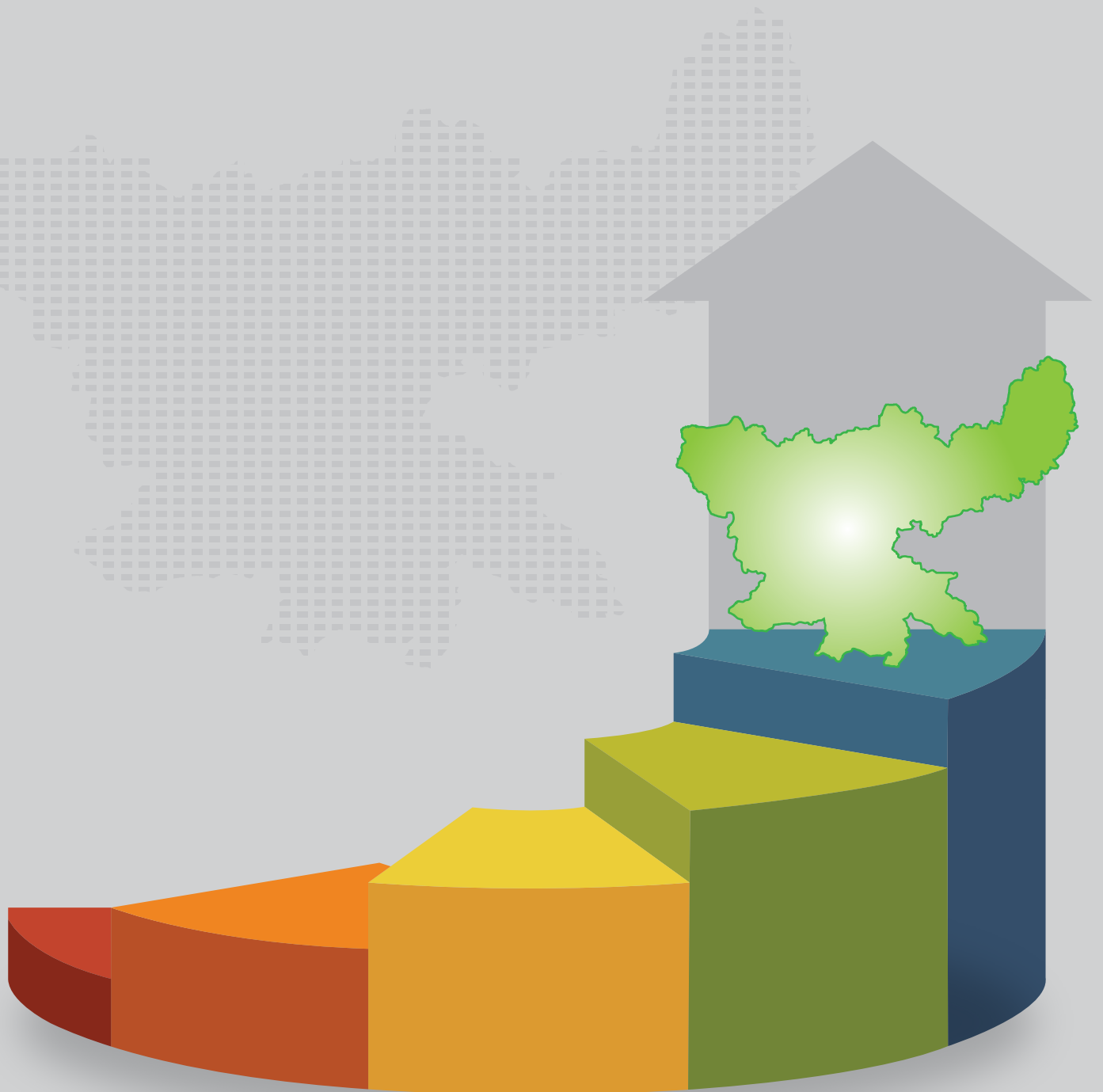
Ministry of Tribal Affairs, GoI has sanctioned Rs.

1400.00 to raise Astro Turf facilities in 2 locations, where the potential of hockey amongst the tribal youth is above par; this strengthens the initiative of Khelo India.

Conclusion

A large percentage of the SCs, STs, minorities and other underprivileged communities live in this state. They suffer from multiple forms of deprivations. In order to remove their deprivations and improve their standard of living the Welfare Department of the government of Jharkhand has taken several steps to improve the education and health and promote the living conditions of these people.

**NATURAL RESOURCES :
FOREST, WATER AND
MINERAL RESOURCES**



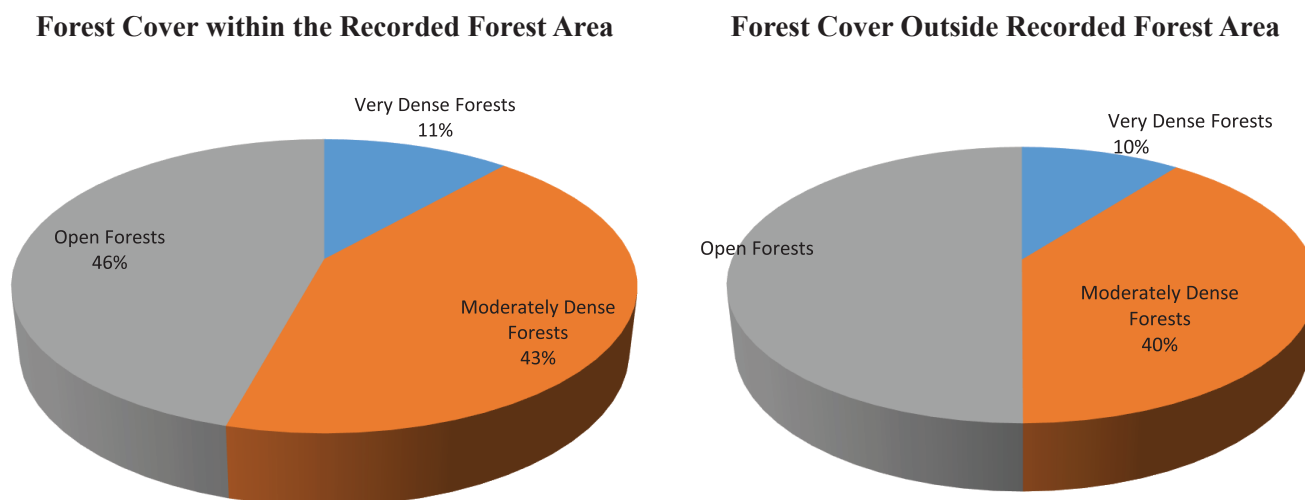
Jharkhand is one of the richest states in terms of natural resources in India. The resources range from flora, fauna, and water to mineral resources. More than one-fourth of its land is covered by the forest area. It is one of the states in India where the forest cover has increased due to the efforts of the state government. The state is known for its wildlife resources too. The famous Palamau National Park is a remarkable example of it. The state is also the origin of many mighty rivers, like Damodar, Sone, Subarnarekha and so on. The land of Jharkhand is full of mineral resources. For instance, the state is a leading producer of coal, bauxite, uranium, mica, and other mineral resources. These resources are the lifelines of the state. Furthermore, most of its indigenous population is socio-economically dependent upon the forest and natural resources, which they use for sustenance.

Forest Resources of Jharkhand

The land use classification given by the *'Land Use Statistics, Ministry of Agriculture, GOI, 2013-14'* showed that 28 per cent of the areas of Jharkhand

were covered by the forests followed by the current fallow land (18 per cent) and the net sown area (17 per cent). The area under forest in the state, however, has increased since then. The satellite images from October to December 2015, found out that the forest cover in the state is 23,553 square kilometres, that is, 29.55 per cent of the total geographical areas of the state. The analysis of forest cover within and outside this area is described in the following sections. The forest cover within the recorded forest areas has been classified into three groups, that is, 'very dense forest', 'moderately dense forest' and 'open forest'. Around 1405 square kilometres of the area is under very dense forest, 5177 square kilometres is under the 'moderately dense forests' and 5556 square kilometres is under the open forests. In the case of the forest cover outside the recorded forest area, 1193 square kilometres are under very dense forest, 4509 square kilometres under 'moderately dense forests' and 5713 square kilometre under 'open forests'. 'The open forest' cover the recorded forest area is higher than the recorded forest area as can be seen in the figure and table below.

Figure 16.1: Type of Forest in Jharkhand in



Source : The Indian State of Forest Report 2017

Table 16.1 : Distribution of Forests in Jharkhand in 2017

Forest Cover within the Recorded Forest Area (Area in Sq. Km)	
Very Dense Forests	1405
Moderately Dense Forests	5177
Open Forests	5556
Total	12138

Forest Cover within the Recorded Forest Area (Area in Sq. Km)	
Forest Cover Outside Recorded Forest Area	
Very Dense Forests	1193
Moderately Dense Forests	4509
Open Forests	5713
Total	11415
Total Forest cover	23553
Tree Cover	2922
Total Forest Cover and Tree Cover	26475
State's Geographical Area	33.21%
India's Forest and Tree Cover	3.3%
Per Capita Forest and Tree Cover	0.08ha

Data Source: *The Indian State of Forest Report 2017*

Around 2922 square kilometres of the state are covered by trees, and 26475 square kilometres area of the state were covered with both forests and trees in 2017. As mentioned above, only a little less than one-third of the geographical area of the state was covered by the forests in 2017. Jharkhand has 3.3 per cent of India's forest and tree cover. The per capita availability of forest and tree cover was 0.08 hectares in the state. In terms of classification according to the forest-canopy density, the state has 2598 square Km area under 'dense forest', 9,686 under 'moderately dense forest' and 11,269 squares under 'open forest'. Under the recorded forest area, the reserved, protected and unclassified forests are 18.58 per cent, 81.28 per cent and 0.14 per cent respectively. However, the digitized boundary of the recorded forest area from the state covers was only 15, 971 sq. kilometres.

The district-wise forest cover has been given in the table below. It can be seen that Pashchimi Singhbhum has 3366 square kilometres of its geographical area under forests, and it is the highest in the state. After Paschimi Singhbhum, Latehar has the second highest forest cover in the state. The forest cover is the lowest in the Jamtara district where only 97 square kilometres of area was covered by forests. The geographical area under 'dense forests' is the highest in Latehar district (477 square kilometres) followed by Pashchimi Singhbhum (462 square kilometres). The four districts of the state which did not report 'dense forests' are Deoghar, Dhanbad, Dumka, and Jamtara. The geographical area under

moderately dense forest is the highest in Pashchimi Singhbhum(1352 square kilometre) followed by Latehar (1311 square kilometre). The geographical area under the 'moderately dense forest' cover is the lowest in Deoghar (14 square kilometres) district of the state. The geographical area under 'open forests' is the highest in Pashchimi Singhbhum (1555 square kilometre) and the lowest in Jamtara (76 square kilometres). The percentage geographical area under forest cover is the highest in Latehar (56 per cent) and is the lowest in Jamtara 5.36 per cent. The forest cover has been increased in the state compared to the 2015 forest-state report. From 2015 to 2017, around 29 square kilometres area under forest has increased. The district-wise growth in the forest cover represents a different picture. On the basis of the change in forest cover in two successive years of the state forest report, the districts have been classified into positive growth, negative growth and no change. Bokaro, Dhanbad, Dumka, Giridih, Godda, Hazaribagh, Jamtara, Lohardaga, Palamau, Pashchimi Singhbhum, Ramgarh, Ranchi, Saraikela-Kharsawan-all these thirteen districts have had positive growth in forest cover while there is no change in forest cover reported from Kodarma, Pakur and Simdega. There is negative forest growth reported from the Chatra, Deoghar, Garhwa, Gumla, Khunti, Latehar, Purbi Singhbhum and Sahebganj districts of the state. 669 square kilometres of the area of the state are covered by scrubs. The largest area under scrubs is reported in Palamau and the lowest area is the Kodarma district of the state.

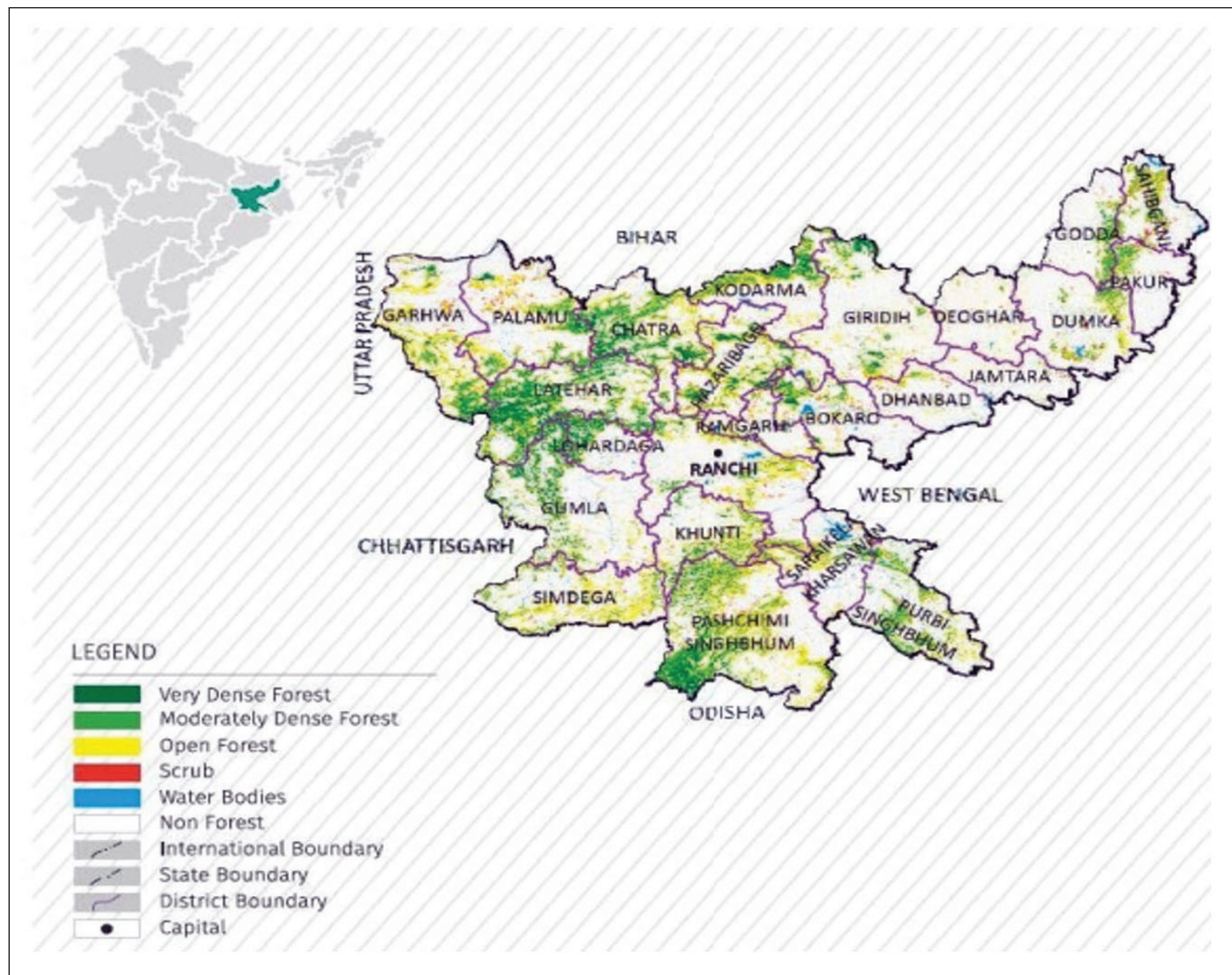
Table 16. 2: District-wise Distribution of the Forest Cover in Jharkhand in 2017

(area in square kilometres)

District	Geographical Areas	Very Dense Forest	Mod. Dense Forest	Open Forest	Total	Per cent of GA	Change	Scrub
Bokaro	2883	61	232	277	570	19.77	3	38
Chatra	3718	249	864	653	1766	47.5	-8	19
Deoghar	2477	0	14	188	202	8.16	-1	12
Dhanbad	2040	0	44	160	204	10	2	20
Dumka	3761	0	259	317	576	15.32	6	44
Garhwa	4093	125	414	851	1390	33.96	-4	62
Giridih	4962	77	339	474	890	17.94	7	28
Godda	2266	13	270	138	421	18.58	7	16
Gumla	5360	305	586	550	1441	26.88	-1	11
Hazaribagh	3555	230	349	772	1351	38	1	19
Jamtara	1811	0	21	76	97	5.36	2	12
Khunti	2535	73	343	488	904	35.66	-7	12
Kodarma	2540	81	494	449	1024	40.31	0	5
Latehar	4291	477	1311	616	2404	56.02	-2	9
Lohardaga	1502	174	219	111	504	33.56	2	8
Pakur	1811	3	172	112	287	15.85	0	20
Palamau	4393	57	521	622	1200	27.32	3	98
Pashchimi Singhbhum	7224	462	1352	1555	3366	46.59	7	52
Purbi Singhbhum	3562	55	592	429	1076	30.21	-1	22
Ramgarh	1341	31	110	188	329	24.53	2	18
Ranchi	5097	63	364	737	1164	22.84	10	35
Sahebganj	2063	18	258	297	573	27.78	-4	67
Saraikela-Kharsawan	2657	22	214	337	573	21.57	5	21
Simdega	3774	22	344	875	1241	32.88	0	21
Total	79716	2598	9686	11269	23553	29.55	29	669

Data Source: The Indian State of Forest Report 2017

Map 16.1 : District-wise Forest Cover in the state in 2017



Data Source: Indian State of Forest Report 2017

Forest Products in Jharkhand

Jharkhand is home to rich forest products. The state accounts for 3.4 per cent of total forest cover of the country, and ranks 10th among all the states. Many important ‘Non-Wood Forest Products (NWFP) are found in the state, like Lac, Tendu leaves or bidi leaves, Sal seeds, Harra, Bahera, Mahua flower, Imli (Tamarind), Van Tulsi etc. In order to provide benefits to forest dwellers in collection and trade of forest produce, Jharkhand government has set up co-operatives including JASCOLAMPF (Jharkhand State Lac Cooperative Lac Marketing Procurement Federation Ltd.) mainly for marketing of lac and JHAMFCOFED (The Jharkhand State Minor Forest Produce Co-operative Development and Marketing Federation Limited) for other minor forest products. Collection and marketing of bidi leaves and specified minor forest produce is the key

responsibility of JSFDC (Jharkhand State Forest Development Corporation Ltd.). In addition, JSFDC has been authorized by the State Government to undertake harvesting and marketing of timber of specified species and bamboo. The main objective of these cooperatives and the corporation is to protect forest dwellers from exploitation by middlemen and petty traders. A list of important minor forest products is at Table 3 illustrating the richness of these products and signifying their importance, especially to the livelihoods of the poor forest-fringe communities.

The Forest Department has undertaken a major initiative to augment the income of primary collectors of MFP, who generally belong to very poor sections of forest-fringe communities in far flung areas of the State, by providing them facilities for primary processing of those MFPs before sale. It is hoped that those poor MFP

collectors would evolve as micro-entrepreneurs thereby rising in the economic ladder. To this end, 62 MFP primary processing centres are being established across the State and adequate training will also be provided to them.

The State has joined the ambitious and revamped National Bamboo Mission launched by Central government this

year. High-tech bamboo nurseries will be established to help farmers and government departments to get good quality planting stock of bamboo for both private and public land plantation. Capacity building of bamboo farmers, entrepreneurs and other stakeholders is part of the Mission, along with infrastructure development for primary, secondary and tertiary industries based on bamboo.

Table 16. 3: Illustrative list of economically important MFPs available in Jharkhand

Botanical Names	The popular name of MFP	Annual Production (approx. in MT)	MSP declared by GOI	Approx. Rate in Market	Main Focus Area	Availability Period (Season)	Produces and Uses Value Added
<i>Tamarindus Indica</i>	Tamarind	50000	31.00	20-22	Simdega, Chaibasa, Lohardaga, Khunti	February – May	Seedless bricks, Paste
<i>Bee sap</i>	Madhu/ Honey	5-10	195.00	140	Palamau, Gumla, Simdega, Chaibasa		Food
<i>Pongamia pinnata</i>	Karanj	10000	19.00	18-22	Gumla, Simdega, Chaibasa, Lohardaga	May – June	Antibiotics oil, Ointment, Spray etc
<i>Sterculia urens</i>	Karaya gum		108.00				
<i>Madhuca indica seed</i>	Dori	50000	25.00	20-24	Gumla, Simdega, Chaibasa, Khunti, Lohardaga, Palamau, Garhwa, Khunti	June – August	Oil / Soap
<i>Shorea robusta</i>	Sal Seeds	More than 100000 M.T	20.00	8-12	Gumla, Simdega, Chaibasa, Lohardaga, Khunti	April– June	Oil / Feed
<i>Shorea robusta</i>	Sal Leaves		30.00		All seasons except summer		

Botanical Names	The popular name of MFP	Annual Production (approx. in MT)	MSP declared by GOI	Approx. Rate in Market	Main Focus Area	Availability Period (Season)	Produces and Uses Value Added
<i>Buchanania lanzan</i>	Chironji guthli	1000	109.00	100-110	Palamau, Garhwa, Khunti, Simdega, Giridih, Bokaro	March- May	Dry fruit, Used confectionary
<i>Terminalia chebula</i>	Mrobalan (Harra)	500	15.00	15-20	Gumla, Simdega, Chaibasa, Lohardaga, Latehar, Ranchi	January- February	Harra powder and Triphala churna
<i>Cassia tora</i>	Chakvar	50000	14.00	10-15	Palamau, Garhwa, Latehar, Ranchi	January- March	Medicine
<i>Hyoscyamus niger</i>	Niger Seed	1000	--	40-50	Gumla, Simdega, Chaibasa. Hazaribhagh, Palamau, Latehar	December- January	Medicine
<i>Mangifera indica</i>	Mango Pulp (Amsi)	500	--	60-70	Hazaribhagh, Gumla, Simdega, Bokaro, Khunti	May- June	Food
<i>Madhuca indica</i>	Mahua Flower	More than 100000 M.T	17.00	22-30	Gumla, Simdega, Chaibasa, Lohardaga, Latehar, Palamau, Garhwa, Khunti (most of the areas of Jharkhand)	March-May	Wine / Medicine
<i>Boswellia serrata</i>	Tawar Gond	100	--	75	Palamau, Garhwa	March-June	Food

Botanical Names	The popular name of MFP	Annual Production (approx. in MT)	MSP declared by GOI	Approx. Rate in Market	Main Focus Area	Availability Period (Season)	Produces and Uses Value Added
<i>Lannea corromandelica</i>	Gijan Gond	500	--	100	Palamau, Garhwa	June-August	Medicine and Food
<i>Andrographis paniculata</i>	Kalmegh (Chiraita)	50	33.00	80-100	Palamau, Latehar	November-January	Medicine
<i>Woodfordia fruticosa</i>	Dhawai phool	20	--		Palamau	December-February	Medicine
<i>Asparagus racemosus</i>	Satawari	50-60	92.00	140-160	Palamau, Gumla, Khunti	All seasons	Medicine
<i>Rauwolfia serpentina</i>	Sarpagandha	10-20	--		Palamau, Simdega, Giridih	September-December	Medicine
<i>Withania somnifera</i>	Aswagandha	10-20	--		Gumla, Lohardaga, Palamu	November-December	Medicine
<i>Butea monosperma</i>	Palas/ Tesuphool	1000 MT	--		Palamau, Khunti, Simdega, Giridih	March-May	Medicine
	Bantulsi	400-500	--	10-20	Palamau, Latehar, Garhwa	November-March	Medicine
<i>Schleichera oleosa</i>	Kusum	5000	--		Gumla, Simdega	June - October	Oil / Feed
<i>Mucuna pruriens</i>	Kaunch beej	40-50	20.00		Palamau, Chaibasa		Medicine
<i>Aegle marmelos</i>	Bael giri	50-100	--		Palamau	March-May	Food / Medicine
	Amla		--				Oil
	Dried Amla pulp		45.00				Medicine

Source: <http://jhamfcofed.com/reso/index.htm>

Forest Conservation and Development Schemes

To conserve and further develop the rich forest resources of the State, the government is implementing various schemes and programmes both inside and outside notified forests. New initiatives include increasing tree

cover outside forest by launching the Mukhyamantri *Jan Van Yojana in 2015-16*. The incentive structure of the scheme has recently been revised in a comprehensive manner whereby subsidy to farmers for tree planting has been increased to 75 per cent. A new programme for rejuvenating the rivers of the State has also been

initiated in 2017-18 by taking up plantation on major river sides across all 24 districts including projects under the ambitious centrally funded Namami Gange programme in Sahebganj district. The programme is being further expanded in the current financial year (2018-19). Regeneration of natural forests is now one of the major foci of the Government, and to this end, silvi-cultural operations (coppicing/ cleaning) coupled with gap/ enrichment planting is being undertaken in a major way. The forest resources of the State is slated to receive a major developmental boost due to these initiatives thereby directly benefiting around 50 per cent of inhabited villages in Jharkhand in the form of increased income from greater flow of forest products, ecosystem services and resilience to Climate Change.

Mukhyamantri Jan-Van Yojana

This scheme is worth special mention. As stated earlier, it was launched with the twin objective of reducing

pressure on natural forest and augmenting income of marginal in 2016-17. Farmers having land from 0.5 acre to 50 acre are eligible under this scheme for plantation on their land. The ownership of plantation under this scheme will lie with the farmers. Necessary transit permit will be issued at the time of harvesting of the trees done under this scheme based on data base of beneficiaries being prepared. The incentive structure has been changed during the current financial year (2018-19) and now 75% of cost of plantation and maintenance up to three years will be borne by State Government. This has given major boost to adoption by farmers, and plantation on 3600 acres has been taken up till Sept, 2018. So far, a total of Rs. 318.00 lakh has been paid to 865 beneficiary farmers for taking up 2445 acre plantations on their lands, and payment to the remaining is under process. Forest division-wise achievement is as below:

Table 16.4: Report for Jan Van Yojana

Sl. No.	District	Name of Division	Bene-ficiaries	Rakba	Fruits	Timber	Adv. Approved Amount	Approved Amount	Total Payment
1	Bokaro	Divisional Forest Officer, Bokaro Forest Division	9	42.30	1842	2722	350325.00	0	350325.00
2	Chatra North	Divisional Forest Officer, Chatra North Forest Division	36	80.82	0	11179	150957.00	0	150957.00
3	Chatra South		0	0.00	0	0	0.00	0	0.00
4	Deoghar	Divisional Forest Officer, Deoghar Forest Division	34	98.00	5520	15357	615851.00	0	615851.00
5	Dhanbad	Divisional Forest Officer, Dhanbad Forest Division	29	60.54	2491	10457	684385.98	0	684385.98
6	Dumka	Divisional Forest Officer, Dumka Forest Division	27	35.71	2464	15703	912579.00	912583	1825162.00

Sl. No.	District	Name of Division	Bene-ficiar-ies	Rakba	Fruits	Timber	Adv. Approved Amount	Approved Amount	Total Payment
7	East Singhbhum	Divisional Forest Officer, East Singhbhum Forest Division	76	229.76	2561	70346	758020.00	0	758020.00
8	Garhwa	Divisional Forest Officer, Social Forestry Division, Garhwa	60	149.47	3752	19874	785283.14	0	785283.14
9	Giridih East	Divisional Forest Officer, Giridih East Forest Division	26	95.12	2200	21184	1056999.00	1056999	2113998.00
10	Giridih West	Divisional Forest Officer, Giridih West Forest Division	24	30.00	1085	10888	394254.00	0	394254.00
11	Godda	Divisional Forest Officer, Godda Forest Division	144	290.82	19013	32015	2559001.40	0	2559001.40
12	Gumla	Divisional Forest Officer, Social Forestry Division, Simdega	16	37.97	3518	1326	382383.89	0	382383.89
13	Hazaribag	Divisional Forest Officer, Social Forestry Division, Hazaribag	19	37.25	2926	6792	0.00	648522	648522.00
14	Jamtara	Divisional Forest Officer, Jamtara Forest Division	30	66.40	9400	25808	2165317.00	2139515	4304832.00
15	Khunti	Divisional Forest Officer, Khunti Forest Division	3	4.22	200	100	0.00	234654	234654.00
16	Koderma	Divisional Forest Officer, Social Forestry Division, Koderma	11	32.08	946	4245	0.00	219366	219366.00

Sl. No.	District	Name of Division	Bene-ficiaries	Rakba	Fruits	Timber	Adv. Approved Amount	Approved Amount	Total Payment
17	Latehar	Divisional Forest Officer, Social Forestry Division, Latehar	17	59.06	3438	4888	430624.00	179739	610363.00
18	Lohardaga	Divisional Forest Officer, Lohardaga Forest Division	7	19.97	3100	0	113027.00	0	113027.00
19	Pakur	Divisional Forest Officer, Pakur Forest Division	6	115.00	12371	13670	0.00	3503799	3503799.00
20	Palamu	Divisional Forest Officer, Medininagar Forest Division	25	110.63	1523	10752	379062.00	0	379062.00
21	Ramgarh	Divisional Forest Officer, Ramgarh Forest Division	23	72.58	5305	4093	578660.00	0	578660.00
22	Ranchi	Divisional Forest Officer, Social Forestry Division, Ranchi	37	80.41	5996	9382	518284.27	0	518284.27
23	Sahibganj	Divisional Forest Officer, Sahibganj Forest Division	64	338.20	51410	7518	5137846.00	3350527	8488373.00
24	Saraikela-Kharswan	Divisional Forest Officer, Saraikela Forest Division	38	138.17	2157	34260	323791.00	0	323791.00
25	Simdega	Divisional Forest Officer, Social Forestry Division, Simdega	55	105.45	7847	11345	1004380.05	0	1004380.05
26	West Singhbhum	Divisional Forest Officer, Social Forestry Division, West Singhbhum	49	114.46	4236	29525	301381.00	0	301381.00
Total			865	2444.39	155301	373429	19602411.73	12245704	31848115.73

Source: The Department of Forest, Government of Jharkhand

Compensatory Afforestation

The State Government is committed to compensate the loss of flow of forest products and ecosystem services because of diversion of forest lands for non-forestry developmental purposes. To this end, it has been utilizing the funds allocated by Government of India (Ad-hoc CAMPA) in the most judicious manner not only for compensating the loss of flow of forest products and ecosystem services from forest lands diverted to non-forestry use through raising compensatory afforestation but also to alleviate the resultant biotic and abiotic pressure that shifts to the remaining forests by improving the quality of those forests both by direct intervention and by building capacity of all sections of stakeholders including for increased people's stake in conservation and development of forests. The CAMPA is being revamped under the provisions of the Compensatory Afforestation Fund (CAF) Act, 2016 passed by the Parliament and the CAF Rules, 2018 notified and published with the approval of competent authority of Govt. of India, and the new decentralized process of fund flow provides greater control of the State Government over utilisation of CAMPA funds.

For better utilization of CAMPA funds, the following additional activities are being undertaken in 2018-19 on a priority basis:

- i. according highest priority to Compensatory Afforestation/ Penal Compensatory Afforestation in order to speed-up the clearing of a very large backlog; thus, an additional target of approx. 2,500 ha area, over and above the average rate of such plantation in the past few years, has been planned;

- ii. strengthening GIS cells in all six forest regional offices of the State for effective GIS-based planning and management through mobilization of trained manpower and procurement of necessary hardware;
- iii. enabling Joint Forest Management (JFM) institutions for effective management by initiating and scaling-up village-level micro-planning as provided in the JFM Resolution of the State; and
- iv. updating, strengthening and modernising the hitherto weak and deficient Forest Land Record Map and Database System for efficient forest land protection.
- v. The Department has also planned to take up forest mosaic landscape development to improve the flow of forest ecosystem services mainly to the adjoining smallholders' farms in order to enlist their effective participation in JFM, and to build capacity of JFM committee members, frontline staff, etc. for this purpose. It would improve natural resource endowment through community participation, enhance ecosystem resilience, deepen adaptation to Climate Change, and facilitate women empowerment.

Nadi Mahotsav and Vrihat Vrikchharopan Abhiyan

Lack of vegetation on the banks of rivers is leading to soil erosion and is affecting availability of water in the rivers. With a view to rejuvenate rivers of the State, around 8.00 lakh saplings were planted on the banks of 24 rivers in 24 district in a campaign mode that started on July 2, 2018 by celebrating *Nadi Mahotsavas*. Division wise achievement is as below :

Table 16.5 : Number of Plants planted

Sl. No.	Name of Division	Name of River	Length of River bank (Km)	Nos. of Plants
1	Ranchi Forest Division	Swarnrekha	15	90000
2	Gumla Forest Division	Kansh & Koyal	5	30000
3	Lohardaga Forest Division	Sankh	5	30000
4	Simdega Forest Division	Sankh & Palmada	3	18000
5	Medininagar Forest Division	North Koyal	5	30000
6	Latehar Forest Division	Oranga	5	30000
7	Garhwa North Forest Division	Danro	5	30000

Sl. No.	Name of Division	Name of River	Length of River bank (Km)	Nos. of Plants
8	Dumka Forest Division	Mayurakshi	5	30000
9	Pakur Forest Division	Bansloi	5	30000
10	Godda Forest Division	Geruwa	5	30000
11	Deoghar Forest Division	Ajay	8	48000
12	Jamtara Forest Division	Barakar	5	30000
13	Chaibasa Forest Division	Roro	2.92	17520
14	Saraikela Forest Division	Kharkai	5	30000
15	Jamshedpur Forest Division	Swarnrekha	17	102000
16	Chatra South Forest Division	Heruwa, Basa & Puren	5	30000
17	Hazaribag East Forest Division	Kheruwa	3	18000
18	Hazaribag West Forest Division	Kewat	5	30000
19	Ramgarh Forest Division	Swarnrekha	3	18000
20	Bokaro Forest Division	Garga	5	30000
21	Dhanbad Forest Division	Damodar & Barakar	10.69	64140
22	Giridih East Forest Division	Usri	7	42000
Total			134.61	807660

Source: The Department of Forest, Government of Jharkhand

Apart from the above, a total of 224.751 lakh saplings have also been planted all over state under different schemes of plantation/afforestation. High-Tech nurseries are being established to provide high quality planting material for both public and private land plantations. Nine such nurseries have been established under the centrally-sponsored scheme of Sub-Mission on Agro-forestry last year (2017-18), and six more are planned this year (2018-19). In addition, 12 seed production areas/ seed orchards are also planned this year (2018-19) to augment the availability of good quality seeds from Plus Trees of economically important species.

Biodiversity and Wildlife

Jharkhand is one of the richest states in terms of biodiversity. The Chotanagpur plateau is rich in both flora and fauna. For protection and conservation of these resources, the Central government has passed the Biological Diversity Act, 2002 (Central Act 18 of 2003). The State government has followed the protocol, and set up the Jharkhand Biodiversity Board. The vision of the Board is conservation of biodiversity, its sustainable

use and fair benefit sharing.

According to the Biological Diversity Act, 2002 (Section 41), every local body shall continue a Biodiversity Management Committee (BMC) within its area of jurisdiction. The main objective of BMCs is promoting, conservation, sustainable use and documentation of biological diversity. It includes preservation of habitats, conservation of land, folk varieties, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge related to biological diversity. A total of 3384 BMCs (3310 Gram Panchayat level, 66 Block level, 03 Zila Panchayat level and 05 Nagar Nigam/Parishad/Panchayat level BMCs) have been constituted in Jharkhand till November 2018

There is one national park and eleven wildlife sanctuaries in the state. The wildlife sanctuaries of the state are: Dalma, Lawalong, Hazaribagh, Mahuadand, Koderma, Palamau, Palkot, Parasnath, Topchanchi, Udhuwa Lake (for birds), and Gautam Budha. Betla is the only National Park of the State. These 12 Protected Areas (PAs) are devoted to in-situ conservation of

wildlife. They cover 1955.81sq km i.e., 2.45 percent of the state's total geographical area and 8.28 percent of the recorded forest area. In addition, there is one Biological Park (Zoo), at Chakla (Ormanjhi) and one Deer Park at Kalamati. A Vulture Conservation and Breeding Centre is being developed at Muta. All these three facilities are located near Ranchi and are devoted to ex-situ conservation of wildlife as well as for serving as centers for sensitizing people for conservation of wildlife resources of the State.

The State has been at the forefront of wild life conservation from the very beginning. The ambitious Project Tiger started in the State in 1973-74 for in-situ conservation of the Indian Tiger, and similarly the Project Elephant started in 1991-92 for conservation of viable population of wild Asiatic Elephants and their habitats. Under these conservation projects, special management units respectively of Palamau Tiger Reserve and the Singhbhum Elephant Reserve have been created.

Palamu Tiger Reserve

Palamau Tiger Reserve is located in the District of Latehar and Garhwa. The Project Tiger is spread over in 1129.93 sq. km., and is home for the large number endangered species and has proud privilege of being one of the original nine Tiger Reserve of India notified in 1974 at the time of launching of Project Tiger Scheme. In total documented species include 40 species of mammals (of which 11 are Schedule-I species), 205 species of birds 28 species of amphibians and reptiles. The diversity of arthropod is yet to be documented fully but 21 families of insects, 36 species of spiders are recorded. The animal diversity is very high. The recorded plant diversity includes 97 species of seed bearing plants, 49 species of shrubs and herbs, 30 species of climbers, semi parasitic and orchids and 18 species of grasses. The 114 species of Medicinal Plants recorded to be used by local tribes communities. The PTR area is also the home to the Dravidian tribes of India such as Korwa, Birjia, Nagesia and Parahia. It has been observed that about 25 thousand tourists visit PTR annually.

Singhbhum Elephant Reserve

The Singhbhum Elephant Reserve, the first Elephant Reserve of the country, was created in 2001 under the Project Elephant, comprising an area of 13,440 Sq. Km.

in East and West Singhbhum and Saraikela-Kharsawan Districts (old Singhbhum Districts) for scientific and planned management. It is aimed at conservation of Elephant habitats and viable population of wild Asiatic Elephants in Jharkhand, ecological restoration of their existing natural habitats and migratory routes, mitigating human-elephant conflicts in problem areas, moderating pressure of human and their live-stock on crucial elephant habitats, protection from poachers, etc.

Mineral Resources

The mineral resources provide the base for modern industries. The land of Jharkhand has been endowed with varieties of mineral resources ranging from ferrous to non-ferrous. The state owns about 40 percent of the total mineral resources of India. The state is rich in the deposition of both the major and minor mineral resources. The major mineral resources are like coal, iron ore, bauxite, limestone, copper, mica, graphite, china clay, and uranium. Jharkhand is the only producer of coking coal and uranium in the country. Apart from it, Jharkhand also has some minerals in small quantities like andalusite, apatite, asbestos, bentonite, baryte, chromite, dolomite, felspar, fireclay, fluorspar, magnetite, noble metals (Silver and Gold) ochre, pyrite, quartz, quartzite, steatite (soapstone) and several varieties of gemstones. The state is a leading producer of coal, mica, bauxite and so on. According to the Department of Mines and Geology, the state occupies the first position in coal reserves, the second position in iron, the third position in copper ore-reserve and the seventh position in bauxite reserves.

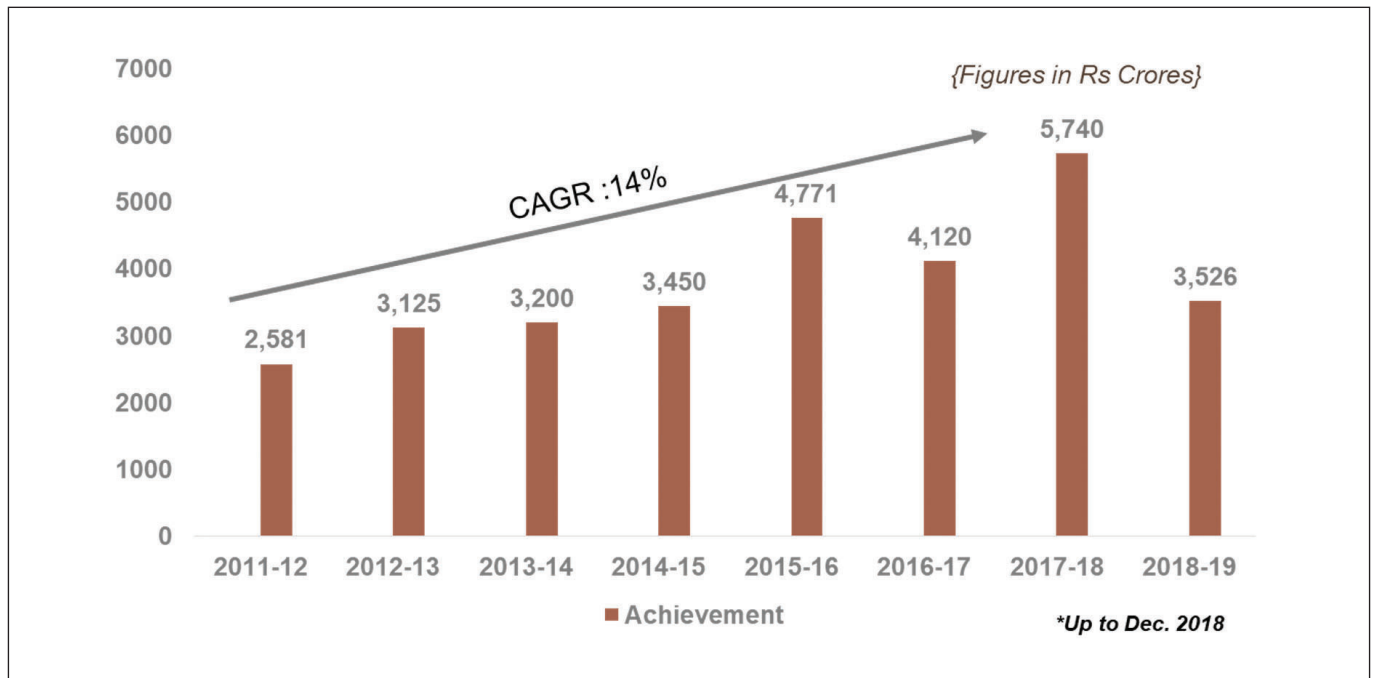
There are 370 mines of major minerals including coal and 3519 mines of minor minerals in the state. The mines are the major sources of the royalty in the state. . The district wise distribution of mines reflects that 109 mines of the major minerals are located in Dhanbad, that is the highest in the state followed by West Singhbhum (77). Simdega, Sahebganj, Koderma and Dumka do not have major mines. The highest number of mines of the minor minerals is located in Sahebganj (406) followed by Ranchi (277).

The mineral revenue collection for Jharkhand has grown at a CAGR of 14% in the last 6 years i.e. from Rs 2581 cr in 2011 -12 to Rs 5740 cr in 2017-18. The mineral-revenue has almost increased by 80% during the last 4 years i.e. from the revenue of Rs. 3200 cr. in 2013-

14 to Rs 5740 cr. in 2017-18. During the year 2018-19, upto Dec. '18 the mineral-revenue-collection is Rs 3526.42 cr, reflecting a growth of 17.3% compared to

the mineral-revenue-collection of Rs 3005.07 cr upto Dec. '17 in 2017-18

Table 16.2 : Mineral Revenue Collection in the State



Mineral Revenue Collections for Jharkhand (2011-'12 to 2018-'19)

Table 16.7 : District wise Mineral Revenue Collection (upto Dec. '18 in 2018-'19)

Sl. No.	Names of Districts	Mineral Revenue Collection (Rs. Cr)
1	Dhanbad	855.95
2	Bokaro	236.01
3	Giridih	12.33
4	Hazaribagh	139.98
5	Ramgarh	444.89
6	Chatra	284.43
7	Koderma	5.39
8	Palamu	146.22
9	Latehar	24.11
10	Garhwa	10.19
11	Ranchi	35.80
12	Khunti	12.77
13	Lohardaga	12.78

Sl. No.	Names of Districts	Mineral Revenue Collection (Rs. Cr)
14	Gumla	25.31
15	Simdega	11.00
16	Jamshedpur	54.75
17	Chaibasa	834.27
18	Saraikela	12.49
19	Jamtara	3.63
20	Dumka	20.20
21	Godda	220.33
22	Pakur	38.24
23	Sahebganj	31.31
24	Deoghar	54.05
Total		3526.42

Source: The Department of Mines and Geology, Government of Jharkhand

Out of the 24 districts of Jharkhand, 10 districts have contributed 93% revenue to the state i.e. Rs 3270.88 cr for 2018-19. Dhanbad is the highest mineral revenue collecting district with Rs 855.95 cr upto Dec. '18 during 2018-'19, followed by Chaibasa, Ramgarh, Chatra, Bokaro, Godda, Koderma, Hazaribagh, Jamshepur and Deoghar.

Jharkhand has 82,439.52 million tonnes of coal reserves. Out of these, 44,340.59 million tonnes are proved whereas the indicated reserves are 31,876.4 million tonnes and the inferred reserves are 6,222.53 million tonnes. The highest quantity of the proved coal resources

are found in Jharia-Bokaro and Dhanbad followed by the North Karnpura- Ranchi, Ramgadh, Hazaribagh, Chatra, Latehar. The highest quantity of indicated coal reserves are in the Rajmahal - Pakur, Dumka and Godda coal fields. The highest quantity of the inferred coal resources are in the North Karnpura- Ranchi, Ramgarh, Hazaribagh, Chatra and the Latehar coal fields followed by the Rajmahal - Pakur, Dumka and Godda. The highest quantity of the proved coal resources are in the Jharia-Bokaro, Dhanbad coal fields (19430.06) followed by the North Karnpura- Ranchi, Ramgarh, Hazaribagh, Chatra And the Latehar coal fields (18485.32 tonnes)

Table 16.8 Status of Coal Resources of Jharkhand (in Million tonnes) (as on 30.09.2017)

Coal Field/District	Proved	Indicated	Inferred	Total
Ranigunj- Dhanbad	153 8.19	466.56	31.55	2036.3
Jharia- Bokaro, Dhanbad	15127.97	4302.09	0	19430.06
East Bokaro- Giridih, Bokaro, Hazaribagh	3497.43	3922.8	863.32	8283.55
West Bokaro- Ramgarh, Hazaribagh	3761.25	1308.71	33.66	5103.62
Ramgarh- Ramgarh, Hazaribagh	756.11	742.08	58.05	1556.24
North Karnpura- Ranchi, Ramgarh, Hazaribagh, Chatra, Latehar	10319.44	6300.92	1864.96	18485.32
South Karnpura, Hazaribagh, Ramgarh	5176.08	1312.28	1143.28	7631.64
Aranga- Palamau, Garhwa, Latehar	352.05	2141.65	503.41	2997.11
Hutar- Palamau, Latehar	190.79	26.55	32.48	249.82
Daltonganj- Palamau, Latehar, Garhwa	83.86	60.1	0	143.96
Deogarh- Deoghar	326.24	73.6	0	399.84
Rajmahal- Pakur, Dumka, Godda	3211.18	112119.1	1691.82	16122.06
Total	44340.59	31876.4	6222.53	82439.52

Source: The Department of Mines and Geology, Government of Jharkhand

The energy resources are the lifelines of an economy. In modern times, development is not possible without it. It has been mentioned earlier that huge coal resources are found in Jharkhand. According to the Energy Statistics 2018, the state of Jharkhand has the maximum share (26.16%) in the overall reserves of coal in the country as per the data available on the 31st of march, 2017, followed by the state of Odisha (24.52%). The potential of renewable energy in the state reflects that Jharkhand has 18,525 estimated reserves of renewable energy that is 1.85 per cent of the total energy of the country. Out

of 18525 MW, 228 MW capacity is that of the small hydropower 107 MW of biomass power, 10 MW of waste to energy and 18180 MW of solar energy.

During 2016 - 17 the installed capacity of the small hydropower was 4.05 MW. The installed capacity of the solar power was 16.19 MW in 2016, which increased to 23.27MW in 2017. Around 7.8 MW growth has been reported in one year in solar energy. Overall 35.1 per cent growth has been reported during 2015-16 to 2016-17 in the renewable energy sector of the state.

Table 16.9 : State wise and Source Installed wise Capacity of Grid Interactive Renewable Power as on 31.03.2016 and 30.03.2017 (in MW)

State	Small Hydro Power		Solar Power		Total		Growth* Rate (From 2015-16 to 2016-2017)
	31.03.16	31.03.17	31.03.16	31.03.17	31.03.16	31.03.17	
Jharkhand	4.05	4.05	16.19	23.27	20.24	27.32	35.01

Source: *The Energy Statistics 2018, Central Statistics Office Ministry of Statistics and Programme Implementation, Government of India*

New Initiatives and Programme

- The District Survey Report (DSR) shall be prepared for each district for all minor minerals as per the guidelines of Sustainable Sand Mining. The DSR shall provide the data-bank including the availability of minor mineral resources in every district of the state. A DSR has all the information such as coordinates, quality and quantity of the minerals, areas having the potential for mining, the status of land and other natural and man made information of the deposits. The DSR for Sand has already been completed for all the districts. The state is also in the process of the preparation and implementation of the DSR for other minor minerals.
- Jharkhand is also finalizing the Mineral Policy, and one of the objectives of the policy is to use the mineral resources in a sustainable manner. It has given emphasis on the protection of the forest, environment and ecology too. It will focus on the utilization of the mine wastes and also promote the concept of zero-waste mining. It focuses on the minimization of the negative impact on the environment. Under this policy, the Mining Plans and Mine Closure Plans will be dovetailed and harmonized for sustainable development. Local communities including the Panchayats, NGOs, etc. will be closely associated with the process of preparation of the Mine Closure Plans. It will be ensured that such plans include an adequate provision for the long-term sustainability of host populations and for the best possible use of the mined-out areas based on the needs of the local communities.

There is also provision under this policy to prevent the displacement of the host population

due to the mining-related activities and to make available an accessible platform for the registration and redressal of the grievances of the displaced communities, providing assistance/ housing, relocation help, maintenance allowance, etc.

- Jharkhand Integrated Mines and Management System (JIMMS): The JIMMS portal, a comprehensive information-technology based e-Governance solution has been deployed across the state for the smooth and transparent management of mining activities. The system is designed to automate the processes and also the capability to share the data in real time with multiple entities such as ports, railways, and commercial tax.

The JIMMS includes online issue and permit of e-permit, e-challan/ transit challan and its integration with weigh bridges. It also allows the uploading of all statutory documents like CTE/ CTO, EC, FC, maps online. Online registration, processing and disposal of application for dealer license has been implemented through JIMMS against earlier paper based system.

- To curb illegal mining, transportation and the storage of minerals, the government of Jharkhand introduced The Jharkhand Mineral (Prevention of Illegal Mining Transportation and Storage) Rule 2017 with the following salient features:
 - ❖ GPS/ RFID or any other vehicle tracking system. RFP for the selection of “System Integrator for GPS based tracking of mineral carrying vehicles” is in the final stage of preparation.
 - ❖ Provision for check gate/ weigh bridge has

- been introduced for the verification of the quantity moved.
- ❖ Automatic de-activation of dealers which have been non-operative for 2 years. Provision for application for re-activation.
 - ❖ Timelines for the various procedures such as registration and the processing of application have been clearly defined in the rules.
- Some of the other technological-enablement assignments which are being undertaken are as follows:
 - ❖ The department is in the process of finalizing the System Integrator and the Vehicle tracking devices for GPS based tracking of Mineral carrying vehicles, which will help to curb illegal mining and hence, arrest revenue leakage.
 - ❖ The department is also in the process of implementing Mine Tenement System (MTS) along with JSAC for the entire Life Cycle Management of a Mine from exploration to closure. This will result in the reduction of efficient lease-management processes for the mine owners including faster grant of leases.
 - ❖ The department will be implementing satellite based Mines Surveillance System (MSS) for the minor minerals, in line with the major minerals to curb illegal mining outside of lease boundary areas.
 - ❖ The integration of JIMMS is going on with a number of other applications such as FOIS, Coal-Net, Aadhar, Pan Card, Transport and Pollution Board for the improved mineral management.
 - ❖ Satellite based “Khan Prahari System” for monitoring illegal mining/ theft of coal
 - ❖ Mandatory online dealer license is implemented.
 - District Mineral Foundation Trust: For the development of the affected people and the areas due to mining, the government of Jharkhand has issued notification for the constitution of District Mineral Foundation Trust (DMF) in each district of Jharkhand on the 24 of November 2015 along with the details of the Governing Council and Management Committees (Gazette No. 854 dated 07 December 2015). The DMF was constituted in accordance with Section 9B, MMDR Amendment Act 2015. All the expenses of the DMFS will be as per the guidelines of Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) notified on September 16, 2015. Further, Jharkhand District Mineral Foundation (Trust) Rules, 2016, was notified on March 22, 2016 (Gazette No. 218 dated 23 Mar 2016). The DMFT rules were also extended for the minor minerals on January 13, 2017. (Gazette No 109 dated 27 Jan 2017)
- As at the end of November 2018, the total contribution to DMFT is Rs 3426.7 cr and total collection during the 2018-19 till the end of November 2018 is Rs.764.10 cr. The top 6 districts out of 24 districts contributed 87.7% of the total DMFT contribution with Dhanbad being the highest contributor of Rs 858.3 cr.
- The total DMF spent is Rs 750.83 cr till the end of November 2018 whereas the top 2 schemes, i.e. Drinking Water and Sanitation account for about 95% of the total DMFT amount spent. Dhanbad and Ramgarh are the two leading districts accounting for 73% of the total DMFT fund utilized.
- Auction of Major Mineral Blocks: Post amendment of Mines and Mineral (Development and Conservation) Rules 1957 and the implementation of the Mineral (Auction) Rules 2015, Jharkhand was the first state to conduct a successful auction of non-coal block in the country
- The Jharkhand government has conducted 6 successful auctions and more blocks are under the process of auction, with the most recent being Lesliganj Graphite and Bhangaon Iron Ore during 2018-'19, achieving the final price offer of 75% and 89% respectively of the values of mineral dispatched.
- Auction of Minor Mineral Blocks: To ensure a transparent and fair allocation of the minor mineral blocks, the government of Jharkhand adopted

auction-methodology for the grant of mining leases for the minor mineral blocks. Accordingly, Jharkhand Minor Mineral Concession Rules 2004 were amended to introduce auction for the grant of minor mineral concession. Jharkhand Minor Mineral Auction Rule 2017 and Jharkhand Minor Minerals (Evidence of Contents) Rules 2018 were formulated for the implementation of the auction-process for minor mineral blocks.

Presently, a number of minor mineral blocks of stones are already under the auction- process.

Water Resources of Jharkhand

Water is the most precious resource on earth. Life revolves around water and there are varieties of usage of water resources ranging from drinking water, irrigation, industries, navigation, to the generation of electricity, and maintenance of the ecosystem etc. But, due to the high population growth, the demand for water resources is increasing day by day for crop production, domestic use and so on. For the use of water resources in sustainable manner and for its proper management, the government of Jharkhand has set of the department of water resources. The primary objective of the department is the construction and maintenance of major, medium and

minor irrigation schemes, measures for flood protection and control, ground water conservation and recharge providing industrial water. It also protects the right of the state in sharing the water of the interstate rivers/ river basins. It also 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.

According to the department of water resources, almost 1.59 lakh hectares area of the state are covered by water bodies that is, 2 percent of the total geographical area of the state. There is around 30,168.98 million cubic meter water available in Jharkhand, out of which 25,876 million cubic meter is available in the form of surface water and 4,292 million cubic meter is available in the form of ground water. There is evidence that the availability of the ground and surface water is decreasing over a period of time. In such conditions the proper management of water resource is needed. In Jharkhand, almost 4,338 M.C.M. water is required for the industries followed by 3,813.17 M.C.M. for irrigation, and 1,616.35 lakh gallons required in the urban areas. The highest demand for water is required in the industrial sector. There is a huge deficiency of water (882 lakh gallons) in the urban areas of the state.

16.10 : Present Scenario of Ground Water and Surface Water in Jharkhand

1. Ground Water Reserve of Jharkhand	4292 M.C.M.
2. Surface Water	25876.98 M.C.M.
3. Allocation for irrigation required by fields	3813.17 M.C.M.
4. Industrial Requirement	4338 M.C.M.
5. Urban area requirement	1616.35 lakh gallons
6. Availability in the urban areas	734.35 lakh gallons
Total	40670.85

Source: The Department of Water Resource, Government of Jharkhand

The utilization-pattern of the surface water reflects the fact that despite a high demand in the industrial sector the utilization of surface water is the highest in the irrigation area(41 percent) followed by industry and

drinking water (20 percent) . Around 12 percent surface water is transferred to other river basins and 27 per cent utilized in the river releases.

Table 16.11 : Utilization of Surface Water Resources in Jharkhand

Utilisation of Surface Water	Per cent
Irrigation	41
Industry and Drinking Water	20
Transfer to other Basins	12
River Releases	27

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

Almost 461 thousand hectares are the ultimate irrigation potential that lie in the major irrigation projects in the state and 98.78 thousand hectares in the minor irrigation projects. In the major projects, the Subarnarekha river basin has the highest potential, that is 265 thousand hectares followed by the Ajay (64.44 thousand hectare)

and Damodar river basins (62.79 thousand hectare) in the state. In the case of the minor irrigation projects the ultimate irrigation potential is the highest in the South Koel River (29.46 thousand hectares) followed by the Kharkai river sub-basin (19.55 thousand hectares.).

Table 16.12 : Ultimate Irrigation Potential in the Rivers of Jharkhand

Names of the Projects		Ultimate Irrigation Potential (in th. ha.)	District
Major Irrigation Projects	Subarnarekha River Basin	265	East Singhbhum, West Singhbhum, Saraikela - Kharsawan
	Ajay River Basin	64.44	Deoghar/Jamtara
	Gumani And Koa - Bhenas Basin	16.19	Sahebganj/Pakur
	North Koel River Basin	44.74	Palamau
	Damodar River Basin	62.79	Giridih
	Ganga Stem Basin	8.6	Godda
	Sub Total	461.76	
Minor Irrigation Projects	South Koel River Basin	29.46	Gumla, Ranchi, Lohardga, Simdega, West Singhbhum
	Subarnarekha River Basin	8.27	Ranchi, Khunti
	Kharkai River Sub-Basin	19.55	Saraikela-Kharsawan, West Singhbhum
	Damodar River Basin	4.8	Chatra, Hazaribagh
	Barakar River Sub-Basin	9.3	Hazaribagh/ Koderma
	Punpun River Basin	1.6	
	Mayurakashi River Basin	8	Godda
	Sankh River Basin	17.72	Gumla/ Simdega
	Sub Total	98.78	
Total	560.54	Jharkhand	

Source: The Department of Water Resource, Government of Jharkhand

Jharkhand has a total agricultural land of 29.74 lakh hectares. There is need to create irrigation facilities for 24.25 lakh hectares of land. According to the second Bihar Irrigation Commission Report 1994, around 12.765 lakh hectares irrigation potential have to be created though the Major and Medium Irrigation Projects and till now 11.485 lakh hectares of the irrigation potential have to be created through the Minor Irrigation Schemes and other sources. At the end of the 12th five year plan that is 2017, 1535.72 thousand hectares of the cultivable area of the state have come under the irrigated land, that is 63.32 per cent of the targeted areas. It is a remarkable achievement of the state government. The irrigation potential to be created through major and medium projects is estimated to be 512.98 thousand hectares and 247 thousand hectares are expected to be created through the minor schemes.

Flood Control Programme

The department of water resource is also engaged in the flood control programme of the state. The focus area is anti-erosion work in the Ganga basin during floods, that is also shared by the central government. During the 12th five year plan, Rs. 40 crores were allocated for this. During the annual plan 2012-13 Rs. 4 crores were allocated for this scheme. Apart from this, the state is also running both ongoing flood control programmes and also planning new ones. In the 12th five year plan period, Rs. 8 crores have been allocated for the ongoing flood control scheme and Rs. 77 crores for the new schemes.

State Links and the Present Status / Targets for the Completion of Pre Feasibility Test (PFRs)

The department of the water resources also works on interlinking the rivers projects. At present, three interlinking projects have been proposed in the state. The details have been given below:

1. Inter Basin Transfer of Water from the South Koel Basin to the Subernarekha Basin

The scheme is based on the transfer of unused 1281 MCM of water available at the Manoharpur Block of South Koel Basin into the Subernarekha Basin through the Tajna river to Chandil Dam via the Kharkai river. The second identified site for the transfer of water from the South Koel Basin has been proposed through the Tajna River at

d/s of Murmu site into the Kharkai River via the river Sanjay.

2. Inter Basin Transfer of Water from the Damodar – Barakar river Basin to the Subernarekha Basin

The scheme is based on the transfer of surplus from the Barakar River by the Balpahari dam. Almost 493.4 MCM water of the Damodar Basin had to be transferred into the Subernarekha Basin by establishing a proposed link connecting Balpahari site of the Barakar river near Tundi to the Subernarekha river at Muri and also connecting the Damodar river near Bermo.

3. Inter Basin Transfer of water from Sankh Basin to South Koel Basin.

The scheme is based on the transfer of 403 MCM of water from the Sankh Basin to the South Koel Basin near Gumla. This water may also be transferred through the same inter river links as proposed for the South Koel Basin water into the Subernarekha Basin.

Interstate Issues

The department of water resources government of Jharkhand also works on the inter-state transfer of water resource by river. There are issues between the states on this regard, for instance, the management, construction, operation and maintenance and sharing of costs and benefits with the other states. Currently, there are three inter-state water-sharing projects.

1. **North Koel Reservoir Project:** The governments of Bihar and Jharkhand have agreed on the common components of the North Koel Reservoir Project. The project has two components (a) A dam across the river North Koel near Kutku and (b) is a Pick-up Barrage near Mohammadganj in Palamau .
2. **Batane Reservoir Project :** Two-tier committee has been set up for the guidance on the works of the common components of the Batane Reservoir project. The water of the reservoir shall be shared by Bihar and Jharkhand. The common components of the project shall be constructed by the government of Jharkhand as a deposit work and its cost will be shared between the two States in proportion to the irrigation benefits as per the

DPR to be derived by them for this project.

New Initiatives for the Development of Surface Water

Increasing the net irrigated area: Since , the productivity of crops seriously depends on irrigation; the state has planned to increase the Irrigation Potential Utilized by 59 per cent from the current 5.02 lakh hac. to 8 lakh hac. by 2020-21. This will be achieved through the effective implementation of the Pradhan Mantri Krishi Sinchai Yojana, in restoring and renovating the existing water reservoirs, distribution systems and water management measures which focus on increasing the areas under micro-irrigation to enhance the efficiency of the usage of water.

To increase the productivity of crops and bringing in more fallow land under cultivation, the state is committed to increase the net irrigated areas. To ensure the national vision of *har khet ko pani*, the state will provide water-assurance through the completion of ongoing minor, medium and long-term irrigation projects

- Increase the area under micro irrigation through the effective implementation of PMKSY
- Construct rain water harvesting structures like farm /pond/ dobha and farm bund in all the villages
- Renovate 102 old major & medium irrigation schemes and nearly 1800 surface medium irrigation schemes by 2020-21 and ensure restoration of lost irrigation potential to the tune of 1.36 lakh hectare in major & medium irrigation sectors.
- Conduct a feasibility-study for the Damodar-Subernarekha link and the Subernarekha-Mahanadi link by 2018 with assistance from the government of India
- Start construction work for the Barakar-Damodar-Subernarekha project during 2017-18 to 2019-20 through assistance from the government of India which will provide 207 MCM for irrigation
- Construct piped lift irrigation scheme on the Sone river and the Command area of the Sone lift scheme will be Garhwa, Palamau and Latehar (Dry districts)
- Construct 1000 lift irrigation schemes (of Rural

Development department)

- Implement Neranchal National Watershed to increase the irrigation potential. Soil and water conservation by “Ridge to Valley approach” under the watershed schemes
- Implement the Tilka Manjhi Agriculture Pump Scheme to make available free-of-cost electricity to the small and marginal farmers for irrigation purposes
- Distribute solar pumps to the farmers of the non-electrified areas on 90 per cent subsidy basis to promote green energy consumption in agriculture
- Create awareness about the importance of drip and sprinkler irrigation.

Ground Water:-

Pre-Monsoon and Post Monsoon Water Level Measurement of 510 hydrograph stations have been fixed in the state by the Ground Water Directorate to monitor the depth of the ground water-level in the pre-monsoon as well as in the post-monsoon period. With the help of this data, the ground water balance is calculated block-wise. The main purpose of monitoring the water before and after the monsoon is to see whether the groundwater level is going down or maintaining its level. If it is going down, it shows that it has happened either because of an excess of withdrawal or less recharge by rainfall. In such conditions, the directorate publicises the artificial groundwater recharge and rainwater harvesting in the rural and urban areas of the state.

According to Central Ground Water Board, the contribution in the annual replenishable ground Water Resource (2013) from rainfall during the monsoon season was 85.45 per cent and 11.14 per cent from the non-monsoonal and remaining 3.43 per cent by the other sources like recharge as the return seepage irrigation and from water harvesting structures in Jharkhand. The ground water resources have been assessed block-wise. The annual replenishable groundwater resource of the state has been estimated as 6.56 bcm, and the net annual ground water availability is 5.99 bcm. The annual groundwater draft is 1.35 bcm and the stage of ground water development is 23 per cent. Out of 260 blocks, 4 have been categorized as ‘Over-exploited’, 2 as ‘Critical’, 10 as ‘Semi-Critical’, and 244 as ‘Safe’ and

there is no saline block in the state. As compared to the 2011 assessment, the annual replenishable groundwater resource, and net groundwater availability have increased from 6.31 bcm to 6.56 bcm and 5.76 bcm to 5.99 bcm respectively (2013). The annual groundwater draft for the state has decreased from 1.86 bcm to 1.35 bcm, and the stage of groundwater development has decreased from 32% to 23%. The change in groundwater draft is mainly due to the refinement of a number of abstraction structures.

The groundwater is recharged by the different sources like recharge from rainfall from other sources in the monsoon and the non-monsoon seasons and other sources. The district-wise data reflects that the highest annual groundwater recharged is in Gumla (51790ham) followed by Giridih (46454 ham) and then Ranchi (43915 ham). The lowest groundwater recharged are in the Koderma (9718.65 ham) and Jamtara (11479 ham) districts of the state. The groundwater recharged from

the monsoonal rainfall was the highest in the Gumla (42355 ham) district followed by Giridih (41502 ham) and Ranchi (36157 ham). It is the lowest in Koderma (8563 ham) and Ramgarh (9342ham). The water recharged from other sources in the monsoonal seasons was the highest in Dhanbad (1739 ham) followed by Ramgarh (529ham), and it was the lowest in Saraikela Kharsawan (41.86 ham) followed by West Singhbhum (35.64 ham). Around 8264 ham groundwater in the Gumla district is recharged by the non-monsoonal rainfall that was the highest in the state in 2013 followed by Ranchi (6041 ham). The lowest recharge took place in the Koderma (786ham) and Jamtara (921) districts of the state. The highest groundwater recharge in the non-monsoon season from sources other than rainfall took place in Dhanbad (2301 ham) followed by the Chatra (1640 ham) district of the state. The lowest recharge by this method took place in West Singhbhum (123ham) and Saraikela-Kharsawan (157ham).

16.13 : District-wise Annual Replenishable Ground Water Resource in 2013

District	Monsoon Season		Non-Monsoonal Season		Total Annual ground Water Recharge
	Recharge from Rainfall	Recharge from other Sources	Recharge from Rainfall	Recharge from other Sources	
Bokaro	23033.61	475.88	2325.32	898.61	26733.42
Chatra	28610.09	496.15	2540.35	1640.19	33286.78
Deoghar	19926.15	158.65	2346.91	531.17	22962.88
Dhanbad	16128.37	1739.4	1761.93	2301.36	21931.06
Dumka	27924.48	391.56	3058.53	1550.19	32924.76
EastSinghbhum	28503.59	87.93	3934.6	343.99	32870.11
Garhwa	30034.94	92.52	1427.38	346.81	31901.65
Giridih	41502.81	174.01	4190.74	587.42	46454.98
Godda	21479.69	128.34	3431.87	360.92	25400.82
Gumla	42355.94	237.7	8263.99	933.27	51790.9
Hazaribagh	31664.94	153.6	4894.67	310.15	37023.36
Jamtara	10023.11	108.2	921.02	426.85	11479.18
Khunti	13954.06	145.1	2400.76	568.5	17068.42
Koderma	8563.23	74.21	785.75	295.46	9718.65
Latehar	19745.68	147.21	3496.32	516.69	23905.9
Lohardaga	17069.5	65.69	2740.37	253.8	20129.36
Pakur	11393.35	69.17	2730.41	268.01	14460.94

District	Monsoon Season		Non-Monsoonal Season		Total Annual ground Water Recharge
	Recharge from Rainfall	Recharge from other Sources	Recharge from Rainfall	Recharge from other Sources	
Palamau	32472.24	259.01	2526.07	972.7	36230.02
Ramgarh	9342.66	529.18	1135.12	783.81	11790.77
Ranchi	36157.48	395.36	6041.71	1321.18	43915.73
Sahebganj	22760.58	81.3	2846.52	312.93	26001.33
Saraikela-Kharsawan	12405.86	41.86	1118.43	157.64	13723.79
Simdega	27209.61	109.12	4375.94	422.64	32117.31
West Singhbhum	28338.38	35.64	3774.44	123.53	32271.99
Total (ham)	560600	6196.8	73069.15	16228	656094
Total (bcm)	5.61	0.06	0.73	0.16	6.56

Source: *Dynamic Ground Water Resources of India, Central Ground Water Board Ministry of Water Resources, River Development & Ganga Rejuvenation GOI, 2017*

The natural discharge of groundwater in the non-monsoonal season was 56,942 ham in the state. The district-wise data reflects that it was the highest in the Gumla district (4423 ham) followed by Giridih (4123 ham) and Ranchi (3601 ham) respectively. The net

annual groundwater availability in the state was 599152 ham in 2013. Among the districts, it was the highest in Gumla (47368 ham) followed by Giridih (42332 ham) and Ranchi (40314 ham) respectively.

16.14 : District-wise Availability of Ground Water in Jharkhand in 2013

Names of Districts	Natural Discharge During non-monsoonal Season	Net Annual ground Water Availability
Bokaro	2014.94	24718.48
Chatra	2902.66	30384.12
Deoghar	2296.29	20666.59
Dhanbad	1960.68	19970.38
Dumka	2770.44	30154.32
EastSinghbhum	3287.01	29583.1
Garhwa	2963.32	28938.33
Giridih	4123.13	42331.85
Godda	2427.08	22973.74
Gumla	4423.19	47367.71
Hazaribagh	2798.58	34224.78
Jamtara	751.44	10727.74
Khunti	1206.48	15861.94
Koderma	782.69	8935.96
Latehar	1577.79	22328.11

Names of Districts	Natural Discharge During non-monsoonal Season	Net Annual ground Water Availability
Lohardaga	1852.27	18277.09
Pakur	1355.97	13104.97
Palamau	3095.94	33134.08
Ramgarh	1128.96	10661.81
Ranchi	3601.51	40314.22
Sahebganj	2408.84	23592.49
Saraikela-Kharsawan	1372.38	12351.41
Simdega	2793.29	29324.02
West Singhbhum	3047.25	29224.74
Total (ham)	56942	599152
Total (bcm)	0.57	5.99

Source: *Dynamic Ground Water Resources of India, Central Ground Water Board Ministry of Water Resources, River Development & Ganga Rejuvenation GOI, 2017*

Conclusion

The state of Jharkhand is rich in the forest resources and forest cover has improved in the state due to the efforts made by the government. More than one-fourth of its land is covered by forests but to keep it an integral part of the state government, the government of Jharkhand is running various schemes and programmes, likes, for the conservation of the forests of the state, the government has initiated Mukhyamantri *Jan Van Yojana*, Compensatory Forest schemes, Nandi Mahotsav and Vrihat Vrikchharopan Abhiyan. Mukhyamantri *Jan Van Yojana* provides livelihood-security to the people through forestry. In Nandi Mahotsav and Vrihat Vrikchharopan Abhiyan, 9 lakh plants, have been planted in 2018.

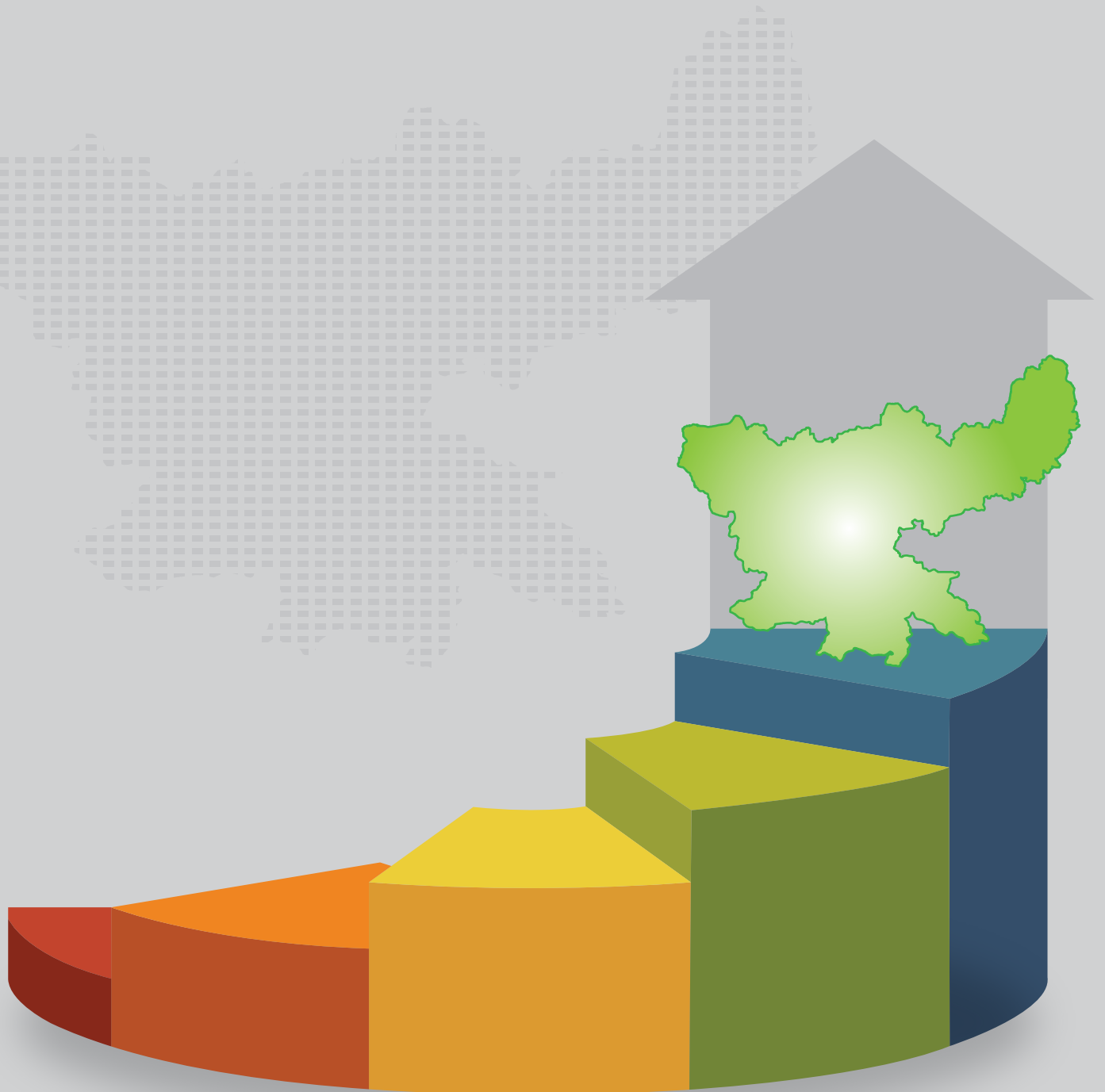
Mines play a crucial role for Jharkhand as Jharkhand has been bestowed with a number of minerals and it is the state's duty to use it to its full potential and also use it sustainably for the use of future generations too. There are 380 major mines and 3270 minor mines in

the state. The mines are the major sources of royalty in the state. Currently, around Rs. 10,515.35 crore royalty comes from the major and minor mines of the state. The government has formulated the mineral policy 2017 for the better use of the mineral resources.

The state has a total agricultural land of 29.74 lakh hectares. There is need to create irrigation facilities for 24.25 lakh hectares of land. At the end of the 12th five-year plan (2017), 1535.72 thousand hectares cultivable area of the state have come under the irrigated land, that is, 63.32 per cent of the targeted area. It is a remarkable achievement of the state government. The irrigation potential to be created through the major and medium projects is 512.98 thousand hectares and 247 thousand hectares of the irrigation potential has to be created through minor schemes. As compared to the 2011 assessment, the annual replenishable groundwater resource, and net groundwater availability have increased from 6.31 bcm to 6.56 bcm and from 5.76 bcm to 5.99 bcm respectively (2013).

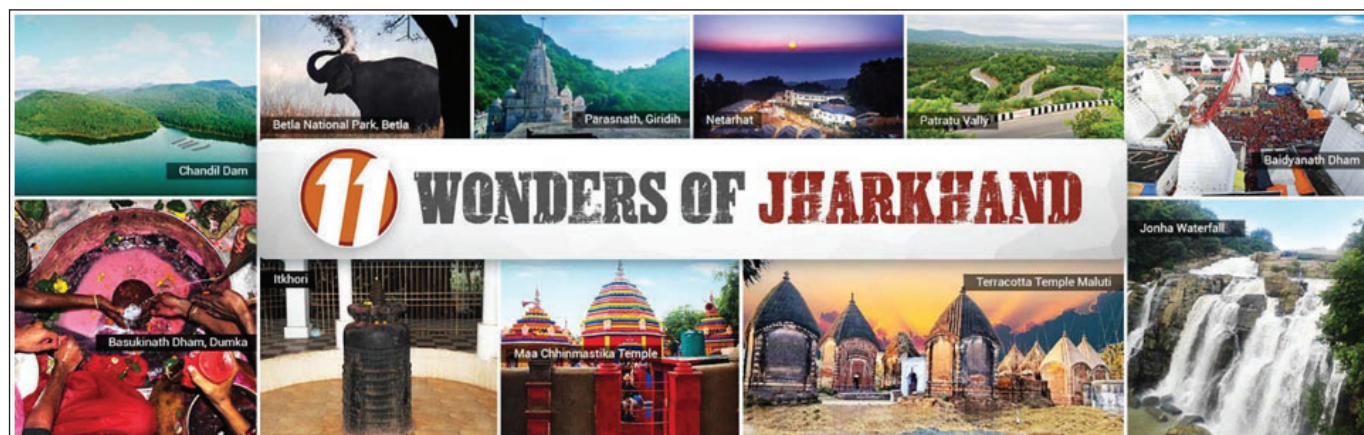
XVII

**TOURISM, ARTS,
CULTURE, SPORTS
AND YOUTH AFFAIRS**



The variety of traditions, cultures and tourist destinations makes it an opportune place for attracting tourists not just from within the country but also from abroad. The art and craft of the state is characterized by its various tribal as well as non-tribal communities. The

various pilgrimage sites, national park, waterfalls, wild life sanctuaries, dams etc make it the perfect tourist destination for a-close-to-nature holiday that one is seeking.



The tourism statistics indicate that there has been a positive change in the statistics for Jharkhand. The number of national as well as international tourists have increased over a period of time.

Table 17.1: Year-Wise Tourist Inflow in Jharkhand

Year	National	International
2011	1,45,80,387	87,521
2012	2,16,26,754	1,21,960
2013	3,24,77,676	1,33,664
2014	3,34,27,144	1,54,731
2015	3,31,79,530	81,880
2016	3,33,89,286	1,69,442
2017	3,37,23,185	1,70,987

Source: The Department of Tourism, GoJ

The table below also shows the month wise tourist inflow in the state. The highest inflow for both domestic as well as foreign tourists is during the month of August.

Table 17.2: Monthly Tourism Statistics for the year 2017

Month	Domestic Tourists (No.)	Foreign Tourists (No.)
January	33,91,046	19,876
February	33,94,576	17,493
March	19,77,893	12,129
April	20,71,064	14,737
May	22,67,522	17,227

Month	Domestic Tourists (No.)	Foreign Tourists (No.)
June	22,17,379	4,108
July	40,09,480	13,258
August	56,60,980	18,625
September	24,89,593	14,726
October	13,15,352	14,747
November	21,53,788	10,217
December	27,74,512	13,844

Source: The Department of Tourism, GoJ

New Schemes taken up during the past year

Development of Eco Tourism Circuit in Jharkhand - Swadesh Darshan Scheme of Ministry of Tourism, GoI

- a) Providing tourism infrastructure facilities to enhance the tourism experience for the visitors/ tourists, in accordance with the Swadesh Darshan Scheme Guidelines published by MoT, GoI
- b) Tourism Infrastructure Development in the following eco-tourism destinations in Jharkhand:
 - Dalma
 - Chandil
 - Getalsud
 - Betla
 - Mirchaiya
 - Netarhat

Development of Deoghar under PRASAD scheme in Jharkhand

Pilgrimage Rejuvenation And Spiritual Augmentation Drive (PRASAD) Scheme of Ministry of Tourism, GoI

Providing tourism infrastructure facilities to enhance the experience of tourism for visitors/ pilgrims, in accordance with the PRASAD Scheme Guidelines published by MoT, GoI

The development of Rajrappa Temple Precinct

Development of basic infrastructure, riverfront area and provision for pilgrim amenities at MaaChinnamastika Temple surroundings.

Development of Basukinath in Jharkhand under Phase II of PRASAD Scheme

Providing tourism infrastructure facilities to enhance the tourism experience for visitors/ pilgrims, in accordance with the PRASAD Scheme Guidelines published by MoT, GoI

Development of Rural Tourism Circuit in Jharkhand

Providing tourism infrastructure facilities to enhance the tourism experience for visitors/ tourists, in accordance with the Swadesh Darshan Scheme Guidelines published by MoT, GoI

Development of Patratu as Mega Tourist Destination

Development of Parasnath Hill

The development of infrastructure facilities for the pilgrims climbing the hill on foot and increase the footfall to attract more tourists and provide amenities & facilities

Development of Chandil Dam

Development of Tourist Infrastructure Facilities at Dam & Reservoir sides.

Since the creation of Jharkhand, the status of tourism has improved. The continuous efforts of the department have yielded good results. Thus, to make the state a preferred destination for tourists, the following prospective measures are in focus.

- A detailed survey to be conducted to study the tourism potential of every district of the state.
- Reorganization of the circuits for integrated development, publicity, promotion and

marketing. Each circuit will have a specific and exclusive marketing strategy and marketing plan.

- Conducting effective mass campaigns for the local community, particularly among the tribals, to create a favourable atmosphere and an affinity towards promoting tourism.
- Taking steps to focus upon ST/SC categories, the handicapped and women and encouraging them to actively participate in the process of the development of tourism.
- Organising various tourism-promotional events to attract tourists in the state.
- Upgradating Tourist Information Centres (TIC) for providing information related to accommodation in hotels, transport facilities etc.
- To ensure total security for the tourists, a State Tourist Friendly Security Force of ex- servicemen is to be introduced, who will be trained in hospitality and communication skills and for regulating tourism related activities etc.
- To prevent the exploitation of tourists on the national and state highways and in the various tourist destinations, the government has proposed to classify the dhabas situated on the national and state highways. This classification will be done on the basis of hygienic conditions, parking, quality of food, medical facility etc. The government has also planned to encourage ethnic Jharkhand cuisine in such dhabas/ line hotels.
- To provide upto date information about the various tourism-related activities, facilities, events etc. through the modern means of communication like web-site, email tourist help-line assistance, mobile messaging service etc. The installation of touch screen kiosks at the various places of public convergence will provide a detailed and complete information about the state.
- To promote excellence in tourism, the government will introduce monetary and non- monetary awards for the institutions and individuals contributing towards in the various sectors of tourism.
- To promote responsible tourism by taking appropriate measures for environmental protection.

- The department has decided to select four to five tourist-sites every year and to develop them as tourist destinations on the PPP (Public Private Partnership) mode. These destinations will provide all the facilities to the tourists at one site.

Box 17.1 : Jharkhand Travel Mart

The Jharkhand Travel Mart spread over three days showcased the tourism attractions of the state that would lead to an enhanced brand image as a tourist-destination. Jharkhand Travel Mart is a must attend travel exhibition presenting a diverse range of destinations in the state and industry sectors to India and International travel professionals. It is a unique opportunity for the travel trade to meet, network, negotiate and conduct business. With the advent of the strong middle class, 'Jharkhand' is perceived as an excellent 'Value for Money' destination. With many new hotels & resorts coming up in Jharkhand it will be ideal for tour operators across India to come and see the properties and sell them in their local markets. The event showcased the best of what Jharkhand has to offer to the discerning travel-trade from India and abroad. The event was organized from 23rd March to 25th March, 2018 at The Mega Sports Complex Hotwar, Khelgaon, Ranchi.

Eco Tourism

Jharkhand has a forest cover of 33%, where there is an immense scope of developing eco-tourism. The lush green jungles, the perennial waterfalls, the terrain, the moderate climate, and the rich wild life make it an ideal destination for developing eco-tourism activities like forest trails, nature walks, jungle safaris, trekking, rock climbing etc. Many of the beautiful waterfalls like Jonha falls, Sita Dhara, Hundru falls, Dassam falls, Panchghagh and Hirni falls located in very scenic surroundings are important places to discover and enjoy with a wonderful natural sightseeing.

The government has proposed to harness the tourism potential of the forests in the state by developing camping sites with basic infrastructure facilities and public convenience services. The private sector will be encouraged for setting up camping sites at various suitable locations on environment friendly basis. The government will provide accommodation to the tourists by opening the Forest Rest Houses (FRH) to the public. These Forest Rest Houses would as far as possible be managed through public-private partnership with capable and committed partners having a good track-record of promoting eco-tourism. The department has also proposed to develop eco-circuit-connection places within a 250 km radius.

The Jharkhand Eco-tourism Policy 2015 aims to establish Jharkhand as a national leader in the eco-tourism sector by providing meaningful and unique learning experiences of nature to the tourists through the conservation of the environment and showcasing the culture with the empowerment and meaningful

involvement of local communities.

The major themes of the Eco-Tourism policy 2015 will cover a broad spectrum of objectives of conserving forests, community participation, wildlife conservation, capacity building, environmental awareness etc.

Eco-tourism- A Conservation Centric Activity

The Eco-tourism plan for the forest areas and nearby tourism destinations shall be conservation-centric and in consonance with the Wildlife Management Plan in the case of Protected Areas and with the Forest Working Plans in the case of other areas.

Eco-tourism-Community Based Activity

Emphasis shall be laid upon the active involvement of the local communities in order to enhance their economic conditions through eco-tourism activities. The type and scale of eco-tourism activities shall be compatible with the environmental and socio-cultural characteristics of the local communities leading to sustainable development of the area.

Capacity Building

The capacity of the local communities and government agencies involved in eco-tourism activities shall be strengthened and developed for responsible and sustainable tourism. Need based customised training courses shall be conducted for those engaged in community based eco-tourism enterprises: in natural and cultural heritage interpretation, hospitality, business management, communication skills etc.

Environmental Awareness

The creation of environmental awareness among all the

sections and age groups of the society, especially the youth, shall be incorporated as a major activity for each eco-tourism destination. Preference shall be accorded to the quality of experience rather than to the number of visitors as such.

Wild Life Tourism

The wild life sanctuaries and national parks would be

integrated as an integral plan of Jharkhand tourism and priority would be given for professional visitors' management. The quality of tourist facilities available at the park would be enhanced and steps would be taken to improve visitors' information. Safaris and Zoological parks shall be set up at various places in the state as per the guidelines issued by Central Zoo Authority (CZA).

Box 17.2 : Sharad Utsav: Jharkhand tourism lures adventure junkies

Jharkhand Tourism Development Corporation (JTDC) has arranged for the first time low-cost, Swiss-style dormitory tents for anyone up for a thrilling excursion during Sharad Utsav, an annual carnival that began on October 1 and will continue through the winter till February 2019.

“This is the second edition of our Netarhat tourism festival. Each of the dorm-tents can accommodate 15 persons. The tariff is only Rs 500 per bed per night,” said JTDC general manager Rajeev Ranjan. Apart from the tents, tourists can opt for double-bed Swiss cottages. “There are 20 such cottages for which the per night rental of each being a modest Rs 2,500, not inclusive of taxes though,” Ranjan said. While a large group of 15 adventure-seekers can plan their stay at the dormitory, smaller groups or even individuals can book a tent bed provided they are willing to share accommodation. “We had received an overwhelming response during the maiden edition of Sharad Utsav. We are sanguine the dorm tent will attract more visitors this time. There are already bookings for December,” the JTDC official said.

Among other perks of the carnival are chances to taste local cuisine and enjoy performances by tribal artistes on a wintry evening around a bonfire. The organisers have lined up a host of sporting and adventure events such as bicycle tours, trekking, zip lining, rock climbing, boating, kayaking, water skiing and water zorbing.

Eco-sensitive Zones

The development of facilities and activities related to Eco-tourism in eco-sensitive zones shall be subject to provisions of the Environment (Protection) Act, 1986 and the Environment (Protection) Rules, 1986 and in compliance with the notifications issued in connection with the eco-sensitive zones under the mentioned rules from time to time.

Wetlands

The important wetlands of Jharkhand are Udhwa lake Bird Sanctuary, Getalsud dam, Chandil dam, Kansjor dam, Konar dam, Tilaiya dam, Massanjore dam, Maithon dam, Tenughat dam etc. These wetlands harbour avifauna and attract migratory avifauna in winters. There is an immense eco-tourism potential in these wetlands. The conservation of these wetlands with the engagement and empowerment of local communities including displaced persons from reservoirs where Eco-tourism activity is proposed to be taken up can play a major role in the maintenance of the water cycle and water regime of that area. While preparing the site-specific plan of Eco-tourism the unique character of

wetlands shall be conserved.

There are various activities that can be taken up with the Eco-tourism policy which are elaborated below:-

Nature Campus

Camping sites may be identified and provided with basic infrastructure facilities and public convenience services to enable the tourists to stay in the natural surroundings either solely to experience the wilderness or for participating in other activities requiring an overnight stay in the forests. The private sector shall be encouraged for setting up of camping sites at various suitable locations on environment-friendly basis.

Trekking and Nature Walks

There is a great potential for trekking in Jharkhand. A master plan for the development of trek routes would be prepared and implemented. Trekking routes of varying distances and guided nature trails through the designated paths may be identified and developed for tourists in scenic landscapes rich in biodiversity, causing minimum disturbance to the natural vegetation and soil.

Wildlife Viewing and River/Reservoir Cruise

Wildlife viewing in eco-friendly vehicles would be promoted at appropriate sites. Sites having water bodies would be developed for providing river/reservoir cruise facilities in non-polluting boats.

Adventure Sports

Jharkhand has a number of big water bodies, enthralling terrain, hills, dense forests, which are the pre-conditions for promoting adventure tourism activities. Comprehensive adventure tourism promotion plan would be prepared to lay down the regulatory framework for enforcement of safety standards.

Box 17.3 : 5th Wild Adventure Rally, 2018

Wild Adventure Rally (WAR) is a motorsport event, one of its kind, in the whole of Jharkhand, which is a national level platform to show the passion one holds for motorsports. It is presented by Ranchi Adventure Wheelers (RAW). It hails its origin from the year 2011 and this is the 5th time it has taken place. It was organised from the 26th to 28th January 2018. The lovers of motorsports had the opportunity to bring forward their abilities and passion and make their dreams translated to reality. It began from the capital of Jharkhand, Ranchi and advanced till Netarhat, an amazingly beautiful place of the state passing through Bero -Sisai-Ghaghra-Chainpur; and then back from Netarhat-Lohardaga-Ranchi. The areas under the rally were properly undersought by the team regarding its safety.

RANCHI ADVENTURE WHEELERS founded in 2011 is a national level motorsport club of India which functions under the ages of FMSCI. FMSCI is recognized by the Government of India, Ministry of Youth Affairs and Sports as the only National Sports Federation (NSF) for the promotion and governance of motorsports in India. Raw has been organizing TSD(TIME-SPEED-DISTANCE) rallies as WILD ADVENTURE RALLY (WAR) since 2011. RAW has organized several motorsport rallies in the last 6 years in JHARKHAND. RAW has also played a significant role in the Indo-Nepal Friendship Rally, the Bangladesh Bhutan Indo Nepal Rally & the Indo Myanmar Thailand Rally.

A Time-Speed-Distance or TSD rally is an adventure sport for normal road worthy cars which run over public roads following all traffic rules and includes off-road track sections through forests etc. The rally is adjudged for the accuracy of following the route, maintaining time over the undisclosed track as per given average speeds in the road-book handed to the navigator of each team, minutes before they are flagged off. The contestants compete in teams who start the rally at fixed intervals.

Facilities for adventure sports such as rock climbing, rappelling and parasailing along with water sports such as rafting, boating and canoeing would be developed in consultation with and cooperation from experts in and around the forest areas. The proposals of the Tourism Department in respect of adventure tourism like trekking, camps & cultural programmes will also be taken care of.

Herbal Eco-tourism

Herbal eco-tourism would be made the thrust area at suitable locations having a rich herbal heritage. Traditional medicinal practices of such locations would be explored and identified, and based on these; authentic herbal products having appropriate certifications and recognition would be made available to the tourists.

Nature Interpretation Centres

Existing Nature interpretation facilities would be strengthened to make them more comprehensive to

accommodate the requirements of the different groups of visitors. Measures will be taken at each eco-tourism destination to enrich visitor-experience.

Tree Plantation

Tree plantation as an eco-tourism linked activity will be given special attention and efforts would be made in a planned manner to deal with the problem of non-biodegradable wastes, intensive campaign to regulate plastic and other hazardous waste will be launched with the assistance of the private sector and non-government organizations (NGOs).

Conservation Education

Conservation education would be promoted in and around each destination for creating awareness amongst school and college students, local communities, government staff and visitors in order to maintain and enhance the support for eco-tourism and environmental conservation.

Box 17.4 : Jharkhand Eco-Tourism Authority (JETA)

To implement the eco-tourism policy of the state government and to take all necessary initiatives and activities to promote, nurture, develop and sustain eco-tourism in the state, an institution, namely Jharkhand Eco-tourism Authority (JETA) shall be set up. This institution will strive to establish Jharkhand as a national leader in the eco-tourism sector by providing meaningful and unique learning experiences from nature through the conservation of the environment and culture with the empowerment and meaningful involvement of local communities.

Spiritual/ Religious Tourism

Jharkhand has an abundant number of religious places of national importance. The holy city of Deoghar is the abode of Baba Baidyanath, one of the 12 Jyotir Lingas scattered across the country. The most sacred pilgrimage-site for the Jains, the Parasnath, where 20 out

of the 24 Tirthankars attained Mahanirvana, is situated in Jharkhand. One of the most revered shaktisthals- Rajrappa and Ma Bhadrakali temple are located in the Ramgarh and Chatra districts respectively. A large number of religious tourists visit such sacred shrines in the state throughout the year.

Box 17.5 : Rajrappa Mahotsav 2018

State Festival “Rajarappa Mahotsav” celebration is a symbol of confluence, faith and exultation. This year, this festival was organized on 24-25 February 2018 at C.C.L. Ground, Rajarappa, Ramgarh. The honorable Chief Minister Shri Raghuvar Das inaugurated this event.

Famous artists enchanted the audience with their singing and dance performances on the auspicious occasion of the festival.

Rajarappa is a very important place from the point of view of tourism. Here is a magnificent temple of Maa Chinnamastika. According to the belief Maa Chinnamastika had cut her head to calm her anger after killing the demons. In this temple, the statue of Maa Chinnamastika is shown without a head. Thousands of devotees come to pray to Maa Chhinmastika every day.

Religious destinations, mainly Parasnath, Deoghar, Rajrappa and Ithkhori have been major attractions among the foreign tourists. Experts believe that the formation of the states had seen a major deterrent to the growth of tourism. Some of the major announcements by state government for improving tourism are:

1. Jain pilgrimage centre ‘Parasnath’ in the Giridih

district would be developed as an international tourist destination on the public-private partnership mode.

2. Gaya to Bhadrakali temple in Chatra and Shantiniketan- Tarapith to Maluti in Dumka would get a makeover.

Box 17.6 : Ithkhori Mahotsav 2018

The state Ithkhori Festival is held every year in the Bhadrakali Temple premises. The main objective of the festival is to foster cultural harmony in the people and establish an international identity in the field of tourism. Continuing this tradition, the three-day ‘Ithkhori Mahotsav’ was organized from the 19th to the 21st of February 2018.

On the auspicious occasion of the festival famous Sufi, Hindi Bhojpuri and cultural artists enchanted the audience with their singing and dancing.

According to the popular belief, this place was named “Ithkhori” after the Lord Buddha’s split with his family. Ithkhori literally means “lost here”. This place is the confluence of the three religions, Hinduism, Buddhism and Jainism. Importance of Ithkhori is not only religious but also historical and archaeological.

Box 17.7 : Shravani Mela 2018

In Jharkhand and also in many part of the neighboring as well as distant states, the month of Shravan (July- August) is almost synonymous with Baidyanath Dham or Baba Dham as it is also known. Come Shravan and scores of people from those states throng to Deoghar which literary means the abode of God, for offering puja at the ancient temple of the presiding deity Lord Shiva who is also known as Ravaneshwar.

There is no definite information about when the temple was constructed or by whom. But the importance of Deoghar mentioned in old spiritual texts like the Shivpurana suggests that it must be around a thousand years since it was made.

The added attraction of Baidyanath Dham temple is that it is believed that the Shivalinga here is one of the twelve Jyotirlingam scattered across the country.

The main temple is a 72 feet high attractive structure with a pyramidal tower that faces the east. The top of the tower has three gold vessels and a Panchsula (five spears set in a trident-like shape). Inside the temple, there is an eight-petal lotus jewel called Chandrakanta Mani. The sacred Shivalinga is placed inside the sanctum sanctorium.

The temple complex also has 22 other shrines dedicated to the various gods and goddesses including one Shaktipeeth-one of the total of 52 across the country, which are dedicated to Goddess Sati, the wife of Lord Shiva.

The devotees visiting Deoghar during Shravan collect water in earthen pots from the river Ganga at Sultanpur across the border of Bihar and trek about 107 kms carrying that water in those earthen pots tied to a decorated bamboo pole known as Kanwar that is hung from the shoulders of the devotees that has earned them the sobriquet of kanwariyas.

They carry the kanwar in a very respectful manner through the journey and patiently stand, on reaching Deoghar, in very long serpentine queues that take hours on end to reach the sanctum sanctorium of the main temple where they offer the painstakingly carried water to the Shivalinga there.

The ritual continues for the entire month of shravan and the entire process during this period is known as Shravani Mela. Such is the rush of devotees during this month and even during the rest of the year that their movement has been recognized as the most important religious tourism of the state that contributes maximum to the tourist traffic of Jharkhand.

Rural Tourism

The rural areas of Jharkhand are also very rich naturally, ethnically and culturally. There is an immense potential of rural tourism in Jharkhand. Accordingly

certain villages in the different regions of the state are being developed, to provide basic facilities to their visiting tourists. Awareness programmes including the upgradation of rural tourist sites should also be done to promote rural tourism.

Box 17.8 : Chhau Mahotsav

Chhau Mahotsav was organized in Seraikela-Kharsawan from the 11th to the 13th of April, 2018.

It is organized to promote folk and traditional art form at the Kharsawan Arjun Stadium. The Chhau form of dance is popular in the three eastern states of West Bengal and Odisha apart from Jharkhand. In Jharkhand this tribal dance form originated from Seraikela and is known as Seraikela Chhau. The Seraikela Chhau is the subgenre of the Indian tribal martial dance attributed to Mayurbhanj in Odisha and the use of masks is a special feature of this dance form. A dance centre is also successfully being run at Seraikela by the State's Art, Culture, Sports and Youth Affairs department.

Box 17.9 : Aadi Mahotsav

As the name of this event Aadi Mahotsav suggests, it is the ‘adi’ factor that is important here. The Adivasi way of life is guided by primal truths, eternal values and a natural simplicity. The greatness of the tribes lies in the fact that they have managed to retain the primal skills and their natural simplicity. Their creations issue from the depths of time. This quality gives their art and craft a timeless appeal. The crudest tribal handicraft instantly touches a primal instinct in all of us. This is particularly true of tribal music and dance.

The tribes of India have a wide range of handicrafts. These include handwoven cotton, wool and silk fabrics, woodcrafts, metal craft, terracotta, bead-work, masques and other objects. They also produce compelling paintings. It is true that the tribes did not develop these arts and handicrafts for the market. They developed them for their own captive use. But we all live in a changing world. Nobody can remain unaffected by these changes. Not even the tribes. Like all of us, the tribes too now need cash for sundry purposes. It is therefore important that their natural skills must be channelled to promote their sources of income. It is for this reason that the government seeks to promote interaction between the tribal artisans and the mainstream designers from reputed designing organizations. The idea is to expand the product-range and designs. The synergy between these two can generate marketable products of art and handicraft for the top-end global market. Single items of bell-metal produced by the late Jaideo Baghel of Kondagaon in Bastar sold for as much as five lacs of rupees! This only points to the fact that on the one hand there are skills in the tribal pockets of India, where on the other there is a high-end demand in our cities and in the international market.

The need is to put two and two together for a win-win result. Events such as this Aadi Mahotsav are very important in this regard. The government has formed the Tribal Cooperative Marketing Development Federation of India (TRIFED) for achieving this. TRIFED is doing significant work in this direction and has now embraced e-commerce and digital platforms to take the business forward.

The theme of the festival is: A Celebration of the Spirit of Tribal Culture, Craft, Cuisine and Commerce. The festival will feature an exhibition-cum-sale of tribal handicrafts, art, paintings, fabrics, jewellery and much more through 100 stalls.

Over 150 tribal artisans and artists from over 28 States creating a mini-India participated in the festival. A special feature of the festival is that the tribal Indian are cuisine, recreated and presented in delectable forms to suit the urban tastes by special tribal chefs.

The festival was held from the 19th to the 28th of January, 2018 at Audrey House, Ranchi.

Mining Tourism

Jharkhand has considerable mineral resources and is a major centre for iron ore, coal and copper mining, as well as gold and silver. The state under its new plan for attracting more tourists, intends to redevelop the closed and abandoned mines and promote them as tourist attractions. This will be a different experience for the tourists who visit Jharkhand. The government is already in talks with several mine operators for the same. Coal mining major Bharat Coking Coal Limited (BCCL) has prepared a comprehensive plan of packaged tours to monetize a fire zone area in Jharia that once destroyed many mines. The tours would also showcase mining operations. A fire zone area is a place where underground fire rages in a coal mine which also renders the surface

area unsafe. Once the fire dies, many of these areas are reclaimed through eco-restoration work. Initially it will be free of cost but depending on the response, it will be made chargeable.

The tours would commence from Koyla Bhawan, the company’s headquarters. The first tour would be a day-long site-seeing trip of Lodna fire area and eco restoration works carried out by the company on reclaimed fireland.

schemes of the state government

Tourism Publicity

Publicity will be made through print and electronic media, hoardings, information kiosks, signage, film websites, representation and participation in the national

and international tourism fairs and festivals, exhibitions, marts etc. The department has planned for publicity in the following ways:-

- a) The department is participating in the maximum number of tourist fairs/marts organized by the different organizations in the leading city of the country.
- b) The department is organising fairs within the state to promote tourism and to attract tourists from outside the state. The department has decided to organize 10 big fairs, 3 International fair and at least 15 small fairs in the different districts of the state.
- c) It has also proposed to publicise through moveable LED display screens in the different cities of the country.
- d) The department has proposed to participate in the International Tourism Fair like WTM London, ITB Berlin etc.

Consultancy, Security and other Services

A detailed project report has been proposed which will be including those areas which are required to be developed as potential tourist spots. For this consultancy services will be hired for promoting tourism-related activities, conducting tourist related surveys, studies etc.

Wayside Amenities

At present the highways play an integral part in the promotion of tourism. Therefore, an initiative named "Aram" has been started. It has been proposed to set up wayside amenities on the national highways and state highways at regular intervals should be set up, in which an effort will be made to promote Public Private Partnerships (PPP).

Training and Skill Development

Trained man power is a primary need of the tourism industry because tourists depend on tour operators, travel agents, guides and other tourism functionaries. Thus, the state government is encouraging and supporting the creation of standard training facilities in the non-governmental sector, in addition to those available in the public sector.

Using IT Facilities

The development and maintenance of the purpose of

websites for tourism is also a part of the scheme. In some of the tourist places like amusement parks etc, there is a large inflow of the tourist. Hence the department has proposed to provide WIFI facilities in these places.

New Tourist Information Centre (TIC)

The department has taken the initiative of opening new Tourist Information Centres (TIC) in this financial year in the various important cities of the country with the coordination of Jharcraft.

Involving SGHs, NGOs for Maintenance and Management of Tourist Destination

The state government has evolved a system in which Self Help Groups (SHGs), Non Profit Organisations (NGOs), service providers, voluntary agencies etc. will be involved in the maintenance and management of tourist destinations in the state. The Jharkhand Tourism Development Corporation will play a pivotal role in this regard. A special tourist friendly force has been proposed in this regard.

Up-gradation of hotels, tourist complexes, TIC and tourist spots

It has been proposed to upgrade the existing tourist complexes, hotels, TICs and tourist spots so as to provide better facilities to the tourists. There are various tourist circuits, spots and destinations in Jharkhand which require a high quality infrastructure, public and wayside amenities etc.

Land Acquisition/Purchase/Transfer for Developing Tourist Spots

To provide quality tourist facilities at the various tourist spots in the state, the availability of land is the most critical aspect. Thus, it has proposed to acquire/purchase/transfer such lands in this regard.

Incentives Under State Tourism Policy

Tourism has been given the status of Industry in Jharkhand. It has been proposed to provide various promotional offers to the organizations and persons who invest in the internal tourism sector under the state policy. A transparent, effective and easy procedure will be made in this regard.

ART & CULTURE

The varied and rich art and culture of Jharkhand is evident from the different forms of art and culture

like Dokra art, bamboo craft, wood craft, metal work, Jadupatiya, Chador Badoni, stone carvings, Patikar paintings etc. The richness and variety symbolize the beauty, history and tradition of the state's culture .

Jharkhand's culture expresses its emotions through the medium of song, dance and plays. The government of Jharkhand has been making a lot of efforts to sustain the state's culture and tradition.

The various efforts that have been taken by the state government are as follows:

Cultural Welfare Scheme and cultural publication

The following works are proposed for the welfare and promotion of artists under the scheme;

- Cultural honour to eminent artists
- Monthly pension to ill/old-age artists
- Workshops and training sessions on the design, manufacture and exhibition of the traditional instruments/costumes & ornaments, visual arts and other art forms
- Medical grants to artists
- To make & install statues of eminent artists and personalities
- To prepare documentary films and coffee-table books on subjects related to Jharkhand's art & culture

Box 17.10 : Paryatan Parv 2018

The Ministry of Tourism, government of India, in collaboration with other central ministries and state governments has organized a "Paryatan Parv" across the country from the 16th to the 27th September 2018. The objective of the Programme is to draw focus on the benefits of tourism, showcase the cultural diversity of the country and reinforce the principle of "Tourism for All".

Organization of Cultural Programmes

The following programmes are being proposed under this scheme to promote cultural activities in the state:

- Organize Saniparab at state level & commissioner level
- To organize Subah-Sabere at state level and

commissionary level

- Cultural Programmes in different traditional melas (fairs) of the state. These include Shrawani Mela, Deoghar; Maghi Mela, Sahebganj; Chhau Mahotsav, Saraikela; Itkhor Festival
- Inter-state cultural exchange programme

Box 17.11 : Lokmanthan 2018

Lokmanthan 2018 was organized from 27-09-2018 to 30-09-2018 at Harivansh Tana Bhagat Indoor Stadium, Khelgaon – Hotwar, Ranchi. It is a colloquium of thinkers and practitioners. The main objective is to provide a public-discourse-platform to share, brain storm and perorate on the contemporary issues of the country that not only influence the home but also the world. 'Confluence of evolving nationalism, aspirations, social justice and harmony through empathy and sensitization culminating into social mobility using development as an instrument' is the moving Mantra of the national convention.

The event observed dignitaries deliberating on the contemporary issues of nationality, identity, art & tourism.

Cultural Grants in Aid

Several N.G.O.s are working in the field of art and culture in the different areas of the state. These institutions create both a cultural environment and cultural consciousness. Hence, these N.G.O's need to be given financial aids as grants.

Several dance-groups and artists who have formed SHGs and are contributing to the growth and development of art and culture need to be given financial aids as grants

to support their ongoing activities.

Guru Shishya Parampara: Reviving the rare art form of Jharkhand

This is a scheme that has been introduced to revive the rare art forms of Jharkhand. The prominent traditional cultural gurus of the rare art forms of the state will be located and will be given the responsibilities to train a certain number of tribal disciples in that particular art form. For this purpose the gurus will be given some

honorarium and the tribal disciples will be given some incentives.

Regional and Tribal Language and Cultural Growth Centre

Nine regional and tribal languages are popular in Jharkhand and these are Ho, Mundari, Santhali, Kurukh, Oraon, Kurmali, Panchpargania etc. The department has proposed to encourage the growth of these regional languages and start growth centres under this scheme. A Ho Regional Language and Cultural Growth centre is functioning at Chaibasa and other centres are in process.

Development of the Museums and Cultural Awareness

Museums of the state government and the museums run by the trusts of repute require development in terms of display, purchase of equipment and antiquities etc. Research libraries form an integral part of the museum. Heritage-awareness programmes are for conserving our precious heritage and imparting knowledge to students and the general population. To purchase equipment and antiquities, museums require financial support. Hence, the government has decided to give financial assistance to the museums run by the government trusts/societies.

Archaeological Activities and Schemes

The department has taken up an archaeological survey of all the districts of the state one by one and then steps will be taken to declare protected monuments of the state. 154 archaeological sites and monuments have been listed till date. Documentation-work of prominent monuments will also be carried out. Conservation work of ancient monuments will also be taken up. Archaeological Training/Workshop/Awareness programmes are also in progress with the help of universities and schools.

Construction of Cultural Building

Akhra and Dhumkuria traditions of Jharkhand need to be revived and promoted for these which enshrine the traditional tribal values of life. Villagers perform their dance and songs in the evenings at the Akhra and in the Dhumkuria the adolescent youth are educated. These Akhra and Dhumkuria Bhawan are like the cultural and educational centres of villages which need promotion and protection. Both are traditional art centres of the village artists. Under this scheme, these centres may be established, renovated and promoted. Some other noted

cultural centres will be established under this scheme.

Construction of Museum Building

The main objective of setting up of museums is to restore, conserve and display the objects and artefacts of archaeological and historical importance. On the basis of antiquarian remains, a museum has to be constructed with several sections, so that it can be easily accessible to the visitors. This fund will be used for setting up of new museums and for the necessary renovation and repair of the existing museums.

Establishment of Pottery Board

The government has decided to constitute and establish a pottery-board for the upliftment of the art of pottery. Under this scheme financial help will be provided to traditional craftsmen (Kumhar). After the study of established pottery board of other states the Board of Jharkhand will be established.

Regional Language and Cultural Growth Centre

The department proposes to start regional language and growth centres under this scheme. A Ho regional language and cultural growth centre is working at the Chaibasa centres for other regional languages such as Kurukh, Mundari and Santhali also need to be started.

Constitution of State Level Lalit Kala, Music Drama & Sahitya Kala Academy

Fine Arts College

For the promotion, protection and preservation of music, dance and drama it has been proposed to constitute the Jharkhand Sangeet and Natak Academy. For the protection, promotion and preservation of different traditional languages and literature, there is need to constitute a Sahitya Kala Akademy. For the promotion, protection and preservation of visual arts such as painting, sculpture and crafts, it has been proposed to constitute Jharkhand Lalit Kala Academy.

The new schemes that have been implemented are:

Creation of I.T. Applications

The department has the formidable task of the identification of sports talent, talent and achievement related to art and culture, creation of this vast database and also documentation of tangible and intangible art forms, a lot of which are becoming extinct. It is possible to do this in a time-bound and targeted manner by the

use of I.T tools, creation of website on wiki mode and having all beneficiary schemes online. The department proposes to do this with the technical support of the Department of Information & Technology.

Creation of Culture Corpus Fund

All centres are running on Corpus Fund. It is proposed to create a Corpus Fund like these centres so that cultural events may be organized regularly and smoothly without being dependent on allotment from the state. With the help of Rs. 1000.00 lakhs, a Corpus Fund can be created, where the accounts of the Corpus Fund can be maintained separately in Jharkhand Kala Mandir.

SPORTS AND YOUTH AFFAIRS

The state has a unique and glorious sports tradition. Jharkhand sportspersons are known for their performances and achievements in the disciplines of archery, hockey, cricket, athletics, kho-kho and football. Jharkhand is the home of the celebrated hockey wizard and captain of the first Olympic gold winning Indian team, Jaipal Singh Munda.

The youth constitute the most creative segment of a society. Their role and contribution are vital to Jharkhand. In order to promote sports and youth related activities, and to nurture the budding talents of the youth at an early age, the state has taken the initiative in organizing different sports competitions at the panchayat, block and district levels.

Sports University

In its pursuance of the state resolution of the Department of Tourism, Art, Culture, Sports and Youth Affairs, the

govt. of Jharkhand has established a sports university to promote the state's sports in association with CCL, Ranchi. The proposed sports university is a joint venture of the central coalfields limited and the government of Jharkhand. It will be setup at the mega sports complex in Hotwar and become functional by 2018. The proposed sports university will be governed by the Memorandum of Association, Memorandum of Understanding and Sankalp of the state govt. of Jharkhand. The university will offer the state the facilities to enhance the physical, psychological, spiritual and intellectual development of young sports persons. It would serve as a key institution for the promotion and development of sports in the state.

Sports Academies

Sports Academies are a unique concept and one of its kind. It will provide a unique opportunity to the children of Jharkhand to embrace their love for sports. These 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.

The successful operation of the Sports Academy hallmarks the dedicated efforts of the effective machinery created by a joint venture of the state govt. of Jharkhand and Central Coalfields Ltd. As part of the MoU signed, 07 sports academies was required to be operational in one year. JSSPS was successful in opening 08 sports academies (i.e. Badminton, Hockey, Football, Wrestling, Archery, Swimming, Volleyball and Athletics) and have been made operational, meeting the deadline in a cost effective and ergonomic manner.

Box 17.12 : AirTel Ran-O-Thon

Airtel in association with the government of Jharkhand and the Round Table India organized a marathon on the 21st of January, 2018 at Ranchi University.

The state of Jharkhand is endowed with immense bio-diversity, moderate climate, rich cultural and historical heritage, places of worship and ethnic aspects to make the state the ultimate destination for tourists. The state government has a firm belief that the development of the tourism sector would not only generate immense employment opportunities but also would also contribute in accelerating the economic development. This would not only ensure showcasing the rich traditional and cultural heritage of the state but also would have a cascading effect in the development of other sectors.

The state government has accorded tourism the status of industry in Jharkhand. It is felt that to ensure a rapid development in the tourism sector, there is a need to develop tourist circuits and destinations providing various amenities, both way-side and at different destination points, supporting the tourists by providing conveyance, lodging and other prerequisites, etc.

The involvement of the private sector, NGOs, self-help groups and local government stakeholders as partners in the promotion and development of the tourism industry

of the state is an important and crucial aspect, which would go a long way in the maintenance of the tourism infrastructure.

Steps Initiated towards Development

The government of Jharkhand has twin objectives of promoting Tourism, sports, Art and Culture and other youth related activities on the one hand in order to harness and channelize the youth-power and energy while on the other hand it works towards preserving and promoting the cultural diversity and heritage of

the state. The state has a unique and glorious sporting and cultural tradition. Jharkhand sports persons are known for their performances and achievements in the disciplines of archery, hockey, athletics, kho-kho and football. Besides this, Jharkhand has a distinguished cultural identity and for this the state government runs several schemes to preserve, protect and promote the rich and diverse culture and art of the state.

STATISTICAL APPENDICES



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 (P)	2017-18 (Pr)	2018-19 (Pr)
1.	Agriculture, forestry and fishing	2233546	2550211	2844224	4016315	3146379	3863940	4350513	4907371
1.1	Crops	1342099	1611776	1812103	2078016	1671596	2271420	2573699	2916206
1.2	Livestock	477585	459416	493408	560096	627292	668301	688857	710045
1.3	Forestry and logging	357560	399912	438925	1269256	719292	756347	882761	1030304
1.4	Fishing and aquaculture	56302	79107	99788	108947	128199	167872	205195	250817
2.	Mining and quarrying	1620374	1879069	1858615	2072180	2017988	1797860	1908672	2026314
	Primary	3853920	4429280	4702839	6088495	5164367	5661800	6259185	6933686
3.	Manufacturing	3016583	3797607	3660373	4065135	2979923	3282101	3547141	3833583
4.	Electricity, gas, water supply & other utility services	241235	302773	335541	354547	429292	207563	231050	257196
5.	Construction	1439526	1455717	1699296	1750743	1725906	1787366	1865326	1946687
	Secondary	4697344	5556097	5695210	6170425	5135121	5277030	5643517	6037466
6.	Trade, repair, hotels and restaurants	1152143	1383070	1595751	1802433	2016053	2689465	3056810	3474460
6.1	Trade & repair services	1065983	1272474	1479141	1658001	1863574	2528152	2869023	3255854
6.2	Hotels & restaurants	86160	110596	116610	144432	152479	161313	187787	218606
7.	Transport, storage, communication & services related to broadcasting	975954	1148809	1325607	1498718	1625466	1750605	1983109	2248913
7.1	Railways	297906	362089	404019	487006	496364	530290	612070	706462
7.2	Road transport	458247	530804	608092	650028	696942	762078	838132	921775
7.3	Water transport								
7.4	Air transport	1373	2448	3362	3917	6725	8076	11262	15704
7.5	Services incidental to transport	22315	26547	27554	26588	26385	29043	30098	31192
7.6	Storage	384	388	378	301	302	327	294	264
7.7	Communication & services related to broadcasting	195729	226533	282202	330878	398748	420791	491254	573516
8.	Financial services	414386	462493	509609	561609	656232	646370	699921	757908
9.	Real estate, ownership of dwelling & professional services	1101151	1290003	1450196	1602263	1729747	1919853	2129830	2362773
10.	Public administration	981782	927373	928783	1161608	1131223	1416041	1463995	1513574
11.	Other services	736279	885544	1045235	1194020	1229313	1501606	1728453	1989570
	Tertiary	5361695	6097292	6855181	7820651	8388034	9923940	11062119	12347199
12.	TOTAL GSDA at basic prices	13912959	16082669	17253230	20079571	18687522	20862770	22964821	25318350
13.	Taxes on Products	1511500	1822100	1992669	2147532	2323997	3145341	3461135	3808635
14.	Subsidies on products	332700	432400	389228	374586	350239	452088	459556	467147
15.	Gross State Domestic Product	15091759	17472369	18856671	21852517	20661280	23556023	25966401	28659838
16.	Population ('00)	333020	338480	344020	349660	355380	361210	367129	373144
17.	Per Capita GSDP (Rs.)	45318	51620	54813	62496	58139	65214	70728	76806

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 2: Growth (YoY) in 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 (P)	2017-18 (Pr)	2018-19 (Pr)
1.	Agriculture, forestry and fishing	14.18	11.53	41.21	-21.66	22.81	12.59	12.80
1.1	Crops	20.09	12.43	14.67	-19.56	35.88	13.31	13.31
1.2	Livestock	-3.80	7.40	13.52	12.00	6.54	3.08	3.08
1.3	Forestry and logging	11.84	9.76	189.17	-43.33	5.15	16.71	16.71
1.4	Fishing and aquaculture	40.50	26.14	9.18	17.67	30.95	22.23	22.23
2.	Mining and quarrying	15.97	-1.09	11.49	-2.62	-10.91	6.16	6.16
	Primary	14.93	6.18	29.46	-15.18	9.63	10.55	10.78
3.	Manufacturing	25.89	-3.61	11.06	-26.70	10.14	8.08	8.08
4.	Electricity, gas, water supply & other utility services	25.51	10.82	5.66	21.08	-51.65	11.32	11.32
5.	Construction	1.12	16.73	3.03	-1.42	3.56	4.36	4.36
	Secondary	18.28	2.50	8.34	-16.78	2.76	6.94	6.98
6.	Trade, repair, hotels and restaurants	20.04	15.38	12.95	11.85	33.40	13.66	13.66
6.1	Trade & repair services	19.37	16.24	12.09	12.40	35.66	13.48	13.48
6.2	Hotels & restaurants	28.36	5.44	23.86	5.57	5.79	16.41	16.41
7.	Transport, storage, communication & services related to broadcasting	17.71	15.39	13.06	8.46	7.70	13.28	13.40
7.1	Railways	21.54	11.58	20.54	1.92	6.83	15.42	15.42
7.2	Road transport	15.83	14.56	6.90	7.22	9.35	9.98	9.98
7.3	Water transport							
7.4	Air transport	78.30	37.34	16.51	71.69	20.09	39.45	39.45
7.5	Services incidental to transport	18.96	3.79	-3.51	-0.76	10.07	3.63	3.63
7.6	Storage	1.04	-2.58	-20.37	0.33	8.28	-10.18	-10.18
7.7	Communication & services related to broadcasting	15.74	24.57	17.25	20.51	5.53	16.75	16.75
8.	Financial services	11.61	10.19	10.20	16.85	-1.50	8.28	8.28
9.	Real estate, ownership of dwelling & professional services	17.15	12.42	10.49	7.96	10.99	10.94	10.94
10.	Public administration	-5.54	0.15	25.07	-2.62	25.18	3.39	3.39
11.	Other services	20.27	18.03	14.23	2.96	22.15	15.11	15.11
	Tertiary	13.72	12.43	14.08	7.25	18.31	11.47	11.62
12.	TOTAL GSVa at basic prices	15.59	7.28	16.38	-6.93	11.64	10.08	10.25
13.	Taxes on Products	20.55	9.36	7.77	8.22	35.34	10.04	10.04
14.	Subsidies on products	29.97	-9.98	-3.76	-6.50	29.08	1.65	1.65
15.	Gross State Domestic Product	15.77	7.92	15.89	-5.45	14.01	10.23	10.37
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.64	1.64
17.	Per Capita GSDP (Rs.)	13.91	6.18	14.02	-6.97	12.17	8.46	8.59

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: 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 (P)	2017-18 (Pr.)	2018-19 (Pr.)
1.	Agriculture, forestry and fishing	2233546	2364954	2321295	3033187	2171688	2543436	2639654	2740963
1.1	Crops	1342099	1498008	1430467	1507393	1133574	1427544	1483896	1542473
1.2	Livestock	477585	445735	461145	475099	493545	527976	527058	526142
1.3	Forestry and logging	357560	361880	365303	985328	473347	498780	535016	573884
1.4	Fishing and aquaculture	56302	59331	64380	65367	71222	89136	93684	98464
2.	Mining and quarrying	1620374	1730483	1720631	2017893	1965121	1750760	1883595	2026509
	Primary	3853920	4095437	4041926	5051080	4136809	4294196	4523249	4767472
3.	Manufacturing	3016583	3614824	3356361	3672018	2726440	2936815	3135738	3348135
4.	Electricity, gas, water supply & other utility services	241235	286345	291006	271008	310277	147991	153845	159930
5.	Construction	1439526	1344315	1484303	1490431	1514673	1535612	1553504	1571604
	Secondary	4697344	5245484	5131670	5433457	4551390	4620418	4843086	5079669
6.	Trade, repair, hotels and restaurants	1152143	1287305	1400566	1549332	1777188	2370814	2615745	2886083
6.1	Trade & repair services	1065983	1184361	1298228	1425181	1642775	2228614	2455132	2704672
6.2	Hotels & restaurants	86160	102944	102338	124151	134413	142200	160613	181411
7.	Transport, storage, communication & services related to broadcasting	975954	1076288	1180454	1291439	1396633	1450692	1595656	1756997
7.1	Railways	297906	345399	374927	421794	422310	420892	472619	530703
7.2	Road transport	458247	490939	535722	558749	604233	648358	692661	739991
7.3	Water transport								
7.4	Air transport	1373	1285	2256	3368	5830	6871	9267	12497
7.5	Services incidental to transport	22315	25425	18495	22854	22875	24709	24906	25105
7.6	Storage	384	369	332	259	261	278	244	214
7.7	Communication & services related to broadcasting	195729	212871	248722	284415	341124	349584	395959	448487
8.	Financial services	414386	453306	466489	493239	608198	593836	629338	666962
9.	Real estate, ownership of dwelling & professional services	1101151	1189599	1249340	1407205	1511273	1677367	1820252	1975309
10.	Public administration	981782	859075	801042	936901	846406	1013628	997941	982497
11.	Other services	736279	824103	900892	963043	946223	1155813	1264024	1382366
	Tertiary	5361695	5689676	5998783	6641159	7085921	8262150	8922956	9650215
12.	TOTAL GSDA at basic prices	13912959	15030597	15172379	17125696	15774120	17176764	18289291	19497355
13.	Taxes on Products	1511500	1697187	1751335	1850523	2018140	2651853	2836906	3034872
14.	Subsidies on products	332700	402757	342088	322780	304145	381157	377330	373542
15.	Gross State Domestic Product	15091759	16325027	16581626	18653439	17488115	19447460	20748867	22158684
16.	Population ('00)	333020	338480	344020	349660	355380	361210	367129	373144
17.	Per Capita GSDP (Rs.)	45318	48230	48200	53347	49210	53840	56517	59384

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: 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 (P)	2017-18 (Pr)	2018-19 (Pr)
1.	Agriculture, forestry and fishing	5.88	-1.85	30.67	-28.40	17.12	3.78	3.84
1.1	Crops	11.62	-4.51	5.38	-24.80	25.93	3.95	3.95
1.2	Livestock	-6.67	3.46	3.03	3.88	6.98	-0.17	-0.17
1.3	Forestry and logging	1.21	0.95	169.73	-51.96	5.37	7.26	7.26
1.4	Fishing and aquaculture	5.38	8.51	1.53	8.96	25.15	5.10	5.10
2.	Mining and quarrying	6.80	-0.57	17.28	-2.62	-10.91	7.59	7.59
	Primary	6.27	-1.31	24.97	-18.10	3.80	5.33	5.40
3.	Manufacturing	19.83	-7.15	9.40	-25.75	7.72	6.77	6.77
4.	Electricity, gas, water supply & other utility services	18.70	1.63	-6.87	14.49	-52.30	3.96	3.96
5.	Construction	-6.61	10.41	0.41	1.63	1.38	1.17	1.17
	Secondary	11.67	-2.17	5.88	-16.23	1.52	4.82	4.88
6.	Trade, repair, hotels and restaurants	11.73	8.80	10.62	14.71	33.40	10.33	10.34
6.1	Trade & repair services	11.11	9.61	9.78	15.27	35.66	10.16	10.16
6.2	Hotels & restaurants	19.48	-0.59	21.31	8.27	5.79	12.95	12.95
7.	Transport, storage, communication & services related to broadcasting	10.28	9.68	9.40	8.15	3.87	9.99	10.11
7.1	Railways	15.94	8.55	12.50	0.12	-0.34	12.29	12.29
7.2	Road transport	7.13	9.12	4.30	8.14	7.30	6.83	6.83
7.3	Water transport							
7.4	Air transport	-6.41	75.56	49.29	73.10	17.86	34.87	34.87
7.5	Services incidental to transport	13.94	-27.26	23.57	0.09	8.02	0.80	0.80
7.6	Storage	-3.91	-10.03	-21.99	0.77	6.51	-12.30	-12.30
7.7	Communication & services related to broadcasting	8.76	16.84	14.35	19.94	2.48	13.27	13.27
8.	Financial services	9.39	2.91	5.73	23.31	-2.36	5.98	5.98
9.	Real estate, ownership of dwelling & professional services	8.03	5.02	12.64	7.40	10.99	8.52	8.52
10.	Public administration	-12.50	-6.76	16.96	-9.66	19.76	-1.55	-1.55
11.	Other services	11.93	9.32	6.90	-1.75	22.15	9.36	9.36
	Tertiary	6.12	5.43	10.71	6.70	16.60	8.00	8.15
12.	TOTAL GSDA at basic prices	8.03	0.94	12.87	-7.89	8.89	6.48	6.61
13.	Taxes on Products	12.28	3.19	5.66	9.06	31.40	6.98	6.98
14.	Subsidies on products	21.06	-15.06	-5.64	-5.77	25.32	-1.00	-1.00
15.	Gross State Domestic Product	8.17	1.57	12.49	-6.25	11.20	6.69	6.79
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.64	1.64
17.	Per Capita GSDP (Rs.)	6.43	-0.06	10.68	-7.76	9.41	4.97	5.07

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 5: 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 (P)	2017-18 (Pr)	2018-19 (Pr)
1.	Agriculture, forestry and fishing	2100329	2395965	2664249	3808844	2930847	3629080	4086914	4611713
1.1	Crops	1227605	1479511	1656232	1903449	1484104	2067559	2343844	2657048
1.2	Livestock	469404	450789	483948	549966	617456	658265	678287	698918
1.3	Forestry and logging	353636	395436	433972	1256739	712567	749076	874641	1021254
1.4	Fishing and aquaculture	49684	70229	90097	98690	116720	154180	190142	234493
2.	Mining and quarrying	1424784	1651034	1591597	1759099	1688420	1521593	1596132	1674323
	Primary	3525113	4046999	4255846	5567943	4619267	5150673	5683047	6286036
3.	Manufacturing	2740497	3562247	3390423	3832136	2749502	3035193	3321854	3635588
4.	Electricity, gas, water supply & other utility services	160289	198000	222036	229621	289078	137822	152085	167825
5.	Construction	1371583	1378972	1596103	1647815	1623297	1683233	1749335	1818032
	Secondary	4272369	5139219	5208562	5709572	4661877	4856248	5223274	5621445
6.	Trade, repair, hotels and restaurants	1098375	1314047	1514561	1703297	1924352	2579439	2925872	3318968
6.1	Trade & repair services	1016218	1208962	1418108	1585491	1793030	2441623	2773744	3151041
6.2	Hotels & restaurants	82157	105085	96453	117806	131322	137816	152128	167927
7.	Transport, storage, communication & services related to broadcasting	813647	966004	1080797	1222987	1325955	1410334	1583927	1780089
7.1	Railways	237638	293142	321544	384320	384032	401987	462283	531623
7.2	Road transport	392312	456846	520538	559493	604998	657995	724985	798795
7.3	Water transport								
7.4	Air transport	1373	2448	1643	2616	5542	6520	7928	9640
7.5	Services incidental to transport	22315	26547	23837	23438	23095	25397	25212	25028
7.6	Storage	329	336	320	253	254	273	244	217
7.7	Communication & services related to broadcasting	159680	186685	212915	252867	308034	318162	363275	414786
8.	Financial services	407843	454300	501096	551249	642815	631197	682861	738755
9.	Real estate, ownership of dwelling & professional services	992301	1163065	1323500	1457842	1532901	1699272	1891312	2105054
10.	Public administration	757532	721118	726761	918200	906368	1159011	1208172	1259419
11.	Other services	692367	835956	988477	1131712	1160570	1420621	1639634	1892412
	Tertiary	4762065	5454490	6135192	6985287	7492961	8899874	9931778	11094696
12.	TOTAL GSDVA at basic prices	12559547	14640708	15599600	18262802	16774105	18906795	20838098	23002177
13.	Taxes on Products	1511500	1822100	1992669	2147532	2323997	3145341	3461135	3808635
14.	Subsidies on products	332700	432400	389228	374586	350239	452088	459556	467147
15.	Net State Domestic Product	13738347	16030408	17203041	20035748	18747863	21600048	23839678	26343666
16.	Population ('00)	333020	338480	344020	349660	355380	361210	367129	373144
17.	Per Capita GSDP (Rs.)	41254	47360	50006	57301	52754	59799	64935	70599

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 6: Growth (YoY) in Net State Domestic Product (NSDP) of Jharkhand at Current Prices (2011-12)

S. No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)	2018-19 (Pr)
1.	Agriculture, forestry and fishing	14.08	11.20	42.96	-23.05	23.82	12.62	12.84
1.1	Crops	20.52	11.94	14.93	-22.03	39.31	13.36	13.36
1.2	Livestock	-3.97	7.36	13.64	12.27	6.61	3.04	3.04
1.3	Forestry and logging	11.82	9.75	189.59	-43.30	5.12	16.76	16.76
1.4	Fishing and aquaculture	41.35	28.29	9.54	18.27	32.09	23.32	23.32
2.	Mining and quarrying	15.88	-3.60	10.52	-4.02	-9.88	4.90	4.90
	Primary	14.80	5.16	30.83	-17.04	11.50	10.34	10.61
3.	Manufacturing	29.99	-4.82	13.03	-28.25	10.39	9.44	9.44
4.	Electricity, gas, water supply & other utility services	23.53	12.14	3.42	25.89	-52.32	10.35	10.35
5.	Construction	0.54	15.75	3.24	-1.49	3.69	3.93	3.93
	Secondary	20.29	1.35	9.62	-18.35	4.17	7.56	7.62
6.	Trade, repair, hotels and restaurants	19.64	15.26	12.46	12.98	34.04	13.43	13.44
6.1	Trade & repair services	18.97	17.30	11.80	13.09	36.17	13.60	13.60
6.2	Hotels & restaurants	27.91	-8.21	22.14	11.47	4.95	10.38	10.38
7.	Transport, storage, communication & services related to broadcasting	18.73	11.88	13.16	8.42	6.36	12.31	12.38
7.1	Railways	23.36	9.69	19.52	-0.07	4.68	15.00	15.00
7.2	Road transport	16.45	13.94	7.48	8.13	8.76	10.18	10.18
7.3	Water transport							
7.4	Air transport	78.30	-32.88	59.22	111.85	17.65	21.59	21.59
7.5	Services incidental to transport	18.96	-10.21	-1.67	-1.46	9.97	-0.73	-0.73
7.6	Storage	2.13	-4.76	-20.94	0.40	7.48	-10.76	-10.76
7.7	Communication & services related to broadcasting	16.91	14.05	18.76	21.82	3.29	14.18	14.18
8.	Financial services	11.39	10.30	10.01	16.61	-1.81	8.19	8.19
9.	Real estate, ownership of dwelling & professional services	17.21	13.79	10.15	5.15	10.85	11.30	11.30
10.	Public administration	-4.81	0.78	26.34	-1.29	27.87	4.24	4.24
11.	Other services	20.74	18.25	14.49	2.55	22.41	15.42	15.42
	Tertiary	14.54	12.48	13.86	7.27	18.78	11.59	11.71
12.	TOTAL GSDVA at basic prices	16.57	6.55	17.07	-8.15	12.71	10.21	10.39
13.	Taxes on Products	20.55	9.36	7.77	8.22	35.34	10.04	10.04
14.	Subsidies on products	29.97	-9.98	-3.76	-6.50	29.08	1.65	1.65
15.	Net State Domestic Product	16.68		16.47		15.21	10.37	10.50
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.64	1.64
17.	Per Capita GSDP (Rs.)	14.80		14.59		13.35	8.59	8.72

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 constant prices (2011-12)

(Rs. In Lakh)

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr.)	2018-19 (Pr.)
1.	Agriculture, forestry and fishing	2100329	2221943	2166800	2862595	2000791	2362793	2446493	2534562
1.1	Crops	1227605	1375517	1297247	1365336	987460	1274167	1320140	1367772
1.2	Livestock	469404	437744	452760	466378	484733	519176	518058	516942
1.3	Forestry and logging	353636	357726	360916	974577	467405	492501	528070	566207
1.4	Fishing and aquaculture	49684	50956	55877	56304	61193	76949	80225	83641
2.	Mining and quarrying	1424784	1513376	1476089	1748278	1689309	1523607	1631148	1746280
	Primary	3525113	3735319	3642889	4610873	3690100	3886400	4077641	4280842
3.	Manufacturing	2740497	3388295	3103621	3462673	2520129	2715437	2935624	3173666
4.	Electricity, gas, water supply & other utility services	160289	185362	184541	159316	184676	86135	85960	85786
5.	Construction	1371583	1271097	1387201	1394971	1418993	1435005	1443116	1451272
	Secondary	4272369	4844754	4675363	5016960	4123798	4236577	4464700	4710724
6.	Trade, repair, hotels and restaurants	1098375	1222203	1326563	1462281	1695174	2273980	2502985	2755171
6.1	Trade & repair services	1016218	1124458	1242713	1361529	1579664	2152472	2372926	2615959
6.2	Hotels & restaurants	82157	97745	83850	100752	115510	121508	130059	139212
7.	Transport, storage, communication & services related to broadcasting	813647	901861	951326	1045884	1132224	1154395	1255604	1366716
7.1	Railways	237638	280740	299653	332481	324557	311441	348332	389592
7.2	Road transport	392312	420137	454700	474433	518463	553717	589932	628517
7.3	Water transport								
7.4	Air transport	1373	1285	659	2153	4737	5476	6362	7391
7.5	Services incidental to transport	22315	25425	14995	20070	19984	21529	20781	20060
7.6	Storage	329	320	279	218	218	231	201	176
7.7	Communication & services related to broadcasting	159680	173954	181040	216529	264265	262001	289996	320981
8.	Financial services	407843	445363	458389	484056	596548	580780	614911	651049
9.	Real estate, ownership of dwelling & professional services	992301	1070974	1136212	1283995	1344142	1493674	1627655	1773655
10.	Public administration	757532	660874	612617	716753	641663	780535	766270	752266
11.	Other services	692367	776851	848327	908255	885468	1085132	1187881	1300360
	Tertiary	4762065	5078126	5333434	5901224	6295219	7368496	7955308	8599216
12.	TOTAL GVA at basic prices	12559547	13658199	13651686	15529057	14109117	15491473	16497649	17590782
13.	Taxes on Products	1511500	1697187	1751335	1850523	2018140	2651853	2836906	3034872
14.	Subsidies on products	332700	402757	342088	322780	304145	381157	377330	373542
15.	Net State Domestic Product	13738347	14952629	15060933	17056800	15823112	17762169	18957224	20252112
16.	Population ('00)	333020	338480	344020	349660	355380	361210	367129	373144
17.	Per Capita GSDP (Rs.)	41254	44176	43779	48781	44524	49174	51636	54274

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 (NSDP) of Jharkhand at constant prices (2011-12)

S. No.	Item	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)	2018-19 (Pr)
1.	Agriculture, forestry and fishing	5.79	-2.48	32.11	-30.11	18.09	3.54	3.60
1.1	Crops	12.05	-5.69	5.25	-27.68	29.03	3.61	3.61
1.2	Livestock	-6.74	3.43	3.01	3.94	7.11	-0.22	-0.22
1.3	Forestry and logging	1.16	0.89	170.03	-52.04	5.37	7.22	7.22
1.4	Fishing and aquaculture	2.56	9.66	0.76	8.68	25.75	4.26	4.26
2.	Mining and quarrying	6.22	-2.46	18.44	-3.37	-9.81	7.06	7.06
	Primary	5.96	-2.47	26.57	-19.97	5.32	4.92	4.98
3.	Manufacturing	23.64	-8.40	11.57	-27.22	7.75	8.11	8.11
4.	Electricity, gas, water supply & other utility services	15.64	-0.44	-13.67	15.92	-53.36	-0.20	-0.20
5.	Construction	-7.33	9.13	0.56	1.72	1.13	0.57	0.57
	Secondary	13.40	-3.50	7.31	-17.80	2.73	5.38	5.51
6.	Trade, repair, hotels and restaurants	11.27	8.54	10.23	15.93	34.14	10.07	10.08
6.1	Trade & repair services	10.65	10.52	9.56	16.02	36.26	10.24	10.24
6.2	Hotels & restaurants	18.97	-14.22	20.16	14.65	5.19	7.04	7.04
7.	Transport, storage, communication & services related to broadcasting	10.84	5.48	9.94	8.26	1.96	8.77	8.85
7.1	Railways	18.14	6.74	10.96	-2.38	-4.04	11.85	11.85
7.2	Road transport	7.09	8.23	4.34	9.28	6.80	6.54	6.54
7.3	Water transport							
7.4	Air transport	-6.41	-48.72	226.71	120.02	15.60	16.18	16.18
7.5	Services incidental to transport	13.94	-41.02	33.84	-0.43	7.73	-3.47	-3.47
7.6	Storage	-2.74	-12.81	-21.86		5.96	-12.82	-12.82
7.7	Communication & services related to broadcasting	8.94	4.07	19.60	22.05	-0.86	10.68	10.68
8.	Financial services	9.20	2.92	5.60	23.24	-2.64	5.88	5.88
9.	Real estate, ownership of dwelling & professional services	7.93	6.09	13.01	4.68	11.12	8.97	8.97
10.	Public administration	-12.76	-7.30	17.00	-10.48	21.64	-1.83	-1.83
11.	Other services	12.20	9.20	7.06	-2.51	22.55	9.47	9.47
	Tertiary	6.64	5.03	10.65	6.68	17.05	7.96	8.09
12.	TOTAL GSDP at basic prices	8.75	-0.05	13.75	-9.14	9.80	6.50	6.63
13.	Taxes on Products	12.28	3.19	5.66	9.06	31.40	6.98	6.98
14.	Subsidies on products	21.06	-15.06	-5.64	-5.77	25.32	-1.00	-1.00
15.	Net State Domestic Product	8.84		13.25		12.25	6.73	6.83
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.64	1.64
17.	Per Capita GSDP (Rs.)	7.08		11.43		10.44	5.01	5.11

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: Percentage Distribution of GSDP by Industry constant Prices (Based on Base Year 2011-12)

S. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr.)	2018-19 (Pr.)
1	Agriculture, forestry and fishing	16.05	15.73	15.30	17.71	13.77	14.81	14.43	14.06
1.1	Crops	9.65	9.97	9.43	8.80	7.19	8.31	8.11	7.91
1.2	Livestock	3.43	2.97	3.04	2.77	3.13	3.07	2.88	2.70
1.3	Forestry and logging	2.57	2.41	2.41	5.75	3.00	2.90	2.93	2.94
1.4	Fishing and aquaculture	0.40	0.39	0.42	0.38	0.45	0.52	0.51	0.51
2	Mining and quarrying	11.65	11.51	11.34	11.78	12.46	10.19	10.30	10.39
	Primary	27.70	27.25	26.64	29.49	26.23	25.00	24.73	24.45
3.	Manufacturing	21.68	24.05	22.12	21.44	17.28	17.10	17.15	17.17
4.	Electricity, gas, water supply & other utility services	1.73	1.91	1.92	1.58	1.97	0.86	0.84	0.82
5.	Construction	10.35	8.94	9.78	8.70	9.60	8.94	8.49	8.06
	Secondary	33.76	34.90	33.82	31.73	28.85	26.90	26.48	26.05
6.	Trade, repair, hotels and restaurants	8.28	8.56	9.23	9.05	11.27	13.80	14.30	14.80
6.1	Trade & repair services	7.66	7.88	8.56	8.32	10.41	12.97	13.42	13.87
6.2	Hotels & restaurants	0.62	0.68	0.67	0.72	0.85	0.83	0.88	0.93
7.	Transport, storage, communication & services related to broadcasting	7.01	7.16	7.78	7.54	8.85	8.45	8.72	9.01
7.1	Railways	2.14	2.30	2.47	2.46	2.68	2.45	2.58	2.72
7.2	Road transport	3.29	3.27	3.53	3.26	3.83	3.77	3.79	3.80
7.3	Water transport								
7.4	Air transport	0.01	0.01	0.01	0.02	0.04	0.04	0.05	0.06
7.5	Services incidental to transport	0.16	0.17	0.12	0.13	0.15	0.14	0.14	0.13
7.6	Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.41	1.42	1.64	1.66	2.16	2.04	2.16	2.30
8.	Financial services	2.98	3.02	3.07	2.88	3.86	3.46	3.44	3.42
9.	Real estate, ownership of dwelling & professional services	7.91	7.91	8.23	8.22	9.58	9.77	9.95	10.13
10.	Public administration	7.06	5.72	5.28	5.47	5.37	5.90	5.46	5.04
11.	Other services	5.29	5.48	5.94	5.62	6.00	6.73	6.91	7.09
	Tertiary	38.54	37.85	39.54	38.78	44.92	48.10	48.79	49.49
12	TOTAL GSDP at basic prices	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
13	Taxes on Products	10.86	11.29	11.54	10.81	12.79	15.44	15.51	15.57
14	Subsidies on products	2.39	2.68	2.25	1.88	1.93	2.22	2.06	1.92
15	Gross State Domestic Product	108.47	108.61	109.29	108.92	110.87	113.22	113.45	113.65

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand, Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 10: Gross State Domestic Product (GSDP) at Current Prices (2011-12)

(Figures in ₹ Crore)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)
Andaman & Nicobar Islands	3978	4421	5023	5477	6032	6649	-
Andhra Pradesh	379402	411404	464272	524976	600298	695491	803873
Arunachal Pradesh	11063	12547	14580	17957	18549	20259	-
Assam	143175	156864	177745	195723	227959	254341	-
Bihar	247144	282368	317101	342951	369469	425888	487628
Chandigarh	18768	21608	24822	26549	29301	31823	-
Chhattisgarh	158074	177511	206833	221142	234212	262263	291681
Delhi **	343798	391388	443960	494885	548081	616826	686017
Goa	42367	38120	35921	47814	55054	62661	-
Gujarat	615606	724495	807623	921773	1029010	1162287	-
Haryana **	297539	347032	400662	437462	485184	547396	-
Himachal Pradesh	72720	82820	94764	103772	114239	126020	136198
Jammu & Kashmir	78256	87138	95619	98370	117187	126847	-
Jharkhand	150918	174724	188567	218525	206613	235560	259664
Karnataka	606010	695413	816666	913923	1045182	1156002	1311297
Kerala	364048	412313	465041	512564	561546	621700	-
Madhya Pradesh	315562	380925	439483	479939	542750	647304	-
Maharashtra	1280369	1459628	1649695	1780721	1986721	2257032	2496505
Manipur	12915	13743	16182	18129	19531	21066	-
Meghalaya	19918	21872	22938	23235	25117	27228	30218
Mizoram	7259	8362	10293	13509	15139	17613	-
Nagaland	12177	14121	16612	18401	19524	21488	-
Odisha **	230987	261700	296475	314267	330874	377202	415982
Puducherry	16818	18875	21870	22574	26643	29279	32222
Punjab	266628	297734	332147	355102	390087	428340	-
Rajasthan **	434837	493551	551031	615695	683758	759235	840263
Sikkim	11165	12338	13862	15407	18034	20020	22248
Tamil Nadu	751486	854825	968530	1072678	1176500	1270490	1427074
Telangana	359434	401594	451580	505849	577902	659074	752230
Tripura **	19208	21663	25593	27422	34368	-	-
Uttar Pradesh	724050	822393	940356	1011790	1137210	1250213	1375607
Uttarakhand	115328	131613	149074	161439	177163	191886	214033
West Bengal	520485	591464	676848	718082	797300	879167	1020858

Source: CSO

Note: As on 28.02.2018

Appendix 11: Gross State Domestic Product (GSDP) at Constant Prices (2011-12)

(Figures in ₹ Crore)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)
Andaman & Nicobar Islands	3978	4156	4488	4742	5092	5566	-
Andhra Pradesh	379402	380629	407115	444564	491697	546104	607388
Arunachal Pradesh	11063	11299	12338	14382	14291	14994	-
Assam	143175	147342	154525	165212	191109	200790	-
Bihar	247144	256851	269650	279482	295622	324778	361504
Chandigarh	18768	20285	22105	22870	25051	26631	-
Chhattisgarh	158074	165977	182579	185882	197069	213649	227866
Delhi **	343798	366628	392908	428899	474058	514871	556800
Goa	42367	35850	31568	40116	46091	51847	-
Gujarat	615606	682650	734284	811428	894465	984453	-
Haryana **	297539	320570	346799	366636	399646	434608	-
Himachal Pradesh	72720	77384	82847	89060	96274	102977	109564
Jammu & Kashmir	78256	80767	85115	82372	96978	102206	-
Jharkhand	150918	163250	165816	186534	174881	194475	207489
Karnataka	606010	643290	704850	748429	831449	895080	977994
Kerala	364048	387693	402781	419956	448473	481839	-
Madhya Pradesh	315562	351683	365134	383944	417949	469393	-
Maharashtra	1280369	1357942	1451601	1543211	1660387	1826296	1959920
Manipur	12915	12993	14115	15245	16424	16989	-
Meghalaya	19918	20354	20726	20158	20638	22051	24202
Mizoram	7259	7778	9038	11261	12324	13789	-
Nagaland	12177	12868	13793	14399	14660	15511	-
Odisha **	230987	243363	265892	270670	292792	323218	346294
Puducherry	16818	17310	19170	18207	19179	20576	22424
Punjab	266628	280823	299450	312125	330052	352421	-
Rajasthan **	434837	454564	486230	521700	558144	599029	641940
Sikkim	11165	11421	12114	13071	14370	15339	16390
Tamil Nadu	751486	791824	851976	893915	967562	1009145	1090802
Telangana	359434	370113	389957	416332	464542	511482	564539
Tripura **	19208	20873	22819	24814	27820	-	-
Uttar Pradesh	724050	758205	802070	834432	907700	974120	1036149
Uttarakhand	115328	123710	134182	141278	152699	161865	172849
West Bengal	520485	542191	558497	574364	609545	657883	718054

Source: CSO

Note: As on 28.02.2018

Appendix 12: Net State Domestic Product (NSDP) at Current Prices (2011-12)

(Figures in ₹ Crore)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)
Andaman & Nicobar Islands	3404	3793	4288	4915	5336	5897	-
Andhra Pradesh	339996	370196	413164	470934	541165	627510	725058
Arunachal Pradesh	10229	11617	13376	16493	17027	18484	-
Assam	129354	142039	160442	172849	201309	225660	-
Bihar	228497	261327	292143	315732	337987	391014	448584
Chandigarh	16930	19283	21825	22992	25122	27181	-
Chhattisgarh	142273	159431	186050	197342	208993	235378	261233
Delhi **	314650	357400	404841	448568	496868	561400	626002
Goa	38009	34567	32043	43233	50354	56933	-
Gujarat	532809	634572	707456	804764	893997	1018190	-
Haryana **	271152	314353	363590	395890	438140	494090	-
Himachal Pradesh	60536	69432	80129	87345	96851	108492	117197
Jammu & Kashmir	67274	72996	79692	81040	98427	106661	-
Jharkhand	137383	160304	172030	200357	187479	216000	238397
Karnataka	554952	635924	746569	825782	950880	1050964	1192636
Kerala	328021	371384	417265	460614	505496	561080	-
Madhya Pradesh	282371	333937	393115	429027	487717	587623	-
Maharashtra	1126595	1282180	1448768	1554800	1751276	1986806	2193973
Manipur	11501	12188	14440	16275	17493	18860	-
Meghalaya	18028	19653	20415	20697	22516	24487	27238
Mizoram	6404	7375	8989	12067	13595	15660	-
Nagaland	10554	12318	14545	16104	17128	18926	-
Odisha **	204226	233312	260977	274941	288619	329674	363335
Puducherry	15160	16984	19778	20143	24329	26753	29390
Punjab	239227	267116	297908	316745	350011	384523	-
Rajasthan **	395331	446382	494236	551570	614743	683753	757483
Sikkim	9742	10817	12203	13556	15743	17506	19444
Tamil Nadu	674478	768295	858870	957350	1057084	1139790	1279932
Telangana	325139	364030	408282	456280	522994	599541	685774
Tripura **	17419	19631	23329	24532	31058	-	-
Uttar Pradesh	645132	732995	833825	891798	1008179	1109590	1222084
Uttarakhand	101960	117041	131814	143789	158277	171342	191480
West Bengal	473205	539618	617470	651492	725992	802089	931313

Source: CSO

Note: As on 28.02.2018

Appendix 13: Net State Domestic Product (NSDP) at Constant Prices (2011-12)

(Figures in ₹ Crore)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)
Andaman & Nicobar Islands	3404	3558	3811	4151	4475	4905	-
Andhra Pradesh	339996	341335	360239	397064	439977	489032	543818
Arunachal Pradesh	10229	10399	11225	13080	12940	13431	-
Assam	129354	132518	138725	146425	167629	175745	-
Bihar	228497	236933	246915	255739	268333	294890	328824
Chandigarh	16930	18305	19813	20353	22296	23681	-
Chhattisgarh	142273	148760	163494	165418	175362	190841	203174
Delhi **	314650	334193	356528	388183	429149	465770	503507
Goa	38009	32453	27971	36042	41929	46818	-
Gujarat	532809	596659	641489	705629	774775	857690	-
Haryana **	271152	289414	314224	331413	361231	392729	-
Himachal Pradesh	60536	64519	69398	74553	80563	86186	91593
Jammu & Kashmir	67274	67316	70536	67154	80543	84803	-
Jharkhand	137383	149526	150609	170568	158231	177622	189572
Karnataka	554952	586808	640324	671283	750071	805361	879898
Kerala	328021	348616	364707	382134	408686	441212	-
Madhya Pradesh	282371	306853	322598	339247	369929	417903	-
Maharashtra	1126595	1189711	1267538	1345388	1454411	1598422	1712905
Manipur	11501	11515	12519	13615	14635	15074	-
Meghalaya	18028	18323	18397	17911	18330	19654	21623
Mizoram	6404	6836	7831	9960	10948	12368	-
Nagaland	10554	11163	11923	12406	12600	13343	-
Odisha **	204226	216301	233122	235935	255713	282775	302909
Puducherry	15160	15507	17239	16055	17143	18367	19973
Punjab	239227	251813	267515	278485	294895	314402	-
Rajasthan **	395331	409802	434292	465599	498138	535208	573628
Sikkim	9742	9970	10590	11437	12484	13340	14257
Tamil Nadu	674478	709343	750416	791915	862437	894946	967455
Telangana	325139	334205	349593	372897	416892	460125	509126
Tripura **	17419	18857	20623	22256	24906	-	-
Uttar Pradesh	645132	673552	707469	729686	790993	846834	901353
Uttarakhand	101960	109528	117777	125702	136144	143975	153601
West Bengal	473205	492901	503952	515702	546988	590958	642999

Source: CSO

Note: As on 28.02.2018

Appendix 14: Per Capita NSDP at Current Prices (2011-12)

(Figures in ₹)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)
Andaman & Nicobar Islands	88177	96027	106401	119291	126445	136824	-
Andhra Pradesh	69000	74687	82870	93903	107276	123664	142054
Arunachal Pradesh	73068	81353	91803	110912	112312	119481	-
Assam	41142	44599	49734	52895	60817	67303	-
Bihar	21750	24487	26948	28671	30213	34409	38860
Chandigarh	159116	178549	199135	206760	222710	237599	-
Chhattisgarh	55177	60849	69880	72946	76025	84265	92035
Delhi **	185361	206590	229619	249635	271305	300793	329093
Goa	259444	234354	215776	289185	334576	375550	-
Gujarat	87481	102826	113139	127017	139254	156527	-
Haryana **	106085	121269	138300	148485	162034	180174	-
Himachal Pradesh	87721	99730	114095	123299	135512	150285	160719
Jammu & Kashmir	53173	56828	61108	61213	73229	78163	-
Jharkhand	41254	47360	50006	57301	52754	59799	64935
Karnataka	90263	102319	118829	130024	148110	161936	181788
Kerala	97912	110314	123388	135537	148011	163475	-
Madhya Pradesh	38551	44931	52129	56069	62817	74590	-
Maharashtra	99564	111980	125039	132611	147610	165491	180596
Manipur	39762	41230	47798	52717	55447	58501	-
Meghalaya	60013	64036	65118	64638	68836	73291	79807
Mizoram	57654	65013	77584	103049	114055	128998	-
Nagaland	53010	61225	71510	78367	82466	90168	-
Odisha **	48370	54703	60574	63173	65650	74234	80991
Puducherry	119649	130548	148147	146921	172913	185141	198046
Punjab	85577	94318	103831	108970	118858	128890	-
Rajasthan **	57192	63658	69480	76436	83977	92076	100551
Sikkim	158667	174183	194624	214148	245987	270572	297765
Tamil Nadu	92984	104943	116236	128372	140441	150036	166934
Telangana	91121	101007	112162	124104	140840	159856	181034
Tripura **	47079	52434	61570	63969	80027	-	-
Uttar Pradesh	32002	35812	40124	42267	47062	51014	55339
Uttarakhand	100305	113610	126247	135881	147592	157643	173820
West Bengal	51543	58195	65932	68876	75992	83126	95562

Source: CSO

Note: As on 28.02.2018

Appendix 15: Per Capita NSDP at Constant Prices (2011-12)

(Figures in ₹)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (Pr)
Andaman & Nicobar Islands	88177	90064	94570	100754	106031	113796	-
Andhra Pradesh	69000	68865	72254	79174	87217	96374	106545
Arunachal Pradesh	73068	72820	77044	87965	85356	86818	-
Assam	41142	41609	43002	44809	50642	52416	-
Bihar	21750	22201	22776	23223	23987	25950	28485
Chandigarh	159116	169492	180779	183029	197663	207000	-
Chhattisgarh	55177	56777	61409	61146	63791	68321	71581
Delhi **	185361	193175	202216	216029	234328	249555	264697
Goa	259444	220019	188358	241081	278601	308823	-
Gujarat	87481	96683	102589	111370	120683	131853	-
Haryana **	106085	111648	119522	124302	133591	143211	-
Himachal Pradesh	87721	92672	98816	105241	112723	119386	125607
Jammu & Kashmir	53173	52406	54088	50724	59924	62145	-
Jharkhand	41254	44176	43779	48781	44524	49174	51636
Karnataka	90263	94417	101919	105697	116832	124093	134118
Kerala	97912	103551	107846	112444	119665	128550	-
Madhya Pradesh	38551	41287	42778	44336	47646	53047	-
Maharashtra	99564	103904	109398	114750	122588	133141	140997
Manipur	39762	38954	41441	44101	46389	46756	-
Meghalaya	60013	59703	58681	55936	56039	58826	63354
Mizoram	57654	60261	67594	85056	91845	101877	-
Nagaland	53010	55482	58619	60372	60663	63568	-
Odisha **	48370	50714	54109	54211	58165	63674	67522
Puducherry	119649	119196	129127	117102	121844	127105	134591
Punjab	85577	88915	93238	95807	100141	105386	-
Rajasthan **	57192	58441	61053	64522	68048	72072	76146
Sikkim	158667	160553	168897	180675	195066	206178	218333
Tamil Nadu	92984	96890	101559	106189	114581	117806	126179
Telangana	91121	92732	96039	101424	112267	122684	134402
Tripura **	47079	50366	54429	58033	64173	-	-
Uttar Pradesh	32002	32908	34044	34583	36923	38934	40815
Uttarakhand	100305	106318	112803	118788	126952	132464	139435
West Bengal	51543	53157	53811	54520	57255	61245	65978

Source: CSO

Note: As on 28.02.2018

Appendix 16 : Budget - At a Glance

(Rs. in crore)

Sources	2001-02 Actual	2002-03 Actual	2003-04 Actual	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Actual	2008-09 Actual	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13 Actual	2013-14 Actual	2014-15 Actual	2015-16 Actual	2016-17 Actual	2017-18 RE	2017-18 Actual	2018-19 BE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	18	20
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	65978.05	52756.03	69130.00
% Growth		9.83%	14.20%	18.14%	27.08%	18.27%	20.15%	9.81%	14.48%	24.23%	19.37%	10.48%	5.52%	20.77%	28.75%	15.79%	40.22%	12.12%	31.04%
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	41112.35	33497.07	46250.00
% Growth		8.28%	14.86%	19.75%	24.95%	22.00%	18.56%	6.47%	9.95%	18.15%	18.98%	16.20%	11.62%	8.28%	38.37%	18.19%	26.73%	3.25%	38.07%
(a) State's share of Central Taxes	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	15968.75	19141.92	22711.85	21143.63	27000.00
% Growth		6.20%	16.28%	19.53%	34.21%	27.55%	26.14%	5.52%	2.88%	10.94%	16.50%	14.81%	8.60%	6.13%	68.32%	19.87%	18.65%	10.46%	27.70%
(b) State's Own Taxes	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	18400.50	12353.44	19250.00
% Growth		10.40%	13.48%	19.97%	15.75%	15.61%	8.93%	7.86%	20.13%	27.03%	21.64%	17.63%	14.66%	10.34%	10.91%	15.86%	38.36%	-7.11%	55.83%
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	24865.70	19258.96	22880.00
% Growth		13.60%	12.66%	14.33%	32.37%	9.51%	24.28%	18.13%	24.66%	36.27%	20.05%	0.75%	-6.46%	50.02%	12.47%	10.78%	70.16%	31.80%	18.80%
(a) State's Own Non-Taxes	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	11257.40	7846.67	9030.00
% Growth		15.88%	12.00%	-4.80%	35.54%	-12.35%	28.07%	21.88%	15.49%	24.34%	8.40%	16.37%	6.14%	15.52%	35.02%	-8.57%	110.36%	46.63%	15.08%
(b) Grants-in-Aid from GOI	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	13608.30	11412.29	13850.00
% Growth		9.32%	13.98%	51.67%	28.47%	37.76%	21.17%	14.88%	33.12%	45.82%	28.00%	-8.28%	-15.70%	81.86%	-0.74%	26.22%	46.94%	23.22%	21.36%
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	10066.00	14949.92	11070.00
% Growth		72.34%	-19.33%	38.54%	94.68%	-70.10%	55.14%	46.44%	5.47%	-18.66%	6.64%	56.50%	-24.53%	95.93%	62.78%	-10.80%	-18.22%	21.46%	-25.95%
(a) Recoveries of Loans	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	66.00	42.41	70.00
% Growth		29.66%	21.84%	92.52%	29.38%	60.57%	180.75%	-57.26%	15.28%	10.71%	-2.90%	84.07%	-45.90%	41.77%	-6.05%	23.79%	71.65%	10.30%	65.06%

Sources	2001-02 Actual	2002-03 Actual	2003-04 Actual	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Actual	2008-09 Actual	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13 Actual	2013-14 Actual	2014-15 Actual	2015-16 Actual	2016-17 Actual	2017-18 RE	2017-18 Actual	2018-19 BE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	18	20
(b) Other Receipts	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	0.00	0.00	0.00
% Growth		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%	0.00%	0.00%
(c) Borrowing and Other Liabilities	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	10000.00	14907.51	11000.00
% Growth		72.40%	-19.38%	38.44%	94.84%	-70.32%	54.01%	48.14%	5.43%	-18.81%	6.71%	56.32%	-24.37%	96.23%	63.05%	-10.88%	-18.50%	21.49%	-26.21%
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	76044.05	67705.95	80200.00
% Growth		26.02%	2.32%	23.84%	48.20%	-18.01%	25.38%	16.59%	12.39%	14.86%	17.40%	16.95%	-0.13%	31.44%	35.95%	9.05%	28.10%	14.05%	18.45%
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	32927.34	31811.07	33697.00
% Growth		37.72%	1.88%	6.45%	52.81%	-16.51%	13.49%	14.99%	24.51%	6.44%	12.80%	19.32%	6.71%	10.47%	8.71%	8.41%	31.20%	26.75%	5.93%
7. On Revenue Account of Which	3538.25	4483.27	4314.95	4995.73	6352.39	6632.25	7852.09	9063.70	11369.76	11940.92	13345.30	16656.61	17184.41	19358.98	20759.81	22895.38	29663.40	28703.96	30050.72
% Growth		26.71%	-3.75%	15.78%	27.16%	4.41%	18.39%	15.43%	25.44%	5.02%	11.76%	17.32%	9.76%	12.65%	7.24%	10.29%	29.56%	25.37%	4.69%
(a) Interest Payments	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	4467.79	4661.68	5631.04
% Growth		149.90%	-16.68%	-3.47%	24.38%	13.65%	8.97%	7.33%	22.29%	-3.46%	1.78%	5.48%	9.33%	12.04%	13.35%	25.67%	7.08%	11.73%	20.79%
(b) Salary	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	11519.86	11220.86	12819.93
% Growth		9.89%	9.89%	9.89%	9.89%	8.25%	18.54%	27.34%	34.85%	6.02%	13.18%	4.81%	7.57%	6.45%	10.79%	8.69%	29.60%	26.23%	14.25%
(c) Pension	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	4135.29	5841.43	5913.24	5595.52
% Growth		0.81%	7.87%	10.65%	5.98%	3.32%	20.52%	20.78%	70.06%	23.81%	10.36%	27.63%	18.87%	-0.55%	15.14%	3.64%	41.26%	42.99%	-5.37%
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	3263.94	3107.11	3646.28
% Growth		110.62%	24.33%	-22.32%	170.74%	-61.67%	-15.37%	11.35%	16.57%	19.40%	21.22%	34.24%	-13.08%	-7.43%	23.40%	-7.88%	48.22%	41.10%	17.35%
(a) Internal Debt of the State	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	2838.23	2788.46	3297.11

Sources	2001-02 Actual	2002-03 Actual	2003-04 Actual	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Actual	2008-09 Actual	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13 Actual	2013-14 Actual	2014-15 Actual	2015-16 Actual	2016-17 Actual	2017-18 RE	2017-18 Actual	2018-19 BE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	18	20
% Growth		809.90%	235.60%	87.96%	-83.80%	418.94%	-15.08%	26.60%	47.32%	-0.42%	39.61%	37.74%	-9.12%	-7.34%	20.78%	-7.65%	47.79%	45.20%	18.24%
(b) Loans and Adv. from GOI	191.19	858.38	881.31		151.19	162.04	174.94	138.71	122.60	236.25	154.71	138.52	138.75	158.17	166.51	157.50	218.95	161.04	208.45
% Growth		348.96%	2.67%	-100.00%	0.00%	7.18%	7.96%	-20.71%	-11.61%	92.70%	-34.51%	-10.46%	0.17%	14.00%	5.27%	-5.41%	39.01%	2.25%	29.44%
(c) Capital Expenditure	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	69.73	68.81	40.00
% Growth		0.00%	-95.45%	0.00%	0.00%	-99.06%	0.00%	39.87%	-41.37%	106.33%	10.50%	40.73%	-76.53%	44.30%	216.52%	-34.87%	48.24%	46.28%	-41.87%
(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	137.03	88.80	100.72
% Growth		-57.50%	-34.73%	212.12%	833.06%	-89.02%	-37.75%	-9.84%	-82.95%	389.94%	-22.09%	47.37%	-49.14%	-56.90%	109.73%	6.81%	77.62%	15.10%	13.42%
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	43116.71	35894.88	46503.00
% Growth		2.14%	3.52%	70.96%	40.42%	-20.75%	48.40%	18.97%	-4.95%	30.64%	24.42%	13.65%	-10.06%	67.58%	66.91%	9.52%	25.83%	4.76%	29.55%
(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	28559.03	22248.11	32693.72
% Growth		-18.68%	6.31%	81.50%	7.99%	13.71%	22.54%	27.96%	-1.44%	59.74%	27.36%	1.27%	-18.80%	97.79%	27.00%	40.53%	28.68%	0.25%	46.95%
(b) of which, Grants for creation of Capital Assets										244.77	1174.38	691.94	3652.09	4030.41	6738.28	7002.72	6441.71	8542.05	
% Growth		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	379.78%	-41.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(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	14557.68	13646.77	13809.28
% Growth		38.01%	0.69%	59.66%	79.93%	-45.96%	88.19%	9.95%	-9.04%	-6.13%	18.11%	42.38%	4.34%	28.80%	145.57%	-22.09%	20.59%	13.05%	1.19%
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	76044.05	67705.95	80200.00
% Growth		26.02%	2.32%	23.84%	48.20%	-18.01%	25.38%	16.59%	12.39%	14.86%	17.40%	16.95%	-0.13%	31.44%	35.95%	9.05%	28.10%	14.05%	18.45%
(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	58222.43	50952.07	62744.44

Sources	2001-02 Actual	2002-03 Actual	2003-04 Actual	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Actual	2008-09 Actual	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13 Actual	2013-14 Actual	2014-15 Actual	2015-16 Actual	2016-17 Actual	2017-18 RE	2017-18 Actual	2018-19 BE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	18	20
% Growth		14.78%	-1.88%	29.04%	21.72%	6.75%	19.51%	18.88%	17.48%	18.62%	16.98%	11.47%	0.31%	35.46%	14.96%	23.35%	29.13%	13.00%	23.14%
(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	17821.62	16753.88	17455.56
% Growth		68.63%	13.15%	12.20%	116.32%	-53.84%	45.06%	10.29%	-2.76%	1.38%	19.19%	39.51%	-1.56%	17.95%	116.87%	-20.19%	24.86%	17.38%	4.19%
11. 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	-7755.62	-1803.96	-6385.56
% 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%	-0.69%	-0.69%	-2.23%
12. 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	-14758.34	-8245.67	-14927.61
% 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%	-3.69%	-3.18%	-3.18%	-5.21%
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	6942.82	11956.01	7494.44
% 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%	4.33%	4.61%	4.61%	2.61%
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	2475.03	7296.33	1863.40
% 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%	2.56%	2.81%	2.81%	0.65%
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	206613	235560	259664	259664	286598
% of Non-Plan Expenditure	67.13%	73.36%	73.04%	62.79%	64.74%	65.92%	59.66%	58.84%	65.19%	60.41%	58.04%	59.22%	63.28%	53.19%	42.53%	42.28%	43.30%	46.98%	42.02%
% of Salary of Non-Plan	39.16%	31.25%	33.71%	34.80%	25.02%	32.44%	33.89%	37.53%	40.65%	40.49%	40.62%	35.68%	35.97%	34.66%	35.33%	35.42%	34.99%	35.27%	38.04%
% of Interest Payment of Non-Plan	9.36%	18.56%	15.11%	11.78%	9.89%	13.70%	11.91%	10.96%	11.93%	10.03%	8.69%	7.84%	8.58%	7.32%	6.10%	7.03%	5.88%	6.89%	7.02%
% of Pension of Non-Plan	8.49%	6.79%	7.16%	6.40%	4.58%	5.77%	5.54%	5.74%	8.69%	9.37%	8.81%	9.61%	11.44%	8.65%	7.33%	6.97%	7.68%	8.73%	6.98%

Appendix 17 : Number of Teachers in 2017-18: Dept of Education Schools (Including Jr. Colleges)

Distname	I-V	I-VIII	I-X	I-XII	VI-VIII	VI-X	VI-XII	IX-X	IX-XII	XI-XII	Total	Trained	Male	Female
Bokaro	2180	2765	517	65	0	6	71	71	132	36	5843	5213	4346	1497
Chatra	1919	2551	349	70	0	0	51	24	71	15	5050	4023	3789	1261
Deoghar	2681	2736	511	87	11	8	63	45	81	55	6278	5606	5174	1104
Dhanbad	2443	3173	446	57	3	0	75	138	104	46	6485	6272	4895	1590
Dumka	2673	2798	373	84	11	17	152	50	81	8	6247	5138	4351	1896
Garhwa	1797	2527	527	126	0	0	65	66	88	0	5196	4527	4312	884
Giridih	3740	4860	746	12	1	0	91	66	138	34	9688	7414	8059	1629
Godda	1980	2295	423	49	15	0	44	52	91	24	4973	4495	4048	925
Gumla	1653	2099	320	51	0	44	169	41	33	44	4454	3822	2817	1637
Hazaribag	2149	2972	634	217	0	12	85	42	172	21	6304	5611	4380	1924
Jamtara	1148	1621	293	0	0	5	47	19	36	2	3171	2530	2383	788
Khunti	935	906	239	24	0	6	76	24	48	3	2261	1948	1343	918
Kodarma	817	1300	248	69	0	4	19	16	75	17	2565	2177	1981	584
Latchar	1243	1455	253	74	0	16	82	7	58	0	3188	2676	2314	874
Lohardaga	618	778	168	6	0	4	48	22	84	0	1728	1582	1081	647
Pakaur	1190	1418	252	42	0	23	72	15	51	8	3071	2716	2338	733
Palamu	2376	4705	806	58	10	40	87	51	103	0	8236	5647	6791	1445
Pashchimi Singhbhum	2633	2416	422	68	5	27	142	76	135	56	5980	5550	3515	2465
Purbi Singhbhum	2400	2637	405	18	0	29	73	125	110	122	5919	5575	3942	1977
Ramgarh	898	1205	418	16	0	0	29	47	58	0	2671	2232	1686	985
Ranchi	2583	3641	545	34	0	120	338	113	177	77	7628	6769	4078	3550
Sahibganj	1551	1513	319	16	0	5	62	34	80	0	3580	2932	2774	806
Saraikela-Kharsawan	1590	2257	282	16	16	0	60	43	67	21	4352	3801	3081	1271
Simdega	910	1061	155	15	0	28	117	0	0	0	2286	2102	1317	969
	44107	55689	9651	1274	72	394	2118	1187	2073	589	117154	100358	84795	32359

Source: UDISE 2017-18

Appendix 18 : Number of Schools in the state after merger in 2017-18

District	Dept. of Education				Govt. Aided				All Management						
	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr. Secondary Schools (I-XII, VI-XII, IX-XII)	Total	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr. Secondary Schools (I-XII, VI-XII, IX-XII)	Total	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr. Secondary Schools (I-XII, VI-XII, IX-XII)	Total
Bokaro	975	466	75	30	1546	0	3	1	0	4	1167	784	164	78	2193
Chatra	858	571	70	37	1536	0	3	0	0	3	954	729	107	40	1830
Deoogarh	1294	553	93	36	1976	0	5	3	1	9	1370	719	126	53	2268
Dhanbad	1086	504	101	28	1719	1	15	7	3	26	1268	964	188	81	2501
Dumka	1460	700	87	39	2286	13	10	3	0	26	1595	830	124	44	2593
Garhwa	912	412	84	42	1450	1	2	0	0	3	1003	505	111	46	1665
Giridih	1838	1072	129	51	3090	3	7	6	1	17	2021	1567	212	65	3865
Godda	872	470	93	39	1474	0	62	3	8	73	923	628	125	52	1728
Gumla	712	464	73	39	1288	167	52	16	2	237	985	598	154	48	1785
Hazaribag	869	463	81	60	1473	6	22	6	1	35	1119	901	260	80	2360
Jamtara	575	358	54	17	1004	1	2	2	0	5	612	407	67	20	1106
Khunti	472	242	39	20	773	78	37	10	0	125	597	332	91	22	1042
Kodarma	349	248	38	27	662	0	5	0	0	5	456	448	64	34	1002
Latehar	621	338	54	29	1042	0	5	0	2	7	714	414	73	33	1234
Lohardaga	269	164	33	21	487	7	4	1	1	13	360	245	59	25	689
Pakaur	539	324	42	25	930	5	32	1	1	39	666	404	52	29	1151

District	Dept. of Education				Govt. Aided				All Management						
	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr. Secondary Schools (I-XII, VI-XII, IX-XII)	Total	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr Secondary Schools (I-XII, VI-XII, IX-XII)	Total	Primary (I-V)	Middle Schools (I-VIII, VI-VIII)	Secondary Schools (I-X, VI-X, IX-X)	Hr Secondary Schools (I-XII, VI-XII, IX-XII)	Total
Palamu	1193	1157	137	51	2538	0	5	2	1	8	1273	1408	184	63	2928
Pashchimi Singhbhum	1338	556	100	60	2054	9	23	8	0	40	1447	639	145	74	2305
Purbi Singhbhum	946	495	110	37	1588	9	48	17	2	76	1119	764	250	89	2222
Ramgarh	339	187	63	18	607	2	2	0	0	4	455	352	119	44	970
Ranchi	1203	678	103	63	2047	45	54	27	3	129	1612	1187	436	135	3370
Sahibganj	756	402	72	32	1262	0	42	5	2	49	883	540	98	37	1558
Saraikela-Kharsawan	770	509	64	32	1375	0	0	0	0	0	828	560	89	49	1526
Simdega	414	252	38	28	732	150	60	17	0	227	612	341	100	32	1085
Jharkhand Total	20660	11585	1833	861	34939	497	500	135	28	1160	24039	16266	3398	1273	44976

Source: UDISE 2017-18

Appendix 19 : Number of Residential Schools in the state in 2017-18

District	Number of Schools			Sanctioned Seats			Actual Enrolment - KGBV's			Actual Enrolment - JBAV's			Actual Enrolment : Total		
	KGBV's	JBAV's	Total	KGBV's	JBAV's	Total	Total	SC	ST	Total	SC	ST	Total	SC	ST
Bokaro	8	1	9	3600	200	3800	2456	310	503	74	14	10	2530	324	513
Chatra	10	2	12	4500	400	4900	3833	1212	423	466	145	28	4299	1357	451
Deoghar	8	2	10	3600	400	4000	3083	393	401	381	31	103	3464	424	504
Dhanbad	6	3	9	2700	600	3300	2337	288	594	565	120	125	2902	408	719
Dumka	10	0	10	4500	0	4500	3840	179	1541				3840	179	1541
Garhwa	14	5	19	6300	1000	7300	4579	1164	1814	752	231	128	5331	1395	1942
Giridih	12	1	13	5400	200	5600	4476	927	484	148	19	5	4624	946	489
Godda	8	1	9	3600	200	3800	2883	316	832	187	23	13	3070	339	845
Gumla	10	2	12	4500	400	4900	3507	155	2342	254	1	218	3761	156	2560
Hazaribag	10	6	16	4500	1200	5700	3735	638	379	826	174	106	4561	812	485
Jamtara	4	2	6	1800	400	2200	1560	134	418	389	25	122	1949	159	540
Khunti	5	1	6	2250	200	2450	2050	113	1200	186	15	103	2236	128	1303
Kodarma	4	2	6	1800	400	2200	1463	293	29	262	57	9	1725	350	38
Latehar	6	3	9	2700	600	3300	2423	477	1189	564	216	160	2987	693	1349
Lohardaga	5	2	7	2250	400	2650	1941	88	955	300	9	170	2241	97	1125
Pakaur	6	0	6	2700	0	2700	2279	339	937				2279	339	937
Palamu	12	8	20	5400	1600	7000	5229	1577	1374	1579	654	200	6808	2231	1574
Pashchimi Singhbhum	15	3	18	6750	600	7350	5547	232	3836	473	23	386	6020	255	4222
Purbi Singhbhum	9	2	11	4050	400	4450	4044	196	2438	400	24	222	4444	220	2660
Ramgarh	4	2	6	1800	400	2200	1658	194	375	399	33	60	2057	227	435
Ranchi	13	5	18	5850	1000	6850	4762	435	2458	811	97	422	5573	532	2880
Sahibganj	9	0	9	4050	0	4050	2570	285	999				2570	285	999
Saraikela-Kharsawan	8	1	9	3600	200	3800	2901	163	1269	194	11	34	3095	174	1303
Simdega	7	3	10	3150	600	3750	2637	344	1636	538	26	414	3175	370	2050
Jharkhand Total	203	57	260	91350	11400	102750	75793	10452	28426	9748	1948	3038	85541	12400	31464

Source: UDISE 2017-18

Appendix 20 : Samarth Residential Schools

District	Number of Blocks	Schools	Sanctioned Seats	Actual Enrolment		
				Total	SC	ST
Bokaro	9	2	200	198	87	47
Chatra	12	1	100	100	66	2
Deoghar	10		0			
Dhanbad	9	1	100	100	10	49
Dumka	10		0			
Garhwa	20	1	100	0		
Giridih	13	1	100	34	2	12
Godda	9	1	100	80	19	45
Gumla	12	1	100	100	1	97
Hazaribag	16	1	100	100	25	38
Jamtara	6		0			
Khunti	6		0			
Kodarma	6	1	100	0		
Latehar	9	1	100	47	37	9
Lohardaga	7		0			
Pakaur	6	1	100	100	0	100
Palamu	21	1	100	99	20	52
Pashchimi Singhbhum	18	2	200	184	9	166
Purbi Singhbhum	11	2	200	200	0	191
Ramgarh	6		0			
Ranchi	18	2	200	142	3	126
Sahibganj	9		0			
Saraikela-Kharsawan	9	1	100	89	12	67
Simdega	10		0			
Jharkhand Total	262	20	2000	1573	291	1001

Source: UDISE 2017-18 (After Merger)

Appendix 21 : Number of Schools : 2017-18 : Dept of Education

District Name	I-V	I-VIII	I-X	I-XII	VI-VIIA	VI-X	VI-XII	IX-X	IX-XII	Total	Schools Having Elementary Classes	Schools Having Secondary Classes	Schools Having Hr Secondary Classes	Primary Only	Elementary/Middle Schools	Secondary	Hr Secondary
BOKARO	1172	495	56	5	0	1	9	18	16	1772	1738	105	30	1172	495	75	30
CHATRA	1082	636	62	9	0	0	14	8	14	1825	1803	107	37	1082	636	70	37
DEOGHAR	1428	563	76	8	3	1	11	16	17	2123	2090	129	36	1428	566	93	36
DHANBAD	1220	538	57	5	1	0	11	44	12	1888	1832	129	28	1220	539	101	28
DUMKA	1580	726	68	8	2	2	19	17	12	2434	2405	126	39	1580	728	87	39
GARHWA	1002	421	68	12	0	0	19	16	11	1549	1522	126	42	1002	421	84	42
GIRIDIH	2058	1142	112	1	1	0	24	17	26	3381	3338	180	51	2058	1143	129	51
GODDA	1052	526	69	6	2	0	13	24	20	1712	1668	132	39	1052	528	93	39
GUMLA	928	519	50	6	0	15	29	8	4	1559	1547	112	39	928	519	73	39
HAZARIBAG	975	485	67	18	0	1	24	13	18	1601	1570	141	60	975	485	81	60
JAMTARA	663	396	46	0	0	1	9	7	8	1130	1115	71	17	663	396	54	17
KHUNTI	541	252	31	2	0	1	11	7	7	852	838	59	20	541	252	39	20
KODARMA	407	267	32	7	0	1	9	5	11	739	723	65	27	407	267	38	27
LATEHAR	743	365	46	8	0	4	13	4	8	1191	1179	83	29	743	365	54	29
LOHARDAGA	352	184	25	1	0	1	11	7	9	590	574	54	21	352	184	33	21
PAKAUR	584	375	34	5	0	4	11	4	9	1026	1013	67	25	584	375	42	25
PALAMU	1269	1182	110	6	2	6	23	21	22	2641	2598	188	51	1269	1184	137	51
PASHCHIMI SINGHBHUM	1510	586	67	10	1	7	26	26	24	2257	2207	160	60	1510	587	100	60
PURBI SINGHBHUM	1260	548	61	2	0	5	17	44	18	1955	1893	147	37	1260	548	110	37
RAMGARH	443	201	49	3	0	0	6	14	9	725	702	81	18	443	201	63	18
RANCHI	1499	738	64	3	0	19	43	20	17	2403	2366	166	63	1499	738	103	63
SAHIBGANJ	884	429	59	3	0	1	16	12	13	1417	1392	104	32	884	429	72	32
SARAIKELA-KHARSAWAN	920	549	51	2	3	0	14	13	16	1568	1539	96	32	920	552	64	32
SIMDEGA	514	286	31	2	0	7	26	0	0	866	866	66	28	514	286	38	28
	24086	12409	1391	132	15	77	408	365	321	39204	38518	2694	861	24086	12424	1833	861

Source: UDISE 2017-18 (After Merger)

Appendix 22 : Number of Schools by School Category

AC_YEAR	SCHMGT_DESC	I-V	III-VI	I-X	III-VI	IX-X	IX-XI	IX-XII	XI-XII	Total	Pr Section	Upr Section	Secondary Section	Higher Secondary section	H Sec (Jr)	Pr (I-V)	Upr (I-VIII)	Sec (IX-XI-XII)	Hr Sec (XI-XII)		
2016-17	Central Govt.	0	2	11	32	0	3	22	0	2	4	76	45	70	70	56	60	0	2	14	56
2016-17	Department of Education	24406	12411	1390	132	15	86	410	358	318	57	39583	38339	14444	2694	860	917	24406	12426	1834	860
2016-17	Government Aided	500	480	12	17	15	92	7	33	4	22	1182	1009	623	165	28	50	500	495	137	28
2016-17	Madarsa recognized (by Wakf board/ Madarsa Board)	3	16	2	0	0	0	1	1	0	0	23	21	19	4	1	1	3	16	3	1
2016-17	Madarsa unrecognized	43	58	8	1	2	0	0	0	0	0	112	110	69	9	1	1	43	60	8	1
2016-17	NCLP	196	0	0	0	0	0	0	0	0	0	196	196	0	0	0	0	196	0	0	0
2016-17	Private Unaided	59	175	296	245	31	328	12	97	3	171	1417	775	1087	981	260	431	59	206	721	260
2016-17	Tribal Welfare Dept.	55	48	40	1	0	8	8	0	0	0	160	144	105	57	9	9	55	48	48	9
2016-17	Un-Recognised	1669	2637	502	36	23	81	3	37	0	12	5000	4844	3282	659	39	51	1669	2660	620	39
		26931	15827	2261	464	86	598	463	526	327	266	47749	45483	19699	4639	1254	1520	26931	15913	3385	1254
2017-18	Department of Education	24086	12409	1391	132	15	77	408	365	321	56	39260	38018	14432	2694	861	917	24086	12424	1833	861
2017-18	Government Aided	497	485	12	16	15	106	9	17	3	16	1176	1010	643	163	28	44	497	500	135	28
2017-18	Jawahar Navodaya Vidyalaya	0	0	0	0	0	1	16	0	0	0	17	0	17	17	16	16	0	0	1	16

AC_YEAR	SCHMGT_DESC	V-I	I-VII-I	X-I	I-XII	VI-XI	VI-XII	IX-XI	IX-XII	XI-XII	Total	Pr Section	Upr Section	Secondary Section	Higher Secondary section	H Sec (Jr)	Pr (I-V)	Upr (I-VIII, VI-VIII)	Sec (I-X, VI-X, IX-X)	Hr Sec (I-XII, VI-XII, IX-XII)
2017-18	Kendriya Vidyalaya/ Central School	4	1	8	30	0	2	5	0	1	3	43	46	46	36	39	4	1	10	36
2017-18	Madarsa recognized (by Wakf board/ Madarsa Board)	3	17	3	0	0	0	0	1	0	0	23	20	4	0	0	3	17	4	0
2017-18	Madarsa unrecognized	45	83	8	1	2	0	0	1	0	0	137	94	10	1	1	45	85	9	1
2017-18	NCLP	194	0	0	0	0	0	0	0	0	0	194	0	0	0	0	194	0	0	0
2017-18	Private Unaided	24	164	303	263	18	316	8	94	3	200	754	1072	987	274	474	24	182	713	274
2017-18	Railway Vidyalaya	0	1	1	3	0	0	0	0	0	0	5	5	4	3	3	0	1	1	3
2017-18	Sainik Vidyalaya	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0	0	1
2017-18	Social Welfare Department	0	3	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3	0	0
2017-18	Tribal Welfare Dept.	56	47	40	1	2	14	9	0	0	0	144	113	64	10	10	56	49	54	10
2017-18	Un-Recognised	2556	3814	515	38	29	80	2	44	3	7094	6923	4478	682	43	56	2556	3843	639	43
2017-18	Total	27465	17024	2281	484	81	596	458	522	288	49530	47254	20924	4672	1273	1561	27465	17105	3399	1273

Source: UDISE 2017-18 (After Merger)

Appendix 23 : Availability of Facilities in Dept of Education Schools only

Sl. No.	District Name	Schools				Total	Boys Toilet		Girls Toilet	
		Boys Only	Girls Only	Co-Edu	Available		Not Available	Available	Not Available	
1	BOKARO	2	11	1759	1772	1726	35	1749	21	
2	CHATRA	2	16	1807	1825	1805	4	1822	1	
3	DEOGHAR	10	23	2090	2123	2093	7	2107	6	
4	DHANBAD	3	25	1860	1888	1860	3	1885	0	
5	DUMKA	2	16	2416	2434	2379	39	2400	32	
6	GARHWA	1	24	1524	1549	1521	4	1513	35	
7	GIRIDIH	2	22	3357	3381	3352	7	3373	6	
8	GODDA	3	18	1690	1711	1658	35	1696	12	
9	GUMLA	2	22	1535	1559	1522	15	1544	13	
10	HAZARIBAG	2	26	1573	1601	1563	12	1591	8	
11	JAMTARA	0	9	1121	1130	1120	1	1129	1	
12	KHUNTI	0	9	843	852	824	19	837	15	
13	KODARMA	0	12	727	739	724	3	737	2	
14	LATEHAR	2	12	1177	1191	1177	2	1189	0	
15	LOHARDAGA	0	14	576	590	571	5	590	0	
16	PAKAUR	3	16	1007	1026	1008	2	1023	0	
17	PALAMU	6	33	2602	2641	2604	4	2633	2	
18	PASHCHIMI SINGHBHUM	2	37	2216	2255	2116	102	2188	65	
19	PURBI SINGHBHUM	1	18	1936	1955	1934	3	1954	0	
20	RAMGARH	0	6	719	725	716	3	724	1	
21	RANCHI	11	46	2345	2402	2340	16	2379	12	
22	SAHIBGANJ	6	16	1395	1417	1379	22	1391	20	
23	SARAIKELA-KHARSAWAN	0	14	1554	1568	1554	0	1567	1	
24	SIMDEGA	0	17	849	866	849	0	865	1	
JHARKHAND		60	462	38678	39200	38395	343	38886	254	

Source: UDISE 2017-18 (After Merger)

Appendix 24 : Gross Enrolment Ratio (GER) - All Category

S No.	Districts Name	Population (6-11 age Group)			Population (11-14 age Group)			Population (06-14 age Group)			Population (14-16 age Group)			Population (16-18 age Group)		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	BOKARO	131529	120891	252420	64941	57072	122013	196470	177963	374433	45713	39990	85703	38956	33179	72135
2	CHATRA	65462	62179	127641	32321	29355	61676	97783	91534	189317	22752	20569	43321	19388	17066	36454
3	DEOGHAR	95020	87603	182623	46915	41357	88272	141935	128960	270895	33024	28978	62002	28142	24042	52184
4	DHANBAD	172374	156200	328574	85108	73741	158849	257482	229941	487423	59908	51668	111576	51053	42868	93921
5	DUMKA	81961	79769	161730	40468	37659	78127	122429	117428	239857	28485	26386	54871	24275	21892	46167
6	GARHWA	83808	78093	161901	41379	36867	78246	125187	114960	240147	29127	25832	54959	24822	21432	46254
7	GIRIDIH	154246	145063	299309	76158	68484	144642	230404	213547	443951	53607	47984	101591	45684	39812	85496
8	GODDA	83115	77655	160770	41038	36661	77699	124153	114316	238469	28886	25687	54573	24617	21312	45929
9	GUMLA	63065	62408	125473	31138	29463	60601	94203	91871	186074	21918	20643	42561	18678	17128	35806
10	HAZARIBAG	109224	103065	212289	53929	48657	102586	163153	151722	314875	37960	34092	72052	32349	28286	60635
11	JAMTARA	49633	47184	96817	24506	22275	46781	74139	69459	143598	17250	15608	32858	14700	12949	27649
12	KHUNTI	32653	32443	65096	16122	15316	31438	48775	47759	96534	11348	10731	22079	9671	8904	18575
13	KODARMA	45022	42642	87664	22229	20131	42360	67251	62773	130024	15647	14105	29752	13334	11703	25037
14	LATEHAR	45322	43653	88975	22377	20609	42986	67699	64262	131961	15751	14440	30191	13423	11980	25403
15	LOHARDAGA	28521	27997	56518	14082	13217	27299	42603	41214	83817	9912	9261	19173	8447	7684	16131
16	PAKAUR	55497	54703	110200	27401	25825	53226	82898	80528	163426	19288	18095	37383	16437	15013	31450
17	PALAMU	123375	114055	237430	60915	53845	114760	184290	167900	352190	42878	37728	80606	36541	31302	67843
18	PASHCHIMI SINGHBHUM	91876	91989	183865	45363	43428	88791	137239	135417	272656	31931	30428	62359	27211	25246	52457
19	PURBI SINGHBHUM	144291	136467	280758	71242	64426	135668	215533	200893	416426	50148	45141	95289	42735	37453	80188
20	RAMGARH	60594	55614	116208	29918	26255	56173	90512	81869	172381	21059	18396	39455	17946	15263	33209
21	RANCHI	183283	173399	356682	90494	81861	172355	273777	255260	529037	63699	57358	121057	54284	47589	101873
22	SAHIBGANJ	72261	68559	140820	35678	32367	68045	107939	100926	208865	25114	22678	47792	21402	18816	40218
23	SARAIKELA-KHARSAWAN	66746	63608	130354	32955	30029	62984	99701	93637	193338	23197	21040	44237	19769	17457	37226
24	SIMDEGA	36819	36562	73381	18179	17261	35440	54998	53823	108821	12796	12094	24890	10905	10034	20939
	JHARKHAND	2075697	1961801	4037498	1024856	926161	1951017	3100553	2887962	5988515	721398	648932	1370330	614769	538410	1153179

Source: UDISE 2017-18 (After Merger)

Appendix 25 : NET Enrolment Ratio (NER) - All Category

S No	Districts Name	Population (6-11 age Group)			Population (11-14 age Group)			Population (14-16 age Group)			Population (16-18 age Group)					
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total			
1	BOKARO	131529	120891	252420	64941	57072	122013	196470	177963	374433	45713	39990	85703	38956	33179	72135
2	CHATRA	65462	62179	127641	32321	29355	61676	97783	91534	189317	22752	20569	43321	19388	17066	36454
3	DEOGHAR	95020	87603	182623	46915	41357	88272	141935	128960	270895	33024	28978	62002	28142	24042	52184
4	DHANBAD	172374	156200	328574	85108	73741	158849	257482	229941	487423	59908	51668	111576	51053	42868	93921
5	DUMKA	81961	79769	161730	40468	37659	78127	122429	117428	239857	28485	26386	54871	24275	21892	46167
6	GARHWA	83808	78093	161901	41379	36867	78246	125187	114960	240147	29127	25832	54959	24822	21432	46254
7	GIRIDIH	154246	145063	299309	76158	68484	144642	230404	213547	443951	53607	47984	101591	45684	39812	85496
8	GODDA	83115	77655	160770	41038	36661	77699	124153	114316	238469	28886	25687	54573	24617	21312	45929
9	GUMLA	63065	62408	125473	31138	29463	60601	94203	91871	186074	21918	20643	42561	18678	17128	35806
10	HAZARIBAG	109224	103065	212289	53929	48657	102586	163153	151722	314875	37960	34092	72052	32349	28286	60635
11	JAMTARA	49633	47184	96817	24506	22275	46781	74139	69459	143598	17250	15608	32858	14700	12949	27649
12	KHUNTI	32653	32443	65096	16122	15316	31438	48775	47759	96534	11348	10731	22079	9671	8904	18575
13	KODARMA	45022	42642	87664	22229	20131	42360	67251	62773	130024	15647	14105	29752	13334	11703	25037
14	LATEHAR	45322	43653	88975	22377	20609	42986	67699	64262	131961	15751	14440	30191	13423	11980	25403
15	LOHARDAGA	28521	27997	56518	14082	13217	27299	42603	41214	83817	9912	9261	19173	8447	7684	16131
16	PAKAUR	55497	54703	110200	27401	25825	53226	82898	80528	163426	19288	18095	37383	16437	15013	31450
17	PALAMU	123375	114055	237430	60915	53845	114760	184290	167900	352190	42878	37728	80606	36541	31302	67843
18	PASHCHIMI SINGHBHUM	91876	91989	183865	45363	43428	88791	137239	135417	272656	31931	30428	62359	27211	25246	52457
19	PURBI SINGHBHUM	144291	136467	280758	71242	64426	135668	215533	200893	416426	50148	45141	95289	42735	37453	80188
20	RAMGARH	60594	55614	116208	29918	26255	56173	90512	81869	172381	21059	18396	39455	17946	15263	33209
21	RANCHI	183283	173399	356682	90494	81861	172355	273777	255260	529037	63699	57358	121057	54284	47589	101873
22	SAHIBGANJ	72261	68559	140820	35678	32367	68045	107939	100926	208865	25114	22678	47792	21402	18816	40218
23	SARAIKELA-KHARSAWAN	66746	63608	130354	32955	30029	62984	99701	93637	193338	23197	21040	44237	19769	17457	37226
24	SIMDEGA	36819	36562	73381	18179	17261	35440	54998	53823	108821	12796	12094	24890	10905	10034	20939
	JHARKHAND	2075697	1961801	4037498	1024856	926161	1951017	3100553	2887962	5988515	721398	648932	1370330	614769	538410	1153179

Source: UDISE 2017-18 (After Merger)

Appendix 26 : Enrolment in Class I-VIII in all Management Schools

S No	2017-18 District		Gen			SC			ST			OBC			Total			Minority Muslim				
	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	
1	30816	24778	55594	26775	25677	52452	23448	22669	46117	80751	78373	159124	161790	151497	313287	14963	15522	30485				
2	10071	9121	19192	45383	44616	89999	7533	7323	14856	54845	54833	109678	117832	115893	233725	5688	5869	11557				
3	21908	16495	38403	21825	20323	42148	18825	18860	37685	91026	88787	179813	153584	144465	298049	28169	28430	56599				
4	41129	31945	73074	39893	38448	78341	24661	23521	48182	109292	103732	213024	214975	197646	412621	29587	29150	58737				
5	3341	2771	6112	8569	8102	16671	54915	53260	108175	57309	56140	113449	124134	120273	244407	8377	8751	17128				
6	7367	6201	13568	36168	35480	71648	24252	24183	48435	72197	70453	142650	139984	136317	276301	10936	11844	22780				
7	23836	20281	44117	38445	36837	75282	30834	29617	60451	169994	166478	336472	263109	253213	516322	36837	39356	76193				
8	5254	4408	9662	14188	12989	27177	28402	26084	54486	82050	81999	164049	129894	125480	255374	27277	29714	56991				
9	4144	3481	7625	5829	5159	10988	73070	71790	144860	19281	19231	38512	102324	99661	201985	1493	1535	3028				
10	18098	14409	32507	35722	34708	70430	14417	13877	28294	100606	97583	198189	168843	160577	329420	19886	21031	40917				
11	3916	3533	7449	6949	6910	13859	20287	20007	40294	36514	35944	72458	67666	66394	134060	9677	10440	20117				
12	1647	1468	3115	3525	3373	6898	38734	37393	76127	6688	6718	13406	50594	48952	99546	838	852	1690				
13	9289	7374	16663	13674	13026	26700	1904	1728	3632	50616	50458	101074	75483	72586	148069	6368	6984	13352				
14	2970	2644	5614	20266	19828	40094	37858	36865	74723	17631	16974	34605	78725	76311	155036	3255	3062	6317				
15	2548	2311	4859	3170	2937	6107	28429	28081	56510	13498	13864	27362	47645	47193	94838	8158	8934	17092				
16	3419	2919	6338	2981	2779	5760	33472	32408	65880	43905	44593	88498	83777	82699	166476	29648	30577	60225				
17	18136	16663	34799	63404	61490	124894	24144	23751	47895	89007	90107	179114	194691	192011	386702	19064	19801	38865				
18	4106	3274	7380	6760	6533	13293	107576	102566	210142	29793	28593	58386	148235	140966	289201	2201	1889	4090				
19	62436	50496	112932	12289	11469	23758	54008	51868	105876	49696	48232	97928	178429	162065	340494	15933	13634	29567				
20	13051	10020	23071	10801	10547	21348	18945	19100	38045	35531	34468	69999	78328	74135	152463	7378	7554	14932				
21	50618	39888	90506	25002	22685	47687	99000	98848	197848	89639	90563	180202	264259	251984	516243	26199	29792	55991				
22	4325	3778	8103	9060	8196	17256	31675	30018	61693	79694	80212	159906	124754	122204	246958	41876	43552	85428				
23	9337	7947	17284	6276	6068	12344	34838	33458	68296	34793	33887	68680	85244	81360	166604	1620	1807	3427				
24	1362	1122	2484	5936	5679	11615	39869	38982	78851	9322	9252	18574	56489	55035	111524	1209	1410	2619				
	Jharkhand Total	353124	287327	640451	462890	906749	871096	846257	1717353	1423678	1401474	2825152	3110788	2978917	6089705	356637	371490	728127				

Source: UDISE 2017-18 (After Merger)

Appendix 27 : District wise Number of Ration Card Holder

Sl. No.	District Name	PH Head	PH Member	AAY Head	AAY Member	Total Head	Total Member	UID Member Seeded	UID Member Verified	UID Seeding	Per Cardholder Figure		Duplicate UID Count	No Lift till pervious month
											Seeding %	UID Verified		
1	Bokaro	272472	1245761	21880	100881	294352	1346642	1127665	1059274	293966	99.87	283752	1613	51429
2	Chatra	130912	718408	38458	170166	169370	888574	689361	658468	169261	99.94	166691	21459	6607
3	Deoghar	209678	1114971	15486	70018	225164	1184989	1027577	945858	224212	99.58	217220	9729	14717
4	Dhanbad	394088	1743638	34178	123302	428266	1866940	1538195	1273613	427404	99.80	370125	4708	38492
5	Dumka	196306	911094	49549	195162	245855	1106256	860488	809524	243549	99.06	237846	8418	15274
6	East Singhbhum	349905	1463524	58854	197590	408759	1661114	1234062	1106592	407480	99.69	391296	28677	48348
7	Garhwa	220529	1051191	31104	132147	251633	1183338	964507	770968	251260	99.85	235090	59057	19981
8	Giridih	332456	1743641	69165	353425	401621	2097066	1718576	1481657	401187	99.89	372818	11827	23761
9	Godda	205208	986507	28470	100712	233678	1087219	779653	674787	230405	98.60	208289	3856	10146
10	Gumla	130854	656327	32852	166778	163506	823105	639909	522282	162725	99.52	150704	20182	10265
11	Hazaribagh	256421	1180330	55361	260794	311782	1441124	1133967	1034985	311567	99.93	299604	49961	26407
12	Jamtara	130428	633645	17971	79185	148399	712830	629322	606337	148300	99.93	146792	30185	3363
13	Khunti	66767	327457	32583	116781	99350	444238	334766	292231	99691	100.34	95872	7613	2315
14	Kodarma	83797	454610	16849	79307	100646	533917	453597	413205	100596	99.95	96080	3701	9742
15	Latehar	120901	609303	14526	71262	135427	680565	584134	545564	135416	99.99	131183	2582	1882
16	Lohardaga	71626	369329	13978	57451	85604	426780	386715	359315	85608	100.00	83479	15050	2447
17	Pakur	144669	700393	19808	68964	164477	769357	601923	577591	163649	99.50	160150	13269	14468
18	Palamau	333833	1615758	45889	191317	379722	1807075	1526037	1272232	378216	99.60	347539	29545	19068
19	Ranchi	348780	1516389	102251	427878	451031	1944267	1755218	1631484	451077	100.01	445178	51091	36104
20	Ramgarh	105597	501728	20989	94058	126586	595786	480796	396884	126469	99.91	117756	8099	16895
21	Sahibganj	156282	786040	40621	165081	196903	951121	805992	744065	196438	99.76	190550	12713	13212
22	Sarakela Kharswan	181748	744664	34451	138143	216199	882807	746230	678319	215116	99.50	202113	15911	23563
23	Simdega	100609	477097	17326	76953	117935	554050	470416	429945	117981	100.04	114885	13139	3637
24	West Singhbhum	245769	917425	96702	338994	342471	1256419	1056765	918761	342278	99.94	316656	16520	20949
	Grand Total	4789435	22469230	909301	3776349	5698736	26245579	21545871	19203941	5683851		5381668	438905	433072

Note: As on 10.12.2018

Appendix 28 : Report on Plant (Forest Division)

Sl. No.	Name of Forest Divison	Name of River Base/ Place	Number of Plant
1	Sahebganj Forest Division	Ganga River (Sakhunta Wharf)	236000
		Talbana	56000
		Barhate	250
		Taaljhari (Pathana)	1750
2	Jamtara Forest Division	Barakar River	30000
		Sarbediya	17500
		Jamuniyabad	24990
		Pursutambati	7000
3	Dumka Forest Division	Ranibahal (Mayurakshi River)	30000
		Baliram	50000
		ChotoNath Main Gate to ChotoNath Temple	100
4	Godda Forest Division	Gerua River Base	30000
		Dande Stadium	100
		Pond Edge of Godda	100
5	Pakur Forest Division	Bansloi River	30000
		Hiranpur	100
		I.T.I, Pakur	100
		Maheshpur	200
		Polytechnic, Pakur	300
6	Deoghar Forest Division	Ajay River	48000
		Soanraitathi Division Office Campus	50
		Letevavaran to Dehijor	100
		Pathardada Hill	6400
		Deghariya Hill	14000
7	Koderma Forest Division	Sakri River	500
		Jainagar Primary School	50
		Plus 2 High School Kanka	150
8	Hazaribagh West Forest Division	Kewat River	30000
		Primary School Chepakala, Gugra High School	500
9	Hazaribagh East Forest Division	Keduwa River	18000
		Guduwa	50000
10	Chatra South Forest Division	Pureni River	12000
		Basha River	12000
		Heru River	6000
11	Ramgarh Forest Division	Gola (Sawarn Rekha River)	18000
		Kodge	83300
12	Giridih East Forest Division	Usri River	21000
13	Giridih West Forest Division	Khorimahuwa to Sariya Road	2000
		Karmatand	83300

Sl. No.	Name of Forest Divison	Name of River Base/ Place	Number of Plant
14	Bokaro Forest Division	Garga River	30000
		Durgapur	5000
		Chugnu	5000
		Rohar	5000
		Railway Crossing More to Bolidih NH	1000
		RBS College to New Bai Pass Road	200
		Kharpitto & Junodih	5000
15	Dhanbad Forest Division	Barakar River (Huge Hill)	34000
		Damodar River (Sindri Slum)	30000
		District School Dhanbad	50
		Primary School , Santhaldih	200
		Lilori Place (Rajboss Hill)	200
16	Jamshedpur Forest Division	Sawarn Rekha River (Derang, Dhalbhumgarh)	72000
		Baharagorah	50
		Ghatshila	50
		Jugsalai	50
		Jamshedpur	250
17	Chaibasa Forest Division	Roro River Base	17520
		Kathikora High School	40000
		Bichuburu Middle School	50000
		Tangar Middle School	100
		Jagarnathpur	50
		Chakardharpur	50
18	Kolhan Forest Division, Chaibasa	Goilekara High School	50
19	Podhat Forest Divison, Chaibasa	Kasturba Gandhi Balika High School, Sonuwa	50
20	Saraikela Forest Division	Kharkai River	30000
		Ichagarh	50
		Kharsawan	50
21	Ranchi Forest Division	Sawarn Rekha River	42000
		Silli	100
		Namkum	50
		Hatia	100
		Kanke	100
		Mandar	100
		Ormanjhi	500
		Ranchi	100
		Ranchi	100
		Ranchi	100
		Ranchi	100

Sl. No.	Name of Forest Divison	Name of River Base/ Place	Number of Plant
22	Khunti Forest Division	Kanchi River	500
		Primary School, Cosambi Kara	100
23	Simdega Forest Division	Palmara River	18000
		Banki	30000
		Kelagagh, Simdega	30000
24	Gumla Forest Division	Kansh River Base	3600
		Nagfani Koyal River Base	2400
		Gumla	100
25	Lohardaga Forest Division	Sankh River	30000
		Kumadi	50000
		Lohardaga	50
		Lohardaga	100
26	Latehar Forest Division	Auranga River	30000
		Lanka	83300
		Chechendha	30000
27	Garhwa North Forest Division	Danro River	30000
		Mahudand	50000
		Kalyanpur	112500
		Chataniya	150000
		Rohaniya	83300
		Boyeli, Beriadammar	87500
28	Garhwa South Forest Division	Chutiya	83300
29	Medninagar Forest River	North Koyal	30000
		Hotwar	83300
		Nenuwa, Ganngdhara, Nimiya, Talabar, Jhalabar	83300
		Khodi	83300
		Kanodi	83300
		Jagdishpur	50000
		Dudhiya	83300
		Mahuwari	50000

Appendix 29.1 : Aspirational Districts Score/Delta Position as per website Report

Sl	Districts	NITI Last	Health & Nutrition										Education											
			May	June	July	Aug	Sep	Oct	Delta June	Delta July	Delta Aug	Delta Sep	Delta Oct	May	June	July	Aug	Sep	Oct	Delta June	Delta July	Delta Aug	Delta Sep	Delta Oct
1	Bokaro	93	55	55	54.8	25.5	49.9	48.6	65	65	59	81	103	66.6	66.6	66.2	39.1	77.9	78.2	106	106	49	52	20
2	Chatra	56	54.4	54.4	56.7	40.2	45.1	44.7	5	5	106	28	98	59.4	59.4	59.9	33.8	60.2	60.2	19	19	76	78	76
3	Dumka	78	58.7	58.7	58.3	29.6	29	28.7	51	51	110	81	93	62.1	62.1	61.9	6.2	38.7	38.7	97	97	76	87	76
4	Garhwa	71	58.5	58.5	57.6	34.8	46.3	47.9	98	98	74	81	39	54.4	54.4	59.1	6.8	62.2	62.2	39	39	85	87	76
5	Giridih	97	39.4	39.4	49.4	27.6	26.5	26.8	40	40	64	94	81	61.2	61.2	61.9	36.5	59.1	59.1	97	97	49	47	50
6	Godda	92	54.8	54.8	55	38.4	48.1	48.8	28	28	43	8	64	61.4	61.4	61.4	34	74	74	79	79	18	27	26
7	Gumla	59	49.5	49.5	48.5	42	45.7	47	16	16	64	34	46	43.3	43.3	47.9	34.9	69.2	69.2	1	1	1	10	1
8	Hazaribagh	64	55.4	55.4	59.7	44.1	44.5	48.2	12	12	105	66	17	64.8	64.8	68.9	41	68	68	5	5	22	17	21
9	Khunti	31	61.4	61.4	57.5	46.5	46.7	48.4	97	97	90	72	37	61	61	61.1	37.3	69.1	69.1	79	79	72	47	50
10	Latehar	81	62.9	62.9	56.5	43.2	44.3	42.4	34	34	103	38	106	54.8	54.8	55.5	28.9	50.6	50.6	79	79	10	16	13
11	Lohardaga	57	53.5	53.5	57.3	50.2	52.5	54.2	102	102	97	48	34	57.9	57.9	57.7	36.4	70.2	70.2	79	79	37	36	36
12	Pakur	34	57.5	57.5	60.9	43.1	43.8	47.6	30	30	112	60	16	59	59	62.4	30.3	42.1	42.1	3	3	104	78	76
13	Palamu	86	51.3	51.3	54.1	42.8	52.7	53.9	58	58	111	4	48	57.8	57.8	57.8	26.6	58.9	60.9	39	39	69	28	25
14	Pashchimi Singhbhum	58	52.9	52.9	54	39.4	47.4	49	76	76	56	13	38	63.1	63.1	63.1	32.7	59.1	59.1	39	39	85	78	76
15	Purbi Singhbhum	23	65.2	65.2	62.5	46	47	49.1	90	90	102	65	28	63.2	63.2	63	41.5	74.9	74.9	79	79	13	19	21
16	Ramgarh	17	61.5	61.5	56.4	40.9	43	46.5	107	107	99	53	19	69.9	69.9	70.4	42.3	66.4	66.5	39	39	85	61	70
17	Ranchi	106	42.2	42.2	46	48.7	49.1	50	10	10	55	74	57	64	64	66.7	40.6	83.1	83.1	4	4	22	21	26
18	Sahibganj	65	53.1	53.1	52.2	41.5	50.5	48.1	30	30	72	7	8	51.3	51.3	48.9	24.8	41.9	41.9	112	112	85	103	76
19	Simdega	105	64.3	64.3	61.6	52.4	61.8	63.2	88	88	67	5	2	58.4	58.4	58.8	37.1	62.6	62.6	21	21	76	69	76

Note: As on 11.12.2018

Appendix 29.2 : Aspirational Districts Score/Delta Position as per website Report

Sl	Districts	Agriculture & Water Resources										Financial Inclusion												
		May	June	July	Aug	Sep	Oct	Delta June	Delta July	Delta Aug	Delta Sep	Delta Oct	May	June	July	Aug	Sep	Oct	Delta June	Delta July	Delta Aug	Delta Sep	Delta Oct	
1	Bokaro	21.2	21.2	11.7	5.2	20.9	20.8	110	110	68	38	94	41.1	41.1	43	42.9	43.5	43.5	43.5	75	75	70	1	1
2	Chatra	14	14	16.1	17.3	16.9	16.9	87	87	101	21	92	28.9	28.9	38.4	38.1	38.5	38.5	38.5	37	37	87	1	1
3	Dumka	13.3	13.3	21	4.5	3.4	3.8	13	13	57	61	68	41.7	41.7	50.3	49.8	49.7	49.7	49.7	54	54	102	1	1
4	Garhwa	12.2	12.2	12.7	4.8	7.4	7.6	44	44	57	43	79	34.9	34.9	40.4	39.7	40.1	40.1	40.1	69	69	106	1	1
5	Giridih	3.4	3.4	3.5	2	1.1	1.2	87	87	68	43	89	40.2	40.2	43.8	43.6	43.9	43.9	43.9	75	75	80	1	1
6	Godda	9.3	9.3	9.3	9	9.8	10	70	70	68	13	79	38.6	38.6	47	46.5	46.9	46.9	46.9	52	52	101	1	1
7	Gumla	3.9	3.9	4.3	5.2	3.9	4	73	73	57	61	89	32.4	32.4	38.2	38.9	39.2	39.2	39.2	47	47	17	1	1
8	Hazaribagh	12.5	12.5	12.8	14.4	19.8	20.5	61	61	57	3	49	43.3	43.3	51.1	50.9	51	51	51	59	59	80	1	1
9	Khunti	7.5	7.5	7.8	8.3	10.8	11	64	64	47	9	79	49.2	49.2	30.1	30.2	30.4	30.4	30.4	112	112	51	1	1
10	Latehar	5	5	7.2	9.6	8.6	9.6	27	27	22	61	36	27.4	27.4	39.9	39.7	40	40	40	24	24	80	1	1
11	Lohardaga	8.5	8.5	10	9	7.2	7.4	38	38	54	61	79	34.9	34.9	46.9	47.2	48	48	48	33	33	34	1	1
12	Pakur	10.5	10.5	11.3	12.4	4.5	4.9	61	61	36	4	65	44.4	44.4	49.8	49.3	49.5	49.5	49.5	92	92	102	1	1
13	Palamu	3.9	3.9	4.3	8.3	6.2	6.5	73	73	36	96	71	33	33	39.8	39.7	40.2	40.2	40.2	46	46	70	1	1
14	Pashchimi Singhbhum	13.4	13.4	13	14.3	18.8	19.1	85	85	68	5	71	36.5	36.5	45.6	45.3	45.4	45.4	45.4	54	54	87	1	1
15	Purbi Singhbhum	16.8	16.8	17.7	21	12.4	12.6	42	42	36	111	79	43.5	43.5	47.4	47.1	48.6	48.6	48.6	57	57	87	1	1
16	Ramgarh	11.1	11.1	10.8	12.8	11.5	12.2	64	64	57	61	48	42.2	42.2	50.2	50.9	51.2	51.2	51.2	70	70	17	1	1
17	Ranchi	12	12	10.2	10.7	8.3	8.7	108	108	84	97	70	48.4	48.4	56.6	56.9	58.4	58.4	58.4	40	40	34	1	1
18	Sahibganj	9.4	9.4	10.4	5.8	4.6	4.7	26	26	47	67	89	33.3	33.3	46.8	47.2	47.5	47.5	47.5	35	35	32	1	1
19	Simdega	4.9	4.9	5.4	6	11.8	12.1	68	68	36	2	71	22.5	22.5	37.2	38.1	38.5	38.5	38.5	4	4	14	1	1

Note: As on 11.12.2018

Appendix 29.3 : Aspirational Districts Score/Delta Position as per website Report

Sl	Districts	Skill development										Basic Infrastructure											
		May	June	July	Aug	Sep	Oct	June Delta	July Delta	Delta Aug	Delta Sep	Delta Oct	May	June	July	Aug	Sep	Oct	Delta June	Delta July	Delta Aug	Delta Sep	Delta Oct
1	Bokaro	18.9	18.9	17.9	9.6	8.7	8.7	21	21	1	1	1	54.5	54.5	69.3	51.7	80.8	80.6	41	41	93	98	57
2	Chatra	5.8	5.8	17.7	8.3	17	17	79	79	1	1	1	58.1	58.1	59.7	63.7	63.8	59.6	54	54	46	41	63
3	Dumka	0	0	0	2.4	2.4	2.4	51	51	1	1	1	46.3	46.3	56.4	42.2	46.7	46.7	15	15	94	93	71
4	Garhwa	12.4	12.4	4.2	9.7	6	6	94	94	1	1	1	42.3	42.3	54.2	37.4	65.7	65	19	19	96	94	60
5	Giridih	3.9	3.9	6.1	8.2	4.4	4.4	32	32	1	1	1	38.2	38.2	55.2	61.4	66.3	66.2	51	51	30	30	14
6	Godda	3.8	3.8	3.1	0	3.1	3.1	74	74	1	1	1	42.7	42.7	55.8	68.7	74.7	74.1	25	25	29	29	15
7	Gumla	6.2	6.2	12.8	14.8	15.3	15.3	20	20	1	1	1	48.6	48.6	58.7	68	73.8	74.1	51	51	38	34	21
8	Hazaribagh	11.9	11.9	12.9	14.5	8.5	8.5	96	96	1	1	1	57.3	57.3	74.5	80.4	81.1	82	92	92	40	39	49
9	Khunti	20.5	20.5	30	40.9	25.1	25.1	8	8	1	1	1	61.5	61.5	70	78.5	78.8	77.8	99	99	37	40	29
10	Latehar	4.4	4.4	8.6	2.4	7.8	7.8	33	33	1	1	1	54.5	54.5	63.2	68.3	68.7	69.2	13	13	15	12	13
11	Lohardaga	20.9	20.9	24.8	1.2	38.2	38.2	102	102	1	1	1	49	49	63.2	73.9	73.8	73.7	16	16	18	23	28
12	Pakur	0	0	0	0	0	0	51	51	1	1	1	48.2	48.2	61.3	66.1	73.3	73.6	105	105	91	78	53
13	Palamu	14.3	14.3	6.5	6.6	6.1	6.1	100	100	1	1	1	35.1	35.1	37.1	50.1	56.7	57.7	36	36	99	92	67
14	Pashchimi Singhbhum	0.4	0.4	3.8	0	3.2	3.2	25	25	1	1	1	60.3	60.3	75.5	77.7	77.2	76.5	82	82	14	13	16
15	Purbi Singhbhum	34	34	34.3	28.3	24.5	24.5	108	108	1	1	1	62.3	62.3	74.2	82.1	82.7	83	82	82	91	91	53
16	Ramgarh	31.1	31.1	31	0.1	26.1	26.1	109	109	1	1	1	57.8	57.8	73.2	80.8	82	82.9	62	62	11	10	12
17	Ranchi	12.2	12.2	9.4	1.1	7	7	48	48	1	1	1	45.1	45.1	70	76	80.5	80.3	17	17	75	75	40
18	Sahibganj	0.1	0.1	4.4	3	7.5	7.5	26	26	1	83	1	54.6	54.6	68.6	77.1	79.4	79.9	21	21	83	83	52
19	Simdega	0	0	0	4.3	3.7	3.7	51	51	1	1	1	44.3	44.3	54	56.5	56.6	57.7	56	56	21	17	18

Note: As on 11.12.2018

