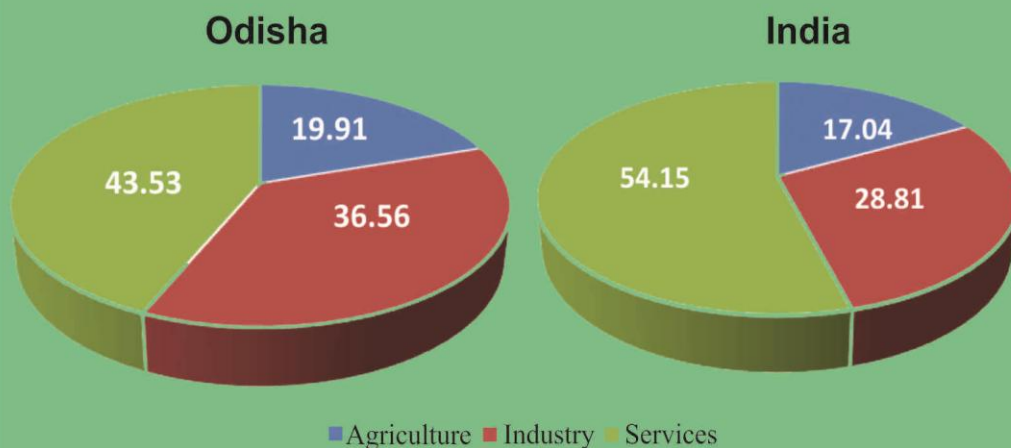




Government of Odisha

# ODISHA ECONOMIC SURVEY 2016-17

Broad Sectoral Share (in %) to GDP in 2016-17 at current prices



Planning and Convergence Department

# **Odisha Economic Survey 2016-17**

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**Planning and Convergence Department  
Directorate of Economics and Statistics  
Government of Odisha**

**February 2017**

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Government of Odisha

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## Introduction

Odisha Economic Survey: 2016-17 makes a comprehensive assessment of the performance and the structural changes in the State economy in respect of major economic, social and infrastructure sectors. The report embodies growth analysis, constraints and future growth prospects of the State. It outlines fiscal dimensions and effective reform measures taken by the State Government to ensure macroeconomic stabilisation in the State.

Odisha's economy exhibits a promising growth trajectory in recent years. The State is on the move with an impressive anticipated growth rate of 7.94% in 2016-17. Its structural shift is visible with Services Sector and Industry Sector overtaking Agriculture Sector as major driver of economy. Agriculture with 20% share to GSDP, still remains a priority Sector for the State in terms of its high employability, inclusiveness and sustainability etc. The GSDP of mineral Sector, being the investment hub for mines based large industries, grew robustly by 17.15% in 2015-16. The double digit resounding growth rates of trade (13%), transport (12%), communication (11%), real estate (11%) and other social sectors (11%) in 2015-16 transform the Odisha's economy to a "Service led" economy.

The state human development indicators have improved. IMR and USMR of Odisha have been improved remarkably to 40 and 49 respectively in 2015-16 due to State Government's priority intervention on accessibility and delivery system in health care.

The first chapter of the report presents a broad overview of the State economy. The subsequent chapters cover key sections of the economy with physical and financial achievements. The Economic Survey Report outlines the priority areas of intervention needed for further advancement of the State economy.

I thankfully acknowledge the sincere and dedicated efforts of the officers of P&C Department and Directorate of Economics & Statistics, Odisha in preparing the Odisha Economy Survey: 2016-17 Report.

I hope, this document would serve as a useful reference for the stakeholders, users, policy makers, planners and general public and will contribute to the sustainable growth of economy of the State.

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## Acknowledgement

Odisha Economic Survey: 2016-17 presents both challenges and opportunities of the State's economy with wider prospective. The valued contributions of various institutions/ agencies and sincere efforts of the officers associated with compilation of this Report are gratefully acknowledged.

Shri R. Balakrishnan, IAS, Development Commissioner-cum-Additional Chief Secretary and Shri T. K. Pandey, IAS, Principal Secretary, Finance Department guided us at different stages for improving the Report. Their administrative support & intellectual inputs are highly acknowledged with gratitude. Shri D. K. Jena, IAS, Additional Secretary, Finance Department provided useful inputs to improve the chapter on Public Finances, which deserves special mention. An Editorial Board was constituted under the chairmanship of Shri N. K. Nayak, Officer on Special Duty, P&C Department with Shri P. K. Biswal, IAS, Additional Secretary, Shri A. K. Mishra, Ex- Director-cum-Additional Secretary, Shri J. K. Mishra, Joint Director, Dr. N. K. Panda, Joint Director of P&C Department, Dr. N. K. Singh, Project Specialist, PHDMA, Shri K. D. Sahu, Joint Director, DE&S as Members and Shri D. Das Mohapatra, Deputy Director, P&C Department as Convener for finalizing the Chapters of the Economic Survey Report. The technical support provided by the Editorial Board in finalizing the chapters is thankfully acknowledged.

A dedicated team of officers and staff of the Planning and Convergence Department and Directorate of Economics and Statistics, Odisha extended their sincere supports and experiences in compilation of the Report in scheduled time frame. The team was supported by the Desk Officer and Section Officer of the Plan-I Section of P&C Department. Their contributions and timely response are deeply acknowledged. Many Departments of the State Government Agencies, Institutions and Government of India Agencies/ Offices extended timely support and co-operation in providing the required information for the Survey Report. Their co-operation and contribution are acknowledged with thanks. Sri H. K. Mishra, Director (Technical) and other Officials of Odisha Government Press made sincere efforts in printing this document in time. We thank all of them for their support.

We hope Odisha Economic Survey: 2016-17 will be useful for policymakers, administrators, planners, academicians, students and general public. Any suggestion from any quarter for improving the next publication of this Report is most welcome.

(N. K. Nayak)  
Officer on Special Duty  
Planning & Convergence Department,  
Government of Odisha

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# Acronyms

<b>ACA</b>	:	<b>Additional Central Assistance</b>
<b>ACP</b>	:	Annual Credit Plan
<b>ADB</b>	:	Asian Development Bank
<b>ADRI</b>	:	Animal Disease Research Institute
<b>AH</b>	:	Animal Husbandry
<b>ANC</b>	:	Anti Natal Care
<b>ANPM</b>	:	AtmaNijukti Paramarsha Melas
<b>APEDA</b>	:	Agricultural & Processed Food Products Export
<b>APICOL</b>	:	Agriculture Promotion Investment Corporation Ltd
<b>APL</b>	:	Above Poverty Line
<b>APMC</b>	:	Agricultural Produce Marketing Society
<b>APY</b>	:	Atal Pension Yojana
<b>ART</b>	:	Anti-Retro viral Therapy
<b>ASCAD</b>	:	Assistance to State for Control of Livestock Diseases
<b>ASER</b>	:	Annual Survey of Education Report
<b>ASMO</b>	:	Area Sown More than Once
<b>ATIC</b>	:	Agricultural Technology Information Centre
<b>AWC</b>	:	Anganwadi Centre
<b>BALCO</b>	:	Bharat Aluminium Company
<b>BBNL</b>	:	Broad Band Nigam Limited
<b>BCP</b>	:	Boundary Change Proceeding
<b>BGGY</b>	:	Biju Gan Gadi Yojana
<b>BKKY</b>	:	Biju Krushaka Kalyana Yojana
<b>BMC</b>	:	Bhubaneswar Municipal Corporation
<b>BMC</b>	:	Bio-diversity Management Committee
<b>BMI</b>	:	Body Mass Index
<b>BOT</b>	:	Build Operate Transfer
<b>BPL</b>	:	Below Poverty Line
<b>BRGF</b>	:	Backward Region Grant Fund
<b>BSE</b>	:	Board of Secondary Education
<b>BSNL</b>	:	Bharat Sanchar Nigam Limited
<b>BSVY</b>	:	Biju Saharanchala Vidyutikarana Yojana
<b>CAMPA</b>	:	Compensatory Afforestation Fund Management & Planning Authority
<b>CARD</b>	:	Cooperative Agricultural and Rural Development Bank
<b>CBIS</b>	:	Community Based Information System
<b>CBO</b>	:	Community Based Organisation
<b>CBR</b>	:	Crude Birth Rate
<b>CBSE</b>	:	Central Board Secord of Secondary Education
<b>CCCN</b>	:	Crime & Criminal Cracking Network & System
<b>C-D Ratio</b>	:	Credit-Deposit Ratio
<b>CDB</b>	:	Coconut Development Board
<b>CDM</b>	:	Clean Development Mechanism
<b>CDR</b>	:	Crude Death Rate



<b>CDS</b>	:	Current Daily Status
<b>CEA.</b>	:	Central Electrical Authority
<b>CES</b>	:	Centre for Environment Studies
<b>CESCO</b>	:	Central Electricity Corporation Ltd
<b>CESU</b>	:	Central Electricity Supply Unit
<b>CFC</b>	:	Consumption of Fixed Capital
<b>CGP</b>	:	Captive Generating Plants
<b>CHSE</b>	:	Council of Higher Secondary Education
<b>CIFA</b>	:	Central Institute of Freshwater Aquaculture
<b>CIL</b>	:	Central Investigation Laboratory
<b>CMEGP</b>	:	Chief Minister Employment Guarantee Programme
<b>CMR</b>	:	Colossal Magneto Resistance
<b>CPI</b>	:	Consumer Price Index
<b>CPP</b>	:	Captive Power Plant
<b>CPSU</b>	:	Central Public Sector Undertaking
<b>CRF</b>	:	Calamity Relief Fund
<b>CRN</b>	:	Core Road Network
<b>CRRI</b>	:	Central Rice Research Institute
<b>CSC</b>	:	Common Services Centre
<b>CSO</b>	:	Central Statistical Organization
<b>CSR</b>	:	Corporate Social Responsibility
<b>CV</b>	:	Co-efficient of Variation
<b>CVRC</b>	:	Central Variety Release Committee
<b>CWA</b>	:	Constituency wise Allotment
<b>CWS</b>	:	Current Weekly Status
<b>DAT</b>	:	Distress Alert Transmission
<b>DCCB</b>	:	District Cooperative Central Bank
<b>DDP</b>	:	District Domestic Product
<b>DDUGKY</b>	:	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
<b>DFID</b>	:	Department for International Development
<b>DGFT</b>	:	Director General Foreign Trade
<b>DIC</b>	:	District Industry Centre
<b>DISE</b>	:	District Information of School Education
<b>DLCC</b>	:	District Level Coordination Committee
<b>DoT</b>	:	Department of Tourism
<b>DoWR</b>	:	Department of Water Resources
<b>DPAP</b>	:	Drought Prone Area Programme
<b>DPR</b>	:	Detailed Project Report
<b>DTET</b>	:	Directorate of Technical Education & Training
<b>DW</b>	:	Dug Well
<b>DWCRA</b>	:	Development of Women & Children in Rural Areas
<b>DWCUA</b>	:	Development of Women & Children in Urban Areas
<b>EARAS</b>	:	Establishment of Agency For Reporting Agriculture Statistics
<b>ECBC</b>	:	Energy Conservation Building Code
<b>ECIL</b>	:	Electronic Corporation of India Limited
<b>EDC</b>	:	Eco Development Committee

<b>EIA</b>	:	Environment Impact Assessment
<b>ENVIS</b>	:	Environment Information System
<b>EPIP</b>	:	Export Promotion Industrial Park
<b>ERPC</b>	:	Eastern Region Power Committee
<b>ESSC</b>	:	Electric Sector Skill Council
<b>ETM</b>	:	Electric Ticketing Machine
<b>EWS</b>	:	Economically Weaker Section
<b>FARTC</b>	:	Fresh Water Aquaculture Research Training Centre
<b>FBS</b>	:	Frozen Semen Bank
<b>FCAL</b>	:	Ferro Chrome & Alloys Ltd
<b>FCI</b>	:	Food Corporation of India
<b>FFDA</b>	:	Fish Farmers Development Agency
<b>FFS</b>	:	Farmers Field School
<b>FLC</b>	:	Fish Landing Centre
<b>FSAI</b>	:	Frozen Seimen Artificial Insemination
<b>FSCS</b>	:	Farmers Service Cooperative Society
<b>FSI</b>	:	Forest Survey of India
<b>FSR</b>	:	Forest Survey Report
<b>FSRE</b>	:	Farming System Research Education
<b>GDDP</b>	:	Gross District Domestic Product
<b>GDP</b>	:	Gross Domestic Product
<b>GEDCOL</b>	:	Green Energy Development Corporation Ltd.
<b>GFCF</b>	:	Gross Fixed Capital Formation
<b>GFR</b>	:	General Fertility Rate
<b>GGY</b>	:	Gopabandhu GraminYojana
<b>GPF</b>	:	General Provident Fund
<b>GPO</b>	:	General Post Office
<b>GRIDCO</b>	:	Grid Corporation of Odisha
<b>GSDP</b>	:	Gross State Domestic Product
<b>GVA</b>	:	Gross Value Added
<b>HCFC</b>	:	High Carbon Ferro Chrome
<b>HDI</b>	:	Human Development Index
<b>HMV</b>	:	Heavy Motor Vehicle
<b>HRD</b>	:	Human Resource Development
<b>HSG</b>	:	High Spending Group
<b>HUDCO</b>	:	Housing & Urban Development Corporation
<b>HYV</b>	:	High Yielding Variety
<b>IAP</b>	:	Integrated Action Plan
<b>IAY</b>	:	Indira Awas Yojana
<b>ICDS</b>	:	Integrated Child Development Scheme
<b>ICSE</b>	:	Indian Council of Secondary Education
<b>ICT</b>	:	Information & Communication Technology
<b>ICTC</b>	:	Integrated Counselling & Testing Centre
<b>IDCO</b>	:	Infrastructure Development Corporation
<b>IDCOL</b>	:	Industrial Development Corporation of Odisha Ltd
<b>IDDP</b>	:	Integrated Dairy Development Programme

<b>IEC</b>	:	Information Education & Communication
<b>IGA</b>	:	Income Generating Activity
<b>IGEA</b>	:	Investment Grade Energy Audit
<b>IGNOAP</b>	:	Indira Gandhi National Old Age Pension
<b>ID</b>	:	Industrial Infrastructure Development
<b>IIIT</b>	:	Indian Institute of Information Technology
<b>IIM</b>	:	Indian Institute of Management
<b>IIT</b>	:	Indian Institute of Technology
<b>IKIWL</b>	:	IDCOL Kalinga Iron Works Ltd
<b>ILD</b>	:	Integrated Livestock Development Programme
<b>IMA</b>	:	Institute of Mathematic Application
<b>IMIS</b>	:	Integrated Management Information System
<b>IMR</b>	:	Infant Mortality Rate
<b>IMS</b>	:	Institute of Material Science
<b>INM</b>	:	Integrated Nutrient Management
<b>IPDS</b>	:	Integrated Power Development Scheme
<b>IPICOL</b>	:	Industrial Promotion & Investment Corporation Ltd
<b>IPM</b>	:	Integrated Pest Management
<b>IRDP</b>	:	Integrated Rural Development Programme
<b>IT</b>	:	Information Technology
<b>ITB</b>	:	International Tourism Bureau
<b>ITDAs</b>	:	Integrated Tribal Development Agency
<b>ITI</b>	:	Industrial Training Institute
<b>ITPS</b>	:	IB Thermal Power Station
<b>IVLP</b>	:	Institute of Village Linkage Programme
<b>IWDP</b>	:	Integrated Watershed Development Programme
<b>IWMP</b>	:	Integrated Watershed Management Programme
<b>IWT</b>	:	Inland Water Transport
<b>JFM</b>	:	Joint Forest Management
<b>JNNURM</b>	:	Jawaharlal Nehru Urban Renewal Mission
<b>JSPL</b>	:	Jindal Steel Plant Limited
<b>KBK</b>	:	Kalahandi Bolangir Koraput
<b>KCC</b>	:	Kissan Credit Card
<b>KKGC</b>	:	Kalinga Kissan Gold Card
<b>KL</b>	:	Kendu Leaf
<b>KSY</b>	:	KishoriSaktiYojana
<b>KVIB</b>	:	Khadi& Village Industry Board
<b>KVIC</b>	:	Khadi& Village Industry Commission
<b>KVK</b>	:	Krishi Vigyan Kendra
<b>KW</b>	:	Kilo Watt
<b>LAC</b>	:	Live Stock Aid Centre
<b>LAMPS</b>	:	Large Sized Adivasi Multi-Purpose Cooperative Society
<b>LCV</b>	:	Light Commercial Vehicle
<b>LFPR</b>	:	Labour Force Participantion Rate
<b>LIC</b>	:	Life Insurance Corporation
<b>LIG</b>	:	Lower Income Group

<b>LSG</b>	:	Low Spending Group
<b>MARKFED</b>	:	Marketing Federation
<b>MCL</b>	:	Mahanadi Coal field LTD
<b>MDF</b>	:	Medium Dense Forest
<b>MDG</b>	:	Millennium Development Goal
<b>MDM</b>	:	Mid-Day Meal
<b>MFP</b>	:	Minor Forest Product
<b>MHU</b>	:	Mobile Health Units
<b>MIC</b>	:	Multipurpose Identity Card
<b>MIDH</b>	:	Mission for Integrated Development of Horticulture
<b>MIS</b>	:	Management Information System
<b>MMR</b>	:	Maternal Mortality Rate
<b>MOEF</b>	:	Ministry of Environment & Forest
<b>MORD</b>	:	Ministry of Rural Development
<b>MOTA</b>	:	Ministry of Tribal Affairs
<b>MoU</b>	:	Memorandum of Understanding
<b>MPCE</b>	:	Monthly Per Capita Consumer Expenditure
<b>MPCS</b>	:	Milk Producer's Cooperative Society
<b>MPEDA</b>	:	Marine Product Export Development Agency
<b>MR</b>	:	Mandated Revenue
<b>MRP</b>	:	Mixed Recall Period
<b>MSE</b>	:	Micro & Small Enterprises
<b>MSG</b>	:	Middle Spending Group
<b>MSME</b>	:	Micro, Small & Medium Enterprises
<b>MSW</b>	:	Municipal Solid Waste
<b>MT</b>	:	Metric Ton
<b>MTPA</b>	:	Million Ton Per Annum
<b>MTW</b>	:	Medium Tube Well
<b>MU</b>	:	Million Unit
<b>MVU</b>	:	Mobile Veterinary Unit
<b>MW</b>	:	Mega Watt
<b>MWSA</b>	:	Mean Water Spread Area
<b>NABARD</b>	:	National Bank for Agriculture & Rural Development
<b>NACP</b>	:	National Aids Control Programme
<b>NADRS</b>	:	National Animal Diseases Reporting System
<b>NAFED</b>	:	National Federation
<b>NAIS</b>	:	National Agriculture Insurance Scheme
<b>NALCO</b>	:	National Aluminium Company
<b>NAM</b>	:	National Agriculture Market
<b>NBFC</b>	:	Non-Banking Finance Companies
<b>NBMMP</b>	:	National Bio Gas & Manure Management Programme
<b>NCLP</b>	:	National Child Labour Project
<b>NDC</b>	:	National Data Centre
<b>NDDP</b>	:	Net District Domestic Product
<b>NDP</b>	:	Net Domestic Product
<b>NDRF</b>	:	National Disaster Response Force

<b>NEAC</b>	:	National Environment Awareness Campaign
<b>NeGP</b>	:	National eGovernance Plan
<b>NER</b>	:	Net Enrolment Ratio
<b>NESCO</b>	:	Northern Electricity Corporation Ltd
<b>NFHS</b>	:	National Family Health Survey
<b>NFSM</b>	:	National Food Security Mission
<b>NGC</b>	:	National Green Card
<b>NGO</b>	:	Non-Government Organisation
<b>NH</b>	:	National Highway
<b>NHAI</b>	:	National Highway Authority of India
<b>NHFDC</b>	:	National Handicapped Finance Development Corporation
<b>NHM</b>	:	National Horticulture Mission
<b>NHPC</b>	:	National Hydropower Corporation
<b>NIC</b>	:	National Informatic Centre
<b>NICRE</b>	:	Non Interest Committed Expenditure
<b>NLM</b>	:	National Livelihood Mission
<b>NMMP</b>	:	National Mission on Medical Plant
<b>NMOOP</b>	:	National Mission on Oilseed and Oil palm
<b>NMSA</b>	:	National Mission for Sustainable Agriculture
<b>NOAP</b>	:	National Old Age Pension
<b>NOFN</b>	:	National Optical Fibre Network
<b>NPA</b>	:	Non-Performing Assets
<b>NPA</b>	:	Non Performance Asset
<b>NPCBB</b>	:	National Project for Cattle & Buffalo Breeding
<b>NREGA</b>	:	National Rural Employment Guarantee Act
<b>NRHM</b>	:	National Rural Health Mission
<b>NRLM</b>	:	National Rural Livelihood Mission
<b>NRSE</b>	:	New & Renewable Source of Energy
<b>NSA</b>	:	Net Sown Area
<b>NSDP</b>	:	Net State Domestic Product
<b>NSS</b>	:	National Sample Survey
<b>NTCA</b>	:	National Tiger Conservation Authority
<b>NTFP</b>	:	Non Timber Forest Product
<b>NTPC</b>	:	National Thermal Power Corporation
<b>NULM</b>	:	National Urban Livelihood Mission
<b>NWDPPRA</b>	:	National Watershed Development Programme for Rural Areas
<b>NWFF</b>	:	National Welfare for Fishermen
<b>OAIC</b>	:	Odisha Agro Industries Corporation
<b>OBB</b>	:	Odisha Bio-diversity Board
<b>OBDA</b>	:	Odisha Bamboo Development Agency
<b>OCAC</b>	:	Odisha Computer Application Centre
<b>OCT&amp;SF</b>	:	Odisha Cooperative Tasar& Silk Federation Ltd
<b>OCZMA</b>	:	Odisha Coastal Zone Management Authority
<b>ODRAF</b>	:	Odisha Disaster Rapid Action Force
<b>OERC</b>	:	Odisha Electricity Regulatory Commission
<b>OF</b>	:	Open Forest

<b>OFDC</b>	:	Odisha Forest Development Corporation
<b>OHPC</b>	:	Odisha Hydro Power Corporation Ltd
<b>OLIC</b>	:	Odisha Lift Irrigation Corporation
<b>OMC</b>	:	Odisha Mining Corporation
<b>OMFED</b>	:	Odisha State Cooperative Milk Producer's Federation Ltd
<b>OPERP</b>	:	Odisha Public Enterprises Reform Programme
<b>OPGC</b>	:	Odisha Power Generation Corporation
<b>OPOLFED</b>	:	Odisha State Poultry Producer's Cooperative Marketing Federation ltd
<b>OPSC</b>	:	Orissa Public Service Commission
<b>OPSIP</b>	:	Odisha Power Sector Improvement Project
<b>OPTCL</b>	:	Odisha Power Transmission Corporation Ltd
<b>OREDA</b>	:	Odisha Renewable Energy Development Agency
<b>ORHDC</b>	:	Odisha Rural Housing Development Corporation
<b>ORMAS</b>	:	Odisha Rural Development & Marketing Society
<b>ORSAC</b>	:	Odisha Space Application Centre
<b>OSAC</b>	:	Odisha Space Application Centre
<b>OSCARD</b>	:	Odisha Cooperative Agriculture & Research Development
<b>OSCDC</b>	:	Odisha State Cashew Development Corporation
<b>OSCHC</b>	:	Odisha State Cooperative Handicraft Corporation
<b>OSDC</b>	:	Odisha State Data Centre
<b>OSEMS</b>	:	Odisha State Employment Mission Society
<b>OSFC</b>	:	Odisha State Finance Corporation
<b>OSFDC</b>	:	Odisha State Finance Development Corporation
<b>OSRP</b>	:	Odisha State Road Project
<b>OSSC</b>	:	Odisha State Seed Corporation
<b>OSSOPCA</b>	:	Odisha State Seeds and Organic Products Certification Agency
<b>OSWAB</b>	:	Odisha State Welfare Advisory Board
<b>OSWAN</b>	:	Odisha State wide Area Network
<b>OSWAS</b>	:	Odisha Secretariate Workflow Automation System
<b>OTIDA</b>	:	Odisha Transport Infrastructure Development Authority
<b>OTRAC</b>	:	Odisha Transport Regulatory & Advisory Council
<b>OUAT</b>	:	Odisha University of Agriculture & Technology
<b>OWDM</b>	:	Odisha Watershed Development Mission
<b>P.M.J.D.Y</b>	:	PrimeMinister Jan Dhan Yojana
<b>PACS</b>	:	Primary Agricultural Cooperative Society
<b>PCCF</b>	:	Principal Chief Conservator of Forest
<b>PCI</b>	:	Per capita income
<b>PDD</b>	:	Project Design Document
<b>PDS</b>	:	Public Distribution System
<b>PFCS</b>	:	Primary Fisherman Cooperative Society
<b>PGCIL</b>	:	Power Generation Corporation of India Ltd
<b>PGR</b>	:	Poverty Gap Ratio
<b>PHC</b>	:	Public Health Care
<b>PHDMA</b>	:	Poverty & Human Development Monitoring Agency
<b>PLF</b>	:	Plant Load Factor
<b>PLI</b>	:	Postal Life Insurance

<b>PMEGP</b>	:	Prime Minister Employment Generation Programme
<b>PMGSY</b>	:	Pradhan Mantri Gram Sadak Yojana
<b>PMJJBY</b>	:	Pradhan Mantri Jeevan Jyoti Bima Yojana
<b>PMKSY</b>	:	Pradhan Mantri Krishi Sanchay Yojana
<b>PMMY</b>	:	Pradhana Mantri Mudra Yojana
<b>PMRY</b>	:	Prime Minister Rojgar Yojana
<b>PMSBY</b>	:	Pradhanmantri Surakshya Bima Yojana
<b>P-PAS</b>	:	Paddy Procurement Automation System
<b>PPCS</b>	:	Primary Poultry Co-operative Society
<b>PPP</b>	:	Public Private Partnership
<b>PSE</b>	:	Public Sector Enterprises
<b>PSU</b>	:	Public Sector Undertaking
<b>PTG</b>	:	Primitive Tribal Group
<b>PTS</b>	:	Public Telephone Services
<b>PVTG</b>	:	Primitive vulnerable Tribal Group
<b>PWCS</b>	:	Primary Weavers Cooperative Society
<b>R&amp;D</b>	:	Research & Development
<b>RBI</b>	:	Reserve Bank of India
<b>RBSK</b>	:	Rastriya Bal Swasthya Karyakrama
<b>REC</b>	:	Rural Electrification Corporation
<b>REGP</b>	:	Rural Employment Generation Programme
<b>RGGVY</b>	:	Rajiv Gandhi Gram Vidyutikaran Yojana
<b>RHA</b>	:	Rehabilitation of Handicraft Artisans
<b>RIDF</b>	:	Rural Infrastructure Development Fund
<b>RIEC</b>	:	Regional Imbalance Enquiry Commission
<b>RKBY</b>	:	Rastriya Krishi Bima Yojana
<b>RKSK</b>	:	Rastriya Kishore Swasthya Karyakrama
<b>RKVY</b>	:	Rastriya Krishi Vikas Yojana
<b>RLIP</b>	:	River Lift Irrigation Points
<b>RLTAP</b>	:	Revised Long Term Action Plan
<b>RMC</b>	:	Regional Cooperative Marketing Society
<b>ROR</b>	:	Record of Right
<b>RPLI</b>	:	Rural Postal Life Insurance
<b>RPRC</b>	:	Regional Plant Resource Centre
<b>RRB</b>	:	Regional Rural Banks
<b>RRTTS</b>	:	Regional Research & Technology Transfer System
<b>RTE</b>	:	Right to Education
<b>RTI</b>	:	Right to Information
<b>RTO</b>	:	Regional Transport Officer
<b>RTTS</b>	:	Research and Technology Transfer Sub-station
<b>RVEP</b>	:	Remote Village Electrification Programme
<b>RVP</b>	:	River Valley Project
<b>RWSS</b>	:	Rural Water Supply & Sanitation
<b>S/W</b>	:	Soft ware
<b>SAMS</b>	:	Student Academic Management System
<b>SBM</b>	:	Swachha Bharat Mission

<b>SC</b>	:	Scheduled Caste
<b>SCA</b>	:	Special Central Assistance
<b>SCERT</b>	:	State Council Education Research Training
<b>SCIF</b>	:	State Crop Insurance Fund
<b>SCST</b>	:	State Council on Science & Technology
<b>SCSTRI</b>	:	Scheduled Caste & Scheduled Tribe Research Institute
<b>SCW</b>	:	State Commission for Women
<b>SDC</b>	:	State Data Centre
<b>SDRF</b>	:	State Disaster Response Fund
<b>SEM</b>	:	Self Employment Mission
<b>SEZ</b>	:	Special Economic Zone
<b>SFAC</b>	:	Small Farmers Agribusiness Corporation
<b>SGSY</b>	:	Swarna Jayanti Gram Swaraj Yojana
<b>SHDP</b>	:	State Highway Development Project
<b>SHG</b>	:	Self Help Group
<b>SHM</b>	:	Soil Health & Management
<b>SIDBI</b>	:	Small Industry Development Bank of India
<b>SJSRY</b>	:	Swarna Jayanti Sahari Rojgar Yojana
<b>SLBC</b>	:	State Level Banker's Committee
<b>SLCC</b>	:	State Level Coordination Committee
<b>SNP</b>	:	Supplementary Nutrition Programme
<b>SOAP</b>	:	State Old Age Pension
<b>SOUTHCO</b>	:	Southern Electricity Corporation Ltd
<b>SPCB</b>	:	State Pollution Control Board
<b>SPV</b>	:	Special Purpose Vehicle
<b>SRS</b>	:	Sample Registration System
<b>SSA</b>	:	Sarva Sikshya Abhiyan
<b>SSI</b>	:	Small Scale Industries
<b>SSNP</b>	:	Social Safety Net Programme
<b>ST</b>	:	Scheduled Tribe
<b>STA</b>	:	State Transport Authority
<b>STD</b>	:	Sexually Transmitted Disease
<b>STD</b>	:	Subscriber's Trunk Dialing
<b>STEP</b>	:	Support to Training & Employment Programme
<b>STL</b>	:	Soil Testing Laboratories
<b>STPF</b>	:	Special Tiger Protection Force
<b>STPI</b>	:	Software Technology Park of India
<b>STW</b>	:	Shallow Tube Well
<b>SVL</b>	:	State Veterinary Laboratory
<b>SVRC</b>	:	State Variety Release Committee
<b>T&amp;D</b>	:	Transmission & Distribution
<b>TCS</b>	:	Tata Consultancy Services
<b>TED</b>	:	Turtle Extruder Devises
<b>TFG</b>	:	Tenant Farmers Group
<b>TFR</b>	:	Total Fertility Rate
<b>TISCO</b>	:	Tata Iron & Steel Company



<b>TMT</b>	:	Thousand Metric Ton
<b>TOF</b>	:	Trees Outside Forest
<b>TPS</b>	:	Thermal Powr Station
<b>TRYSEM</b>	:	Training for Rural Youth for self-Employment
<b>TSC</b>	:	Total Sanitation Campaign
<b>TSP</b>	:	Tribal Sub Plan
<b>TSSC</b>	:	Telecom Sector Skill Council
<b>TTF</b>	:	Travel & Tourism Fair
<b>UEE</b>	:	Universal Elementary Education
<b>ULB</b>	:	Urban Local Body
<b>UNDP</b>	:	United Nation Development Programme
<b>UPS</b>	:	Usual Principal Status
<b>UPSS</b>	:	Usual Principal & Subsidiary Status
<b>UR</b>	:	Unemployment Rate
<b>URP</b>	:	Uniform Recall Period
<b>USEP</b>	:	Urban Self Employment Programme
<b>UWEP</b>	:	Urban Wage Employment Programme
<b>VAL</b>	:	Vedanta Aluminium Ltd
<b>VAT</b>	:	Value Added Tax
<b>VCTC</b>	:	Voluntary Counselling & Testing Centre
<b>VDF</b>	:	Very Dense Forest
<b>VRS</b>	:	Voluntary Retirement Scheme
<b>VSS</b>	:	VanaSarankshanSamiti
<b>WCD</b>	:	Women & Child Department
<b>WDF</b>	:	Watershed Development Fund
<b>WESCO</b>	:	Western Electricity Supply Corporation Ltd
<b>WFP</b>	:	World Food Programme
<b>WHO</b>	:	World Health Organisation
<b>WLI</b>	:	Wild Life Institute of India
<b>WODC</b>	:	Western Odisha Development Council
<b>WORLP</b>	:	Western Odisha Rural Livelihood Project
<b>WPR</b>	:	Worker Population Ratio
<b>WSHG</b>	:	Women Self Help Groups
<b>WTM</b>	:	World Tourism Mart
<b>WTO</b>	:	World Trade Organization

# Odisha Overview

Sl. No.	Indicator	Year	Unit	Amount/value
1	Geographical Area	2015-16	Sq. KM	155707
2	Districts	2015-16	Number	30
3	Subdivisions	2015-16	Number	58
4	Tehsils	2015-16	Number	317
5	C.D. Blocks	2015-16	Number	314
6	Urban Local Bodies	2015-16	Number	111
7	Gram Panchayats	2015-16	Number	6802
8	Villages (Inhabited)	2011	Number	47677
9	Villages (unhabited)	2011	Number	3636
10	Total Villages	2011	Number	61313
11	Total Population	2011	000'	41974
12	Urbanisation	2011	Percent	16.7
13	Sex Ratio	2011	Female per 000' Male	979
14	Literacy Rate	2011	percent	72.9
15	Density per sq.KM population Density	2011	Sq.K.M.	270
16	GSDP at current market price( 2011-12 base)	2015-16 (1 <sup>st</sup> R)	Rs. Lakh	34188733
17	GSDPat constant market price (2011-12 base)	2015-16 (1 <sup>st</sup> R)	Rs. in Lakh	29122687
18	Growth Rate at constant market price(2011-12 base )	2015-16 (1 <sup>st</sup> R)	percent	6.01
19	Growth Rate at constant market price(2011-12 base ) ( anticipated)	2016-17 (A)	percent	7.94
20	Share of Agriculture sector to GSDP at current basic price	2016-17 (A)	percent	19.91
21	Share of Industry sector to GSDP at current basic price	2016-17 (A)	percent	36.56
22	Share of Service sector to GSDP at current basic price	2016-17 (A)	percent	43.53
23	Per Capita Income (Base2011-12)at constant market price	2016-17 (A)	Rupees	61678
24	Un employment Rate(UPS)by labour Bureau	2013-14	percent	6
25	Poverty Ratio	2011-12	percent	32.59
26	Poverty Ratio(projected)	2015	percent	28.86
27	Production of Food grains	2015-16	000,M.T	6,418
28	Irrigation potential created	2015-16	000,hect.	5474.38
29	Forest Cover	2015-16	percent	37.34
30	Credit Deposit Ratio	2015-16	percent	74.85
31	Total Installed Capacity	2015-16	Mega watt.	5594
32	Total number of registered vehicles	2015-16	Number	54,90,664
33	Tele density (over all)	2015-16	Ratio	69.09
34	Dropout Rate at Primary Schools	2015-16	percent	2.82
35	IMR	2015-16	Per 000,live births	40
36	MMR	2013	Per 000,live births	2.22

## Key Achievements of Odisha

- **Agriculture:** Direct Benefit Transfer (DBT) of seed input subsidy, the only of its kind in the country, is implemented in the State from Khariff 2016 to bring greater transparency and efficiency in the manual process. About 3.49 lakh beneficiaries are benefited and an amount of Rs 28.36 crore seed subsidy has been disbursed during Kharif 2016.
- Forest & Environment Department, Odisha adopted “Revitalizing Forest Ecosystems – Soil & Moisture Conversation Approach” to combat the emerging challenges of climate change. It covered 70 forest Ranges of Odisha in 2016-17 with positive results already recorded in Bargarh, Chandaka wild life, Paralakhemundi, Mahanadi wild life and Satakosia wild life Divisions.
- With the signing of MoU with World Fish International Organisation, Odisha started new initiatives in fishery sector on capacity building for fishery Officers, carp Mola polyculture and reservoir fishery development in the State.
- **PDS:** The Paddy Procurement Automation System (P-PAS) operates across all the 295 paddy procuring blocks of the State covering about 2500 PACS/LAMPCS that helps the farmers to get their payments within three to four days. The supply chain Automation system Application Software has been utilized in 204 godowns, out of 219 centers,
- Food Supplies and Consumer Welfare Department has planned to automate 14000 + fare price shops (FPS) in the state by March, 2017 as the last mile connectivity of end to end computerization aimed at transforming TDPS operations.
- **Industry:** Go-iPLUS, a wave enabled GIS based industrial land use and infrastructure information system is launched to help the investors to select an area of land. The system provides detail information about the key attributes of existing industries operational in a particular cluster such as sector soft operation, products, capacity, employment and raw-material etc.
- Industry Department has developed the “ Central Inspection Frame Work for Industry “ – to ensure synchronized single inspection by three inspecting authorities of the State, namely ; Labour Commissioner, Pollution Control Board, Factories & Boilers.
- “Invest Odisha” is the newly launched mobile App developed by the Department to provide all information for a new investor for doing business in Odisha.
- **Infrastructure:** Works Department, Odisha successfully set up Asset Management System with G.P. with application of e-nirman software and soil stabilization technique to monitor all the improvement and repair of road work scientifically. The pilot project on use of fly-ash pre-fab structures shall ensure reduced cost of construction of buildings .
- The State Government signed MoUs with Ministry of Railway in October 2016 for two new project ( i) Jeypore –Malkanagiri (130 kms.) and (ii)Nabarangpur – jaypore (38 kms) to bring railway connectivity to Malkangiri and Nabarangpur for the 1<sup>st</sup> time.
- 578 buses ply under Biju Gaon Gadi Yojana connecting 463 GPs of the State in 2016–17. 109 empanelled Driving Training Institutes for LMV all over Odisha and One for HMV ( under PPP mode) at Chatia, Cuttack impart training to generate quality drivers and employability among youth workforce.
- **SC/ST Development:** Under the newly launched ANVESHHA scheme that ensures to educate SC/ ST students from standard I-XII with free of cost along with free of accommodation, 8197 students were

admitted to Class – I & II in last 2 years. Under AKANSHYA scheme , two urban hostel complexes with 500 capacity in each have been constructed in Bhubaneswar to provide free accommodation to the SC/ST students of Post-Matric level.

- The ST & SC Development Department, Odisha implements solar energy based electrification scheme to provide efficient and sustainable solar energy based solution to 250 inaccessible ST villages and 500 tribal schools over a period of 4 years at a cost of Rs 84 crore.
- **Science & Technology:** Odisha State Data Policy has been adopted to facilitate easy accessibility ,effective sharing and efficient utilization of the large amount of data generated and stored in disparate mode among the different entities of the State Government. Science & Technology Department
- Government of Odisha received Geospatial World Excellence Award by Geospatial World Forum (GWF) and “ Special Achievement in GIS (SAG) Award by ESRI for the exemplary work done by ORSAC.
- **Skill Development :** Odisha Skill Development Authority has been constituted to select, coordinate, supervise and integrate different training programmes of different Departments to suit the need of the changing industrial and business scenario.
- **Rural Development :** Panchayat Raj Department adheres to best practices in the rural housing construction sector by tagging each beneficiary to the designated Officer/reputed CBO/NGO ; partnering with CSIR-Central Building Research Institute, UNDP, CSDCI; developing housing typologies based on local needs; construction of prototype houses and developing dedicated State Rural House Portal.
- **Education:** The State Government created four new Universities during 2015-16 namely Ramadevi Women’s University, Bhubaneswar, Gangadharmehar University Sambalpur, Khalikote university, Berhampur and State Open University, Sambalpur in order to ensure expansion, excellence and equity in higher education. With this the State has now eighteen Universities including four private Universities.
- Under RUSA Programme with center-state share is on 60:40 basis, 141 institutions were funded in the State. Eight model degree Colleges are established in Boudh, Deogarh, Malkanagiri, Nabarangpur, Nayagarh, Nuapada, Rayagada and Sonepur to improve Gross Enrollment Ratio.
- Kalinga Sikshya Sathi Yojana provides education loan from the scheduled Banks up to Rs. 10.00 lakh to professional/technical students in form of interest subvention at 1 percent per annum and the rest interest amount will be paid by Government in Higher Education Department to the concerned Banks.
- Under Green Passage orphan students pursuing higher education from +2 to Post Graduate level will no longer have to bear the educational expenses.
- 15,000 Laptops are being distributed each year to meritorious +2 pass out students under “Biju Yuba Sashakti Karan Yojana”.
- Girl students receive self defence training under “State Youth Policy Programme
- **Energy:** OPTCL has started construction of the state-of-art compact Gas Insulated Sub-Station(GISs) with automation features.

- Under State Capital Region Improvement of Power System (SCRIPS) Scheme, under-ground cabling at different voltage levels are being executed to replace the old existing overhead system in the twin-city of Bhubaneswar & Cuttack to ensure quality and uninterrupted power supply
- The State Government initiated “UJJWAL” in April, 2016 to improve quality and basic competency of the elementary school students. The Government provided bi-cycles to 9.81 lakh students of class IX & X with an expenditure of Rs. 255.08 crore to retain and complete the secondary level education. State Institute of open schooling has been started in all 30 District in 344 centers to discourage school drop outs.
- OREDA works on to transform the hand pump to solar energy based dual pumps for providing safe drinking water to inaccessible areas. About 6000 projects covering 3 lakh households are getting benefits from this project. OREDA also makes innovative steps to use solar water pump for sufficient irrigation.
- **Handloom :** The State project on “Design Reference Collection of Odisha Handloom” is implemented to improve the quality, range and varieties and regional design identity of fabrics and its products. and future growth of handloom product. The project has led to increase in the earning of the weavers and promotion of marketing platform of handloom product.
- **Health :** With a budget allocation of Rs 222 crore, the State Medical Corporation provides free medicines at Government Medical Institutions for critical diseases. Since May 2015, more than 2 lakh patients have been benefited.
- 592 number of ‘102 ambulance services’ and 420 number of emergency ‘108 ambulance services’ are made operational under State plan benefiting more than 14.4 lakh patients including pregnant women and sick infants.
- There has been a significant improvement in IMR in the State. The IMR of Odisha reduced from 65 in 2005-06 (NFHS-3) to 49 in 2014 (SRS). It further declined impressively to 40 in 2015-16 (NFHS-4). The under-five mortality rate (U5MR) of Odisha also reduced remarkably from 91 in 2005-06 (NFHS-3) to 49 in 2015-16 (NFHS-4). The above improvement in IMR is the outcome of the high priority initiatives of the State Government towards improvement in accessibility and delivery system of health care all over the State.

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## Overview

*Odisha's economy passes through a transformation from "a growing economy" to "an economy at take off stage". Growth rate picks up momentum with Industries and Services sectors as drivers of growth. Agriculture sector loses its importance in terms of contribution to State income while, still retaining its prime status as the livelihood provider to the maximum number of families. Pace of industrialization continues in high note with the advantage of rich natural resources and available physical and human capital in the State. Continuous improvement in "ease of doing business" has further stimulated the process. Poverty falls significantly thanks to sustained efforts of the State Government. Still there is a long way to go to achieve its complete elimination. Infrastructure development has been laudable but the need for its further upgradation is still high and urgent. Social and financial inclusion show signs of improvement but are not complete. Human development indicators have improved. Hunger and starvation are now things of the past with food security high on agenda of the Government. IMR of Odisha improved significantly to 40 in 2015-16. With impressive track record in fiscal reforms State again faces the problem of resource crunch. With a mixed baggage of strengths, weaknesses, opportunities and threats, Odisha economy marches ahead from a "State that was lagging behind" to a "State on the move".*

## 1.1 Overall Macro Scenario

The size of Odisha's economy increased by 22.27 percent in real terms (at 2011-12 prices) during the last six years, in terms of GSDP, exhibiting an annual average growth rate of 6.66 percent. The real per capita income increased from Rs.47,632 in 2011-12 to Rs.61,678 in 2016-17 at 2011-12 prices. The growth rate in economy, which was 4.61 percent in 2012-13, has picked up momentum from 2013-14 with growth rates of 8.73 percent in 2013-14, 6.00 percent in 2014-15 and 6.01 percent in 2015-16 and 7.94 percent in 2016-17. This can be attributed to sustained development initiatives and prudent macro management of economy. The economy has been witnessing structural transformation from an agriculture-based economy to services and industries driven economy. The share of the broad Agriculture sector which was around 55 percent of GSDP in 1950-51 has come down to a level of 19.91 percent by 2016-17, while the combined share of Industries and Services sectors has rose from 45 percent to 80.09 percent during the same period. By 2016-17, the Mining, Manufacturing, Trade, Transport and Real Estate sub sectors, in particular, have become the major drivers of Odisha's economy.

## 1.2 Employment

1.2.1 Employment generation has been the most important objective of successive Five Year Plans, next only to the objective of rapid economic growth. In fact economic growth without commensurate growth in employment generation will not be an acceptable development strategy as it is not compatible with the broad development goal of inclusive growth. This calls for an analysis of demand and supply for the growing labour force in the State and the consequential employment-unemployment scenario.

1.2.2 Workers - Population ratio and Labour Force Participation Rate in Odisha are 54.0 percent & 56.4 percent as against 53.7 percent and 55.6 percent at all India level as per labour bureau survey of 2013-14. The unemployment rate in Odisha was 4.3 percent in 2013-14 as against 3.4 percent in the country. Surprisingly the unemployment rates in the States like Goa, Kerala, Panjab & Delhi with high per capita income, are higher with 9.6 percent, 9.3 percent, 5.4 percent & 4.4 percent respectively. Rural Odisha absorbs higher proportion of workforce and therefore has a low unemployment rate of 3.8 percent compared to the urban area which has a higher unemployment rate of 7.3 percent during 2013-14.

1.2.3 One area of concern is that, while the share of Agriculture sector in the State GSDP has come down to a level of around 18 percent, still the sector accounts for 62 percent of the total workforce as per 2011 Census. This has resulted in lower per capita income and lower productivity of agricultural workers compared to workers of other sectors. This has also led to increase in number of marginal workers i.e. the workers those who remain idle for long periods or contribute very little in terms of activities in the farms. According to the Census results of 2011, share of marginal workers in the total workforce has increased from 33 percent in 2001 to 39 percent in 2011. This calls for urgent interventions to ensure absorption of more and more rural labour force in the non-farm sectors. Industrialization process, which is taking place in rapid pace in the State, is not enough to address this. The State Government has therefore launched a number of interventions for massive skill development to enable rural as well as

urban youths to find suitable employment in non-farm sectors within or outside the State. The successive Industrial Policy Resolutions of the State have also accorded high priority to promotion of agro-based and food processing industries in the State that can provide employment to the workers now engaged in Agriculture sector while using the agricultural produce as inputs to support growth in Agriculture sector.

1.3.1 In organized sector the total employment in the State has declined from a level of 7.01 lakh to 5.93 lakh during the period 2008 to 2015 with increase in share of private sector from 14.55 percent to 17.54 percent.

### 1.3 Agriculture Sector

1.3.1 According to sector classification under National Income Accounting, Crops, Livestock, Fishery & Forestry sub sectors constitute the broad Agriculture sector. The share of this broad Agriculture sector to GSDP of the State was less than 20 percent in 2016-17 at current prices. Out of this the share of Crop and Livestock sub sectors in the GSDP was less than 16percent, compared to an imposing 60percent in 1960's. This is a positive change as per the accepted theory on stages of economic development according to which, with economic development, share of agriculture and allied sectors in both GDP and workforce, progressively decline. But the Odisha economy has not benefited due to this positive change, as around 62 percent of the workers of the State still continue to depend on the sector for their livelihood. As a result both income and productivity of agricultural workers are lower compared to other sectors.

1.3.2 Favorable agro-climatic conditions, abundant water bodies, long coastline, availability of 11 percent of total water resources of the country spreading over 11 river basins, the State has all the favorable conditions for a vibrant and growing agriculture sector. However, there are also constraints like over-dependence on rain fed farming, inadequate irrigation facilities, low level of capital formation, over-dependence on paddy cultivation, slow modernization process, small land holdings, continued practice of old tenancy system in some areas and above all frequent occurrence of natural calamities. These constraints have prevented the sector from achieving full exploitation of the available potential.

1.3.3 The annual real growth rates of crop sub sector varied widely between a robust (+) 23.91 percent to dismal (-) 21.15 percent during last 5 years (between 2011-12 & 2015-16). The area, production and yield rates of paddy, HYV paddy and other major food grains showed upward trend in last few years with down swing in performance during the years that witnessed natural shocks like flash floods, Phailin & HUDHUD, drought etc. Food grains production has declined during 2015-16 due to severe drought in the State. Rice production constitutes about 92 percent of total food grains production. Paddy production was 89.02 lakh tone with a higher yield rate of more than 23 quintal per hectare. Paddy areas have been increasingly diverted to HYV paddy as well as cash crops making agriculture more commercially viable and remunerative for the farmers.

1.3.4 By 2015-16, irrigation potential of 54.74 lakh ha (Kharif-36.71 ha & Rabi-



18.03 ha) was created in the State including 3.20 lakh ha of additional potential, created during 2015-16 alone. The State government has launched a number of programme with projects of short gestation period like Mega Lift Irrigation Projects, Deep Bore well Construction Programme and Check Dam Construction Programme, with a view to provide quick irrigation benefit to farmers. The target is to achieve additional 10 lakh hectare of cultivable land under irrigation cover by the end of 2019. State targets to provide irrigation facility to at least 35percent of the cultivable land in each block. Out of total 314 blocks, irrigation coverage in 198 blocks is less than 35percent of the cultivable area. The schemes such as AIBP, RIDF, JBIC, RSVY, NREGS, WODC, FFW are being implemented to achieve the desired objective either directly or by way of convergence with other programmes. By March 2016, this target has been achieved in 93 blocks out of targeted 198 blocks. Out of the abundant ground water reserves of the State, it has been possible to achieve utilization level of about 28.33 percent by the end of March 2011.

## 1.4 Industry Sector

1.4.1 The broad industry sector consists of Manufacturing, Mining and Quarrying, Electricity-Gas-Water Supply & other utility services and Construction sub-sectors. The sector contributed about 36.56 percent to Odisha's GSDP at 2011-12 prices in 2016-17. The sector is expected to grow at a rate of 4.52 percent in 2016-17, mainly driven by Manufacturing & Mining sub sectors.

1.4.2 Out of total 252 large and medium industries in Odisha, as on March 2016, 162 units are engineering and metal based with an investment of Rs. 78,200.27 crore and

employing 89,199 persons. Rich mineral resources, particularly iron ore, bauxite and coal, availability of water and power and above all investor friendly policy of the State Government, has made Odisha a favoured destination for investors. Odisha is the leading State in the country in aluminum, both in terms of production and capacity. Out of the four big plants producing aluminum in the country, two are in Odisha. These are NALCO and Vedanta Aluminum Limited (VAL) (Sesa sterlite). As on March 2015, total aluminum production in Odisha was 57 percent of total production by all the four big plants, i.e., NALCO, SESA STERLITE, BALCO and HINDALCO in the country.

1.4.3 "Micro, Small and Medium Enterprises (MSME)" is a growing sector in the State. During 2015-16, the maximum numbers of MSMEs were set up in Sundargarh district, followed by Cuttack, Sambalpur, Ganjam & Khurda. Among manufacturing units, the largest number of MSME units belong to the Repairing & Services sectors followed by Textile sector. The handicraft and cottage industry in Odisha exhibits a declining trend in terms of number of units as well as employment generation. Industrial sickness continues to be a problem area for the MSMEs.

1.4.4 Mining is a core sector for the State because of vast mineral resources of the State. Odisha leads in the national mineral production of chromite (100percent) iron ore (50.0 percent), bauxite (35.2 percent), manganese (25.5 percent) and coal (20.1 percent). 13 States including Odisha, account for 95 percent of total value of mineral production in the country, out of which Odisha's share is 6.38 percent. Only Jharkhand, Chattisgarh, Andhra Pradesh, Gujarat and Rajasthan have higher share than Odisha. The mining sector contributed on an

average about 12 percent of GSDP of Odisha at 2011-12 prices during last five years. This sub-sector seems poised for rapid growth notwithstanding the current problems. One specific concern relating to the mining sector is the observed trend in adoption of more and more capital intensive and labour saving technologies for improving global competitiveness. This may result in lower growth in employment generation in the sector.

## 1.5 Services Sector

1.5.1 The Services sector with an imposing average share of 44 percent of GSDP as per 2016-17 estimates at 2011-12 prices, is the leading sector of Odisha economy. The shares of its sub-sectors are Trade (11 percent), Transport & communication (7 percent), Real Estate (8 percent), Public Administration (4.27 percent ) and Other Services like Education & Health (9.17 percent). The sector has been consistently exhibiting accelerated growth rate from a level of 6.94 percent in 2012-13 to 8.08 percent in 2016-17.

1.5.2 Banking and insurance sub-sector has been steadily growing in the State. Presently about 80 percent of all bank branches are located in rural and semi-urban areas. During 2015-16 number of bank branches grew by 9.13 percent. Total bank deposits and advances grew by 11.5 percent and 14 percent respectively. The advances to priority sector and agriculture sector increased by 26.8 and 28.4 percent respectively. The share of priority sector advance to total advances by banks remained high at 63.94 percent against the benchmark of 40 percent. Credit – Deposit ratio was maintained at 74.85 percent during 2015-16 as against the benchmark of

60 percent. Co-operative banks have been mainly focusing on rural areas and the agriculture sector. Launching of Centrally Sponsored e-platform for setting up national agriculture market by Odisha State Agriculture Marketing Board is expected to provide remunerative prices to the agriculture producers and accessibility to a wider market across the nation particularly for agricultural produce like Maize, Cotton, Onion, Coconut and Turmeric.

1.5.3 Construction sector is important for an economy like Odisha from two perspectives. First of all growth in construction activities helps in infrastructure upgradation, secondly construction activities being labour intensive, growth in this sector contributes to growth in employment generation. The share of the construction sub-sector in the Odisha's GSDP was around 8 percent as per 2015-16 estimates.

1.5.4 Tourism is a promising sector for Odisha. There still remains unutilized potential that can be exploited to achieve further growth in the sector. The State Government has been taking several measures to promote Tourism in the State. Odisha Tourism Policy 2013 and interventions like improved institutional mechanism, marketing support, expanded hotel industries has improved the tourism prospects in the State. The number of hotels in the HSG, MSG and LSG groups has been increasing in the State over last four years. Because of the said developments the sector made notable strides during 2015-16. The domestic tourist arrival from within the State and outside State increased by 2.6 times and 1.8 times respectively during the year. Efforts have also been initiated to attract more and more foreign tourists to

the State which remains less than one percent of total foreign tourist arrival in the country.

## 1.6 Infrastructure

1.6.1 Infrastructure development is required both as a means to support growth across all sectors of the economy and also as an end in directly benefiting people in improving their quality of life. Odisha has been emerging as a favored destination for investment because of its rich minerals base, availability of coal & water and above all State Government's investor friendly policy support. But the only constraint in this regard could be infrastructure limitations. State Government has been making sustained efforts to address this. A number of specific programmes are under implementation to improve road connectivity both connecting un-connected hinterlands as well as industrial hubs, improve rail network, upgrade urban infrastructure and above all create appropriate IT infrastructure for e-governance initiatives. Special programmes are being implemented for economically backward regions with focus on *Bijli, Sadak and Pani* with a view to improve quality of life of the people.

1.6.2 Odisha was the first State to introduce Power sector reforms in the country. Power sector is fairly developed in the State. The State's share in the total installed capacity is 5519 MW out of which 3671 MW is from State Sector and 1848 MW from State's share from central sector power projects. During 2015-16, 2901 MW power was available against a demand for 2934 MW. About 92 percent of villages in Odisha are now electrified. It is going to further improve due to ongoing programmes like Rajiv Gandhi Grameen Vidyutikaran Yojana, Biju Gram Jyoti and Biju Saharanchal Vidyutikaran Yojana. About 79 percent of the power

consumers belong to rural areas. Domestic consumers comprise about 92 percent of total consumers. Share of industrial power consumption is about 37 percent of total power consumption of the State followed by 38 percent consumption by domestic consumers. The area of concern however remains in the transmission and distribution (T&D) losses. The State has embarked upon an ambitious CAPEX programme to substantially improve its grid infrastructure and to bring down T&D losses.

1.6.3 With a Road density of 178 km. of road per 100 sq. km. of area (in 2012-13) Odisha is ahead of all-India average of 159 km per 100 sq.km of area. But the State has lagged behind in surface-road density. State Government has taken a number of interventions to address this. Pradhan Mantri Gram Sadak Yojana and Bharat Nirman Yojana have been implemented in the State to build all-weather surface roads. The State has also taken several initiatives to extend the spread of good quality roads and to improve the road surface quality throughout the State. An ambitious programme for increasing the number of bridges and cross drainage works has been undertaken to ensure all weather connectivity to remote habitations.

1.6.4 Railway density in the State is 16 km per thousand square km of area, which is below the national average of 20 km. With a view to expedite execution of urgently required rail routes State Government has launched new railway projects through SPVs and direct State funding. The projects to be taken up include Daspalla-Bolangir segment of Khurda-Bolangir line, Jaypore-Malkangiri and Jaypore-Nawrangpur rail links.

1.6.5 Paradeep is the only major port of the State under the administration of Government of India. State Government has identified 13

locations ideal for setting up ports in Odisha. Out of this, ports have already been set up and operationised at Gopalpur and Dhamra through State Government initiative. In May 2011, Dhamra port started commercial operations. Gopalpur port is being operated by a Private developer.

1.6.6 Tele-density, which is equal to the number of telephone connections per 100 population, has grown rapidly in the State. However, it is yet to catch up with the national average. The overall tele-density of the State by the end of March 2016 was 69.09 percent against the all India average of 83.36 percent. In case of urban tele-density, Odisha is better than the all India average. Odisha has an urban tele-density of 160 percent compared to 154 percent at the national level. However, the rural tele-density in the State is 50 percent compared to 51 percent at all India level. The State has undertaken several initiatives to improve the use of Information Technology, especially in public administration. E-governance has been taken up and enforced at various levels. Two software technology parks are in operation: one at Bhubaneswar and the other at Rourkela.

## 1.7 Poverty and Human Development

1.7.1 Poverty reduction and Human Development are the ultimate goals of all development plans. Economic growth may not always help address this goal to the desired extent, unless specific interventions are made for the purpose. Odisha has made good progress both in reducing poverty and improving human development.

1.7.2 Poverty, as it is understood today, is a multi-dimensional concept implying material, social & intellectual deprivations. But for the purpose of effective assessment in quantitative

terms, usually material deprivation is taken as the accepted yardstick in Indian context.

1.7.3 Performance of Odisha in poverty reduction front has been quite impressive keeping in view the fact that the percentage of population below poverty line in the State was as high as 67.18 percent during 1973-74 as per Lakadwala Committee Methodology, against 54.88 percent at the national level. This came down to a level of 46.40 percent by 2004-05 against 27.50 percent at the national level. Later as per the revised Tendulkar Committee Methodology the poverty level in the State and at the national level during 2004-05 were reassessed at 57.20 percent and 37.20 percent respectively. During the period from 2004-05 to 2011-12 State managed to achieve maximum poverty reduction of 24.6 percentage points from 57.2 percent to 32.6 percent. During this period Poverty declined in all regions and among all social classes (i.e., ST, SC, OBC and others) of the State. Reduction in poverty among SCs has been 26.51 percentage points while it is 20.88 for STs. Northern region has recorded highest poverty reduction with 30.53 percentage points followed by Southern region with 25.40 and Coastal region by 19.95. Poverty Gap Ratio that measures the magnitude of deprivation and helps in overall assessment of a region's progress in poverty alleviation, showed significant improvement from 17.7 in 2004-05 to 7.01 for rural areas in 2011-12. This is an impressive achievement.

1.7.4 Regional, social and general disparities in development, continues to be a major concern for the State. When seen in retrospect it is clear that all regions have not shared the gains of development in an equitable manner. With a view to addressing the problem of regional disparities and accelerating development process in the

interior tribal dominated pockets, Government has been implementing a number of development programmes with Central and State funding and has launched a number of specific initiatives. Out of these, important ones are Revised Long Term Action Plan (RLTAP), Biju KBK Plan, Biju Kandhamal O Gajpati Yojana, Gopabandhu GraminYojana (GGY), Programmes funded by Backward Regions Grant Fund (BRGF) and Programmes of Western Odisha Development Council (WODC). With the support of Government of India, State implemented Integrated Action Plan (IAP) in 18 tribal and backward districts of Odisha. These development initiatives aim at faster development of the backward regions of the State.

## 1.8 Social Sectors

1.8.1 For the planning purpose, the areas of activities like education, healthcare, drinking water facilities, sanitation, welfare of physically and mentally challenged persons, social security for people and welfare of marginalized groups and backward regions are categorised as Social Sectors. The State Government has been according high priority to these sectors in the successive Plans. This is evident from the fact that funds allocations for the Social Sectors' programmes in the successive Plans have been quite high and in the Annual Plan: 2016-17 it is as high as 40 percent.

1.8.2 Education is a core component of Human Development. State has been making steady improvement in the education front. According to 2011 Census overall literacy rate (72.9 percent) in Odisha remained at par with the national average (73 percent) registering an increase of 9.8 percentage points compared to Census 2001. Enrollment ratio in elementary (primary and upper primary) schools has considerably improved.

The gross enrollment at primary and upper primary level was respectively 91.6 percent and 107.1 percent during 2015-16. Between 2000 and 2015-16 the dropout rates fell sharply from 41.8 percent to 2.82 percent and 57 percent to 3.87 percent in primary and upper primary level respectively. Teacher-Pupil ratio has also improved from 1:35 to 1:25 for primary level and from 1:33 to 1:23 for upper primary level during the period from 1997-98 to 2015-16. There has been good improvement in case of Secondary Education as well. Dropout rate has come down from a level of 52.27 percent in 1998-99 to 6.02 percent in 2015-16.

1.8.3 The school infrastructures have also been significantly improved during the past years. The State Government has addressed the issue of education for girls and SC&ST communities with high priority. About 1670 Schools, Girls Schools, Residential Schools, Sevashrams, Training Institutes, Educational Complex for Primitive Tribal Groups (PTG) are functioning in the State. By March 2016, 3067 hostels have been completed for SC & ST students. The ST & SC Development Department has also been constructing 5 urban hostel complexes, 3 in Bhubaneswar with 200 capacity, one in Rourkela and one in Berhampur city, each with 300 capacities. A large number of vocational and technical institutions have come up during the last few years to help equip the youth with employable technical and soft skills. National level institutes like IIT Bhubaneswar, National Institute of Science Education and Research, the Central University at Koraput and the National Law University at Cuttack, IIM at Sambalpur have been set up in the State. Odisha Knowledge Corporation has been established to expand e-education among the youth.

1.8.4 Health is also a critical component of human development. Improved health is desirable not only in itself but also because it leads to enhanced capacity to work and participate in economic activities. The State Government has taken several steps to improve health care facilities in the State in terms of accessibility, service delivery and infrastructure facilities.

1.8.5 Sustained initiatives of the State Government have improved most of the health sector parameters. Life expectancy at birth has improved from 62.3 years during 2006-10 to 64.3 years during 2011-15 in case of male and from 64.8 years to 67.3 years for female. As per national health Profile, 2008 life expectancy at birth of male and female in Odisha during 2016-20 has been projected at 66.3 years and 69.6 years respectively compared to the corresponding figures of 68.8 years and 71.1 years respectively for the country. The crude birth rate in the State has improved to 19.6 per thousand populations against the national average of 21.4 in 2013. Institutional deliveries have increased to 89 percent in 2014-15. The pregnancy burden of women in the State is lower than that of their counterparts in the country. During the year 2014, the General Fertility Rate (GFR) in Odisha stood at 71.2 percent compared to 80.3 percent at the all India level. While, there has been steady improvement over the years still there is a need to further reduce vital health parameters like Crude Death Rate (8.4), Infant Mortality Rate (49), Maternity Mortality Ratio (2.22).

1.8.6 There has been substantial improvement in the infrastructure and support services in the health care sector. Average population served for Government hospital in the State stands at 23,884 compared to 61,011 at the national level as on 1<sup>st</sup> January, 2015. National Health Mission (NHM) is responsible for effective implementation of programmes like Reproductive Child Health, Immunization, National Disease Control

Programme, and Integrated Disease Surveillance Project. NHM also implements a series of Central and State sponsored health care programmes that include ASHA, First referral Units, Janani Surakshya Yojana, Janani Sisu Surakshya Karyakram, Rastriya Bal Swasthya Karyakram (RBSK), Rastriya Kishor Swasthya Karyakram (RKSK), Newborn Care Corner, Nutrition Rehabilitation Centres etc. Institutional mechanisms in the form of rehabilitation centres, sub centres, adolescent friendly health clinics, zilla swasthya samities, rogi kalyan samities, gaon kalyan samities, new born care units, urban health centre, City Program Management Unit, city health society, city health mission, mahila arogya samiti, ward kalyan samiti, mobile health unit etc have been set up and strengthened for better delivery and access of rural poor to health care services. NHM also integrates all national disease control programme with the help of State machineries. The State Government has been implementing Panchvyadhi scheme since 2001, to provide free treatment and medicines for four highly prevalent diseases in the State. Various government health programmes have brought down the disease burden in the State. Leprosy has declined to less than 1 per 10,000 population and filaria has been controlled. Malaria is endemic in some parts of the State. The number of malaria positive cases in the State increased to 3.95 lakh in 2014 as against 2.28 lakh in 2013. HIV positive cases have declined remarkably from 3,255 by March 2013 to 3008 by March 2016.

1.8.7 Odisha's performance has been satisfactory in respect of access to safe drinking water. Coverage of households having access to safe drinking water (taps, handpumps and tube-wells) was 75.3 percent as per the 2011 census. The Integrated Management Information System (IMIS) reports that only 2.7 percent rural habitations in Odisha were not covered under drinking water supply programmes in 2009. The Total

Sanitation Campaign (TSC) has been implemented to provide toilets in rural areas and encourage people to improve their sanitation conditions. Physical achievements under this programme have been encouraging. By March 2016, 14, 60,757 IHLS have been constructed under Swchha Bharat Mission.

1.8.8 Hunger and malnutrition has all along been a serious concern of the State Government. Particularly mal-nourishment among children has serious implications in the context overall development initiatives of the State. State Government has been implementing a number of programmes to address malnutrition among children, mothers and old, infirm and destitute persons. These initiatives include Integrated Child Development Scheme (ICDS), Mid Day Meal Scheme, Rehabilitation of Cured Leprosy Patients, Emergency Feeding Programme and provision of heavily subsidized rice at the rate of Rs. 1 per kg for the BPL population.

1.8.9 Social security among economically weaker sections remains a priority concern of the State Government. Programmes / schemes under implementation, both with Central and State funding to provide social security to the poor, old and destitutes, include Indira Gandhi National Old Age Pension, Madhu Babu Pension Yojana, National Family Benefit scheme, National Social Assistance Programme, Indira Gandhi National Widow Pension Scheme, Indira Gandhi National Disability Pension Scheme, Old Age Homes Day Care Centers etc. For the welfare of the persons with disabilities State Government is implementing schemes like skill development, promotion of special schools, self employment and rehabilitation of persons cured of leprosy/Hansen's disease, provision of differential rate of interest in loans for self-employment, reservation in poverty alleviation schemes,

working women's hostel for PwDs, provision of special aids and appliances, mission kshyamata, Bhima Bhoi Bhinnakshyama Samarthya Aviyan etc.

1.8.10 There exist gender disparities in Odisha in some human development indicators. Only 64.01 percent of the female population is literate in comparison to about 81.59 percent of the male population in Odisha. The male literacy rate in Odisha is little higher than the national average while female literacy rate is marginally lower. Women constitute about 45 percent of the total workforce in Odisha. Employment of women in the organized sector has, however, been rising in recent years. The present strategy of the State to empower and develop women is a step in the right direction. About 5.95 lakh Women Self-Help Groups (WSHGs) with savings amount of Rs 575.69 crore have been operating with support provided through Mission Shakti programme. The State Commission for Women has been functioning with the mandate of protecting the interests of women and preventing violence against them. The Odisha State Social Welfare Advisory Board (OSWAB) provides grants to voluntary organizations for welfare of women and children. The ST and SC communities are largely marginalized sections of the society. Their development has received focused attention by the Central as well as the State governments. The Tribal Sub-Plan approach in the State ensures greater focus on tribal dominated 118 blocks of the State. Special Central Assistance (SCA) is provided for accelerated development of tribal communities including Particularly Vulnerable Tribal Groups (PVTG).

## 1.9 Public Finance

1.9.1 Finances of Odisha are on a sound base. The prudential policy of maintaining revenue account surpluses to finance the capital outlays has been consistently followed thereby reducing the need for incurring fresh debt as also providing the fiscal space to enhance capital expenditure for development of the State. Guided by the rolling targets of the Medium Term Fiscal Plan, an obligation under the Fiscal Responsibility and Budget Management Act of the State, key fiscal parameters were kept within permissible range, meeting conditionalities of the 13<sup>th</sup> and 14<sup>th</sup> Finance Commission of India.

The FRBM (Amendment) Act, 2011 has made it mandatory for the State to generate revenue surplus, keep the fiscal deficit within 3% of GSDP, achieve Debt/GSDP ratio (25%) at Finance Commission recommendation level. Further, Fourteenth Finance Commission in Fiscal Consolidation Roadmap have set fiscal deficit targets for States. It allows additional 0.25% of fiscal deficit, if the debt-GSDP ratio is less than or equal to 25% in the preceding year and another 0.25% if the interest payments are less than or equal to 10% of the revenue receipts in the preceding year provided there is no revenue deficit in the year in which borrowing limits are to be fixed and the immediately preceding year.

The State Government have amended the FRBM Act, 2005 on the basis of the recommendation of the 14th Finance Commission so that the enhanced Fiscal Deficit limit can be availed to finance higher capital outlay.

The State finances have come a long way from the stage of unsustainable fiscal deficit and debt levels to much below the prescribed threshold deficit and debt levels of 3% of GSDP and 25% of GSDP respectively. For the financial year 2015-16, the fiscal deficit stood at 2.07% of GSDP and year end debt stock was 15.21% of GSDP. The State has also taken several public financial management reform measures for more effective and efficient management of public finances.

1.9.2. Odisha is among few States that present a separate Agriculture Budget. The budget is prepared separately since 2013-14 for the Departments dealing with irrigation, agriculture, co-operation, fisheries and animal resources development. Agriculture Cabinet has been formed to fast track focused policy decisions for development of Agriculture and Allied Sectors. The outlay for the Agriculture Budget has been increased at an average rate of about 20% from 2013-14 onwards. It is aimed at addressing the twin challenges of rural poverty and regional disparity.

Developmental expenditure covering the social and economic sectors is now about 75% of total expenditure excluding debt repayment for 2015-16. Similarly, capital outlay has been increased by more than three times between 2012-13 to 2015-16.

The overall fiscal situation of the State is stable. It is capable of managing fiscal risks and continue with the prudent fiscal management policy keeping intact the thrust on socio-economic development for inclusive growth.

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# 2

## Odisha's Economy: A Macro Glance

*The national economy is currently showing a modest growth rate averaging at 6.84 percent during 2012-13 to 2016-17. During said period the state's growth rate has remained positive averaging at 6.66 percent. During 2016-17 the state economic has registered GSDP growth rate at 7.94 percent, thus surpassing all India growth rate of 7.1percent. Due to modest monsoon in current year, the agriculture production and productivity picked up in the State, which resulted in higher economic growth.*

*The other economic parameters like Government expenditure, Gross Fixed Capital Formation (GFCF), Inflation, Labour force participation rate, Monthly Per capita Consumption Expenditure exhibited distinct signs of improvement. Government's total expenditure stood at 18.48 percent of GSDP in 2011-12 and it has been estimated to increase to 24.82 percent GSDP in 2016-17 (BE). The capital expenditure was 3.27 percent of GSDP in 2011-12, which increased to 5.17 percent of GSDP in 2016-17. Estimate of GFCF at current prices for public sector reveals upward trend and its share to GSDP varied between 8.00 percent and 18.47 percent during the period from 2004-05 to 2010-11.*

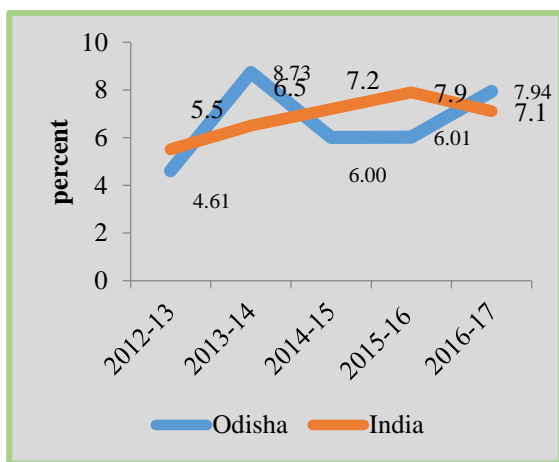
*The CPI (general index) of the state increased to 126 during 2015-16 compared to 118 in 2014-15. The Labour force participation rate (LFPR) is estimated at 56.4 percent in the State in 2013-14, while the corresponding figure at all India level was 55.6 percent. The growth in employment in organized sector (CAGR) has decreased by 2.1 percent from 2004 to 2015, while it is up by 1.4 percent in case of private sector. Over the years diversification in the consumption pattern of the people has taken place both in rural and urban economy. Consequent upon demonitization measure initiated by Govt. of India in November 2016, the Economic Survey Report of Government of India 2016-17 has predicted slow down in growth rate of National economy, which in turn, may have effect on State economy.*

## 2.1 Economic Growth

2.1.1 Economic growth is the most basic requirement for reducing poverty and improving quality of life of people. While equity consideration is important to ensure that growth is inclusive never the less the role of economic growth, which is increase in Gross State Domestic Product (GSDP) in real terms, cannot be overemphasized in improving the standard of living of people and generating employment.

2.1.2 As per the Advance Estimates (AE) released by the DES, Odisha's economic growth in terms of real GSDP recovered to respectable level of 7.94 percent in 2016-17 at 2011-12 base (market price) reversing the sharp decline of 6.01 percent that had occurred in 2015-16. The AE were worked out based on data available upto November, 2016. The growth was higher than the 7.1 percent recorded at National level (Figure-2.1). The major highlight of accelerated growth was the modest pick up in agriculture production due to improved monsoon.

**Trends in Real Growth Rate**



[Figure 2.1]

Source: DES, Odisha

2.1.3 As per GSDP estimates at 2004-05 base, the state economy has been passing

through a high growth trajectory in recent years after lagging behind the national economy in several decades in the past. The real GSDP of Odisha has grown by an annual average rate of 4.2 percent during the period from 1951 to 2011 against all India average of 4.9 percent at 2004-05 base. From 2003 onwards, the state reflected more acceleration in growth rate and registered robust growth of above 8 percent as against the national average of 7.5 percent, thus became a major growing economy in the country.

2.1.4 With the shifting of base year from 2004-05 to 2011-12, the new series on state income accounts incorporate latest data available from surveys and census, new economic activities, expansion of coverage of activities and improvement in procedures following recommendations of System of National Accounts, 2008. Accordingly the economic growth of the state in terms of GSDP at market price, has been averaging at 6.66 percent from 2012-13 to 2016-17 against all India average of 6.84 percent during the period. During 2015-16, the decline in agriculture of growth was due to erratic monsoon and proved to be a major drag on State's economic growth in 2015-16 and thus affected average growth of economy. During said period, the growth rates in leading states like Andhra Pradesh, Assam, Telengana, Bihar, Gujarat, Punjab, Karnataka and Uttar Pradesh were on an average 6.89, 3.12, 6.73, 9.13, 8.95, 5.52, 6.84 and 4.92 percent respectively. Year wise GSDP and NSDP from 2011-12 to 2016-17 with growth over previous year both at current and constant (2011-12) prices are at Annexure 2.1.1 and 2.1.2 and National income at Annexure 2.2.1 and 2.2.2.

## 2.2 Per capita Income (PCI)

2.2.1 The change in base year has pushed up the real per capita income of the state to Rs.47,632 in 2011-12, while it was Rs.24,134 based on estimate of old series. The per capita income stood at Rs.49,543, Rs.52,551 and Rs.54,926 in 2012-13, 2013-14 and 2014-15 respectively. It reached the level of Rs.61,678 in 2016-17 against Rs.57,616 in the year before i.e., during 2015-16, which accounted for 7.05 percent rise. India's real per capita income rose by 6.5 percent with Rs.81,805 in 2016-17 compared to Rs.77,524 in the preceding year of 2015-16. The per capita income of India appeared to be 1.3 times higher than Odisha.

2.2.2 As regards per capita income of the major states for 2014-15 at constant (2011-12) prices based on GSDP estimate of 2015-16, the bottom three states were Madhya Pradesh (Rs.41,336), Uttar Pradesh (Rs.35,072) and Bihar with lowest per capita income of Rs.26,736 in 2014-15, while top three were Kerala (Rs.1,15,225), Uttarakhand (Rs.1,20,759) and Haryana (Rs.1,24,092). This indicates striking income disparity between rich and poor states. The PCI of Haryana, the richest state, is 4.6 times higher than Bihar, the poorest state, while it is 3.5 times higher than UP and 3 times higher than MP. The sharp income disparity across states is also evident as coefficient of variation (CV) of PCI for 28 states reached the peak level of 58 percent in 2011-12, but it has declined gradually to 52.7 percent in 2014-15 and 52.5 percent in 2015-16. State wise PCI, both at current and constant prices are at Annexure 2.7.1 and 2.7.2 respectively.

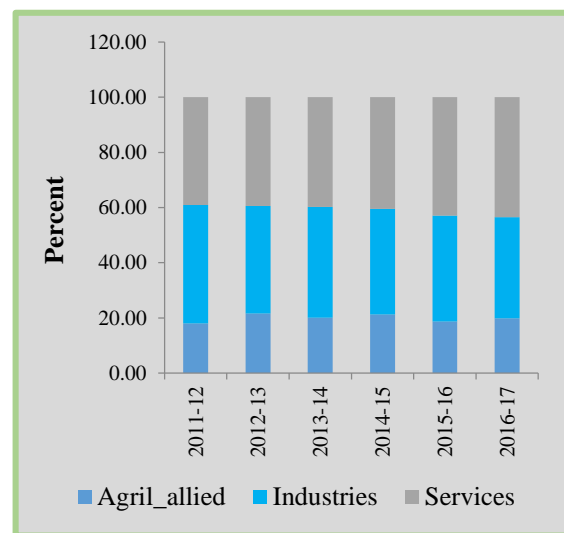
## 2.3 Structure of Economy

2.3.1 In terms of size of economy, the real GSDP at 2011-12 prices stood at Rs.227.87

thousand crore in 2011-12 and rose to Rs.314.36 thousand crore in 2016-17, showing a growth of 7.94 percent compared to 2015-16. The size of economy at new base is much higher compared to Rs.130.66 thousand crore at 2004-05 prices in 2011-12. In spite of growth in state economy, the average contribution of the state to all India GDP has declined from 4.14 percent in 1950-79 to 2.5 percent in 2011-16, which may be due to increased contribution of some other states.

2.3.2 For the purpose of state income accounting, the economic activities have been grouped into three broad sectors, namely Agriculture & allied, Industries and Services. The shares of these broad sectors at 2011-12 prices are given in Figure 2.2. Both industries and services sectors, accounting for more than four-fifths of GSDP, continued to be the largest contributors to economic growth. The share of industries sector was 43 percent in 2011-12 and it declined to 36.56 percent in 2016-17.

**Sectoral Contribution to GSDP**



[Figure 2.2]

Source: DES, Odisha

Services sector witnessed continuous expansion with a share in total gross value

addition rising from 39.09 percent in 2011-12 to 40.51 percent in 2014-15 and 43.53 percent in 2016-17. The agriculture and allied sector showed fluctuating trend. Its share increased from 17.96 percent in 2011-12 to 21.23 percent in 2014-15 and again declined to 18.68 percent in 2015-16 due to deficient monsoon. It further increased to 19.91 percent in 2016-17 due to higher agriculture production. Compared to all India level in 2016-17, agriculture and allied sector's share of Odisha is higher at 2 percentage points. The industries sector's share is 8 percentage points more than that of India. Share of services sector in Odisha is 13 percentage points less than all India figure. Sector wise details of GSDP are at Annexure 2.3.1 to 2.3.6 and that of NSDP at Annexure 2.4.1 and 2.4.2. GSDP and NSDP of different states with growth rates from 2011-12 to 2014-15 are at Annexure 2.5.1 & 2.5.2 and Annexure 2.6.1 & 2.6.2 respectively.

2.3.3 While analyzing the past trends in sectoral shifts away from agriculture to industries and services, it is observed that the average contribution of agriculture and allied sector to the Odisha GSDP has been declining from 62 percent in 1950's to 48 percent in 1980's and 22 percent in 2000-10 (at 2004-05 base). The share has further reduced to 19.91 percent during 2011-16 at 2011-12 base.

2.3.4 On the contrary, average share of Industries sector for the state has been increasing from 26 percent in 1980's to 34 percent in 2000-10, although it showed fluctuations from 1950's to 1970's. Services sectors also registered improved share from 27 percent in 1980's to 44 percent in 2000-10 at 2004-05 base. At new base, the share of industries and services sectors stood at 39.20 percent and 40.88 percent respectively on an average during 2011-16 (Table 2.1). The

details of sectoral developments are outlined below.

### **Agriculture and Allied Sector:**

2.3.5 Agriculture and allied sector covers following economic activities.

- (i) Crop production,
- (ii) Livestock,
- (iii) Forestry and logging
- (iv) Fishing

The growth in this sector showed fluctuating trend during 2011-12 to 2016-17. During 2015-16, growth rate declined to 13.65 percent due to severe drought which affected 235 blocks in the state. During 2016-17, the growth rate is improved significantly at 14.40 percent following normal monsoon in the current year. During 2011-16, the average annual growth rate (CAGR percent) was 3.4 percent only. Although contribution of agriculture and allied sector is moving downward from 62 percent in 1950's to 19.91 percent in 2016-17, still this sector continues to be the main employment provider to small and marginal workers. Growth of this sector is important not only for ensuring food security and reduction of poverty in rural areas, but also in sustaining growth of rest of the economy.

2.3.6 The driver of growth of agriculture and allied sector includes crop production proper with 12 percent share on an average in the total Gross State Value Addition (GSVA). The shares of livestock, forestry and fishery sectors were 2.82 percent, 2.50 percent and 1.88 percent respectively in 2016-17 (Table 2.1). The production and productivity of crops which face risks and uncertainties like deficient rainfall, pests attack, non-availability of credit, price fluctuations, failure of farming method etc play crucial role

## Sectoral Share (in per cent) at current prices in 2011-12 base

Economic Activity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (Advance)
<b>Agriculture</b>	<b>17.96</b>	<b>21.65</b>	<b>20.12</b>	<b>21.23</b>	<b>18.68</b>	<b>19.91</b>
Crops	11.55	15.01	13.47	14.49	11.46	12.72
Livestock	2.48	2.64	2.67	2.61	2.72	2.82
Forestry and Logging	2.69	2.59	2.65	2.62	2.69	2.50
Fishing	1.23	1.41	1.33	1.52	1.81	1.88
<b>Industries</b>	<b>42.94</b>	<b>38.95</b>	<b>40.08</b>	<b>38.26</b>	<b>38.38</b>	<b>36.56</b>
Mining and Quarrying	12.20	10.84	10.38	8.55	8.00	7.36
Manufacturing	18.96	17.14	18.75	19.02	19.19	18.27
Electricity, Gas, Water Supply	2.30	2.53	2.55	2.75	3.01	2.95
Construction	9.49	8.44	8.40	7.94	8.19	7.98
<b>Services</b>	<b>39.09</b>	<b>39.40</b>	<b>39.80</b>	<b>40.51</b>	<b>42.94</b>	<b>43.53</b>
Trade, Hotels and Restaurants	9.38	9.91	10.05	10.41	10.95	10.99
Transport, Communication, etc	6.21	6.35	6.43	6.72	7.22	7.34
Financial Services	3.67	3.70	3.49	3.52	3.76	3.64
Real Estate, Ownership of Dwelling & Professional	7.86	7.74	7.79	7.76	8.07	8.12
Public Administration and Defence	3.98	3.99	5.04	4.36	4.20	4.27
Other Services	8.01	7.70	7.01	7.74	8.74	9.17
<b>TOTAL GSVA at Basic Prices</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[Table 2.1]

Source: DES, Odisha

in the growth of agriculture sector. As the cropping pattern of the state is cereal centric, it requires more of irrigation, fertilizers, manures etc. More than 50 percent of gross cropped areas are covered under cereal crops. Almost one third of net area sown is irrigated, while two thirds remain un-irrigated. Therefore, cultivation of other crops like pulses etc which require less water need be encouraged widely in unirrigated areas to increase production level.

2.3.7 Although crop production in the state has increased, still average yield of paddy and pulses are below that of the leading states. In the recent years the state has made impressive strides in average yield of paddy and pulses

which were above 3000 kg/ha and 500 kg/ha respectively during 2012-15, compared to average yield of paddy of 2338 kg/ha and pulses of 350 kg/ha during 2001-11.

2.3.8 With a view to meet the productivity and marketing challenge, the State Government has launched comprehensive and inclusive agriculture policy. It also conferred the status of agro based industries and increased investment level on agriculture and irrigation sector<sup>1</sup>. The growth in Government expenditure in agriculture sector rose from 17.7 percent in 2012-13 to 23.4 percent in 2013-14, while in irrigation sector, it increased

<sup>1</sup> Odisha Agriculture at a glance, 2015 by DAFF

from 16.7 percent to 18.3 percent during the same period.

2.3.9 For raising agricultural productivity, use of quality inputs, exploitation of modern technology and shift into high value commodities such as fruits, vegetables, flowers, fisheries, animal husbandry and poultry need be propagated. To make farming remunerative for farmers, market intervention of Government through minimum support prices (MSP) with wide coverage of commodities need be ensured so that farmers can get fair share of prices of their commodities at market places without any exploitation from private traders.

#### **Industries Sector:**

2.3.10 Industrial sector occupies an important position in state economy and has major role to play in realizing rapid economic development. This sector covers following sub-sectors.

- (i) Manufacturing,
- (ii) Mining & quarrying,
- (iii) Electricity, gas, water supply & utility services and
- (iv) Construction

Value additions from above sub-sectors account for more than one third of GSDP. Manufacturing sector contributes 18.55 percent on an average to total GSVA, thus becoming a major driver of growth. The other sub-sectors like mining & quarrying and construction also contribute 9.55 percent and 8.41 percent on an average respectively. The electric, gas, water supply & utility services sub-sector has a lower share averaging at 2.68 percent.

2.3.11 The manufacturing sector constitutes both organized and un-organized industries with a share of 88 percent and 12 percent

respectively. The organized manufacturing sector mainly consists of sub-sectors like manufacturing of basic iron and steel metal, precious and non-ferrous metal, coke and petroleum products. The GVA of these sectors accounts for 79 percent of total GVA in organized sector.

2.3.12 As per Annual Survey of Industries (ASI), which is the source of data on organized manufacturing sector, there were 2750 registered factories in the state during 2013-14, which provided gainful employment to 2.61 lakh persons. Major employment providing Industries are under basic metals categories (NIC code-24), which contribute more than half of total output.

2.3.13 The un-organized sector, which contributes 12 percent of GVA under manufacturing sector provides employment to 12.66 lakh persons through 6.15 lakh enterprises as per NSS 67<sup>th</sup> round survey (2010-11).

2.3.14 The share of mining and quarrying sector varies from 12 percent in 2011-12 to 7.36 percent in 2016-17. The deceleration of share is mainly attributed to fall in prices of minerals. Iron ore and Coal with highest share of 53 percent and 26 percent respectively have mainly contributed to the growth of mining sector.

2.3.15 The share of electricity, gas, water supply & other utility services increased marginally from 2.30 percent in 2011-12 to 2.55 percent in 2013-14 and 3.0 percent in 2015-16. During 2016-17, it again declined marginally to 2.95 percent. The contribution of construction sector varies from 9.49 percent in 2011-12 to 7.98 percent in 2016-17. Overall industries sector witnessed average annual growth rate (CAGR percent) of 5.47 percent (Table 2.2).

2.3.16 All round industrial development in the state to generate employment and economic development has been a priority area of the Government, because of which new Industrial Policy Resolution, 2015 and SEZ Policy, 2015 have been formulated. The Startup policy has been prepared to develop startup hubs in Odisha and will act as a catalyst in economic growth of the state. Besides above, the Government has also taken up various reform measures for simplification of procedures to attract more industrial investment.

#### Real growth of GSDP ( percent) by Sectors

Sector	2012-13	2013-14	2014-15	2015-16	2016-17
Agriculture, forestry & fishing	15.72	-5.20	8.87	-13.67	14.40
CAGR % (2011-16)	--	--	--	--	3.36
Industries	-2.37	16.29	2.00	7.83	4.52
CAGR% (2011-16)	--	--	--	--	5.47
Services	6.94	7.10	8.07	10.85	8.08
CAGR% (2011-16)	--	--	--	--	8.2
GSVA at basic price	4.52	8.34	5.60	5.20	7.49
GSDP	4.61	8.73	6.00	6.01	7.94
CAGR% (2011-16)	--	--	--	--	6.65

[Table 2.2]

Source: DES, Odisha

#### Services Sector:

2.3.17 Services sector includes following economic activities.

- (i) Trade, Hotels and Restaurants
- (ii) Transport, Storage, Communication and services related to broadcasting
- (iii) Financial Services
- (iv) Real estates, Ownership of dwellings and professional services
- (v) Public Administration and Defense
- (vi) Other services

Contribution of this sector to GSDP was 40.88 percent during 2011-16. In 2011-12, the share was 39.09 percent and it rose to 43.53 percent in 2016-17. Within this sector Trade, Hotels and Restaurants, Other Services, Transport, Storage & Communication and Real Estate, Ownership of Dwellings and Professional Services contribute substantially with shares at 10.9 percent, 9.17 percent, 7.34 percent and 8.12 percent respectively in 2016-17.

2.3.18 The growth in services sector accelerated from 6.94 percent in 2011-12 to 10.85 percent in 2015-16 and it further decreased to 8.08 percent in 2016-17. During 2011-16, the average annual growth rate (CAGR percent) was 8.2 percent (Table 2.2). With a share of around 41 percent in the GSDP and growth rate of about 8 percent, services sector turned out to be the growth engine for Odisha economy. The growth in service sector for 2016-17 is arrived at based on data mainly upto November, 2016 and hence showed the decelerated growth compared to 2015-16 with annual data.

2.3.19 The sub-sector Public Administration which includes Government expenditure is also one of the key indicators in services sectors with average share of 4.31 percent. On the other hand, financial sector which includes banking and insurance services, has a share of 3.63 percent to total GVA. The GVA of Trade and hospitality sector with major contribution from private un-organized sector (96 percent) continued to grow at an average rate of 10 percent.

2.3.20 The different segments of Transport and communication sector exhibited mixed signals of growth. But average share of "Transport by other means" remained on top with 60 percent, while it was 24 percent for Communication, 14 percent for Railways. GVA of Other services includes health,

education, social work, arts and entertainment and personal services. Among them, GVA of education accounted for 56 percent of other services and grew at 9.1 percent in 2016-17.

2.3.21 GVA of Real estate, Ownership of dwellings and Professional services, which includes (i) real estate services (ii) occupied residential houses (iii) Computer and Related Activities (iv) Accounting, Book-keeping and Related Activities, (v) Research and development (vi) consultancy, architectural, engineering & other technical activities (vii) legal services, seems to be strengthening with highest contribution from ownership of dwelling sub sector (74 percent) and the sub sector exhibited a growth rate of 6.8 percent during 2011-16.

2.3.22 According to NSS 67th round survey (2010-11) 10.73 lakh enterprises under Trade sector and 7.55 lakh under other Services activities were engaged in the state providing gainful employment to 16.79 lakh and 19.86 lakh persons respectively.

2.3.23 The growth rate of services sector was averaging at 6.8 percent from 2012-16 and has average share of 41 percent of value addition. The sector is least volatile sector. Addressing the issues like human skill development, physical infrastructure can speed up service sector growth.

## 2.4 Government Expenditure

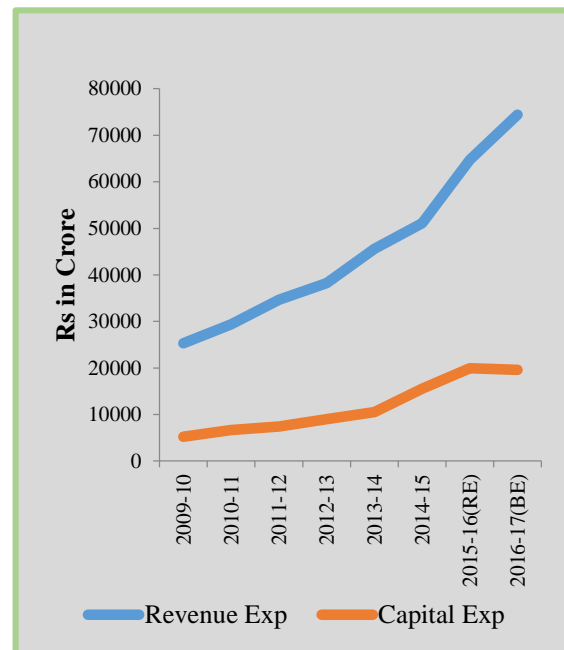
2.4.1 Government provides valuable public services such as education, infrastructure health care, social security etc. Increase in Government expenditure amounts to increase in provision of said services that contribute to economic growth. Government expenditure has two components i.e., revenue expenditure and capital expenditure. Revenue expenditure is defined as expenditure incurred on normal running of government departments and various services as well as subsidies, interest

payments on debt etc that does not result in creation of assets for the Government.

2.4.2 On the other hand capital expenditure includes expenditure on acquisition of assets like land, buildings, machinery, equipment, loans and advances granted by Central Government to State and Union Territory Governments, Government Companies etc. Any expenditure that increases the assets or reduces the liabilities of the Government are included under this head. Expenditure on both of these heads when summed up, give the total expenditure of the Government.

2.4.3 Figure 2.3 shows revenue expenditure which has dominated total Government expenditure in the State. It increased steadily and significantly compared to capital expenditure.

**Pattern of Revenue and Capital Expenditure, Odisha**



[Figure 2.3]

Source: Budget at a glance, Finance Dept

2.4.4 Despite increasing trend in capital expenditure from 2013-14 onwards, the gap between revenue and capital expenditure has widened. Government's total expenditure



stood at 18.48 percent of GSDP in 2011-12 and increased to 24.82 percent of GSDP in 2016-17 (BE). Out of this capital expenditure was 3.27 percent of GSDP in 2011-12 and it increased to 5.17 percent of GSDP in 2016-17.

## 2.5 Gross Fixed Capital Formation (GFCF):

2.5.1 Capital formation mirrors the magnitude & growth of productive potential of State Economy. Gross Capital Formation can be broadly classified into Gross Fixed Capital Formation & change in stock of raw materials, semi-finished goods & finished goods. Estimate of GFCF at current price for public sector reveals upward trend and its share to GSDP varied between 8.00 percent to 18.47 percent during the period from 2004-05 to 2010-11 and during 2009-10, the share was 18 percent, but later in 2010-11, it came down to 16 percent.

2.5.2 At the same time, all India share of GFCF to GDP was as high as 9 percent in 2008-09 and came down to 8.9 percent in 2009-10 and further reduced to 8.3 percent in 2010-11 (Table 2.3).

2.5.3 The GFCF by type of asset shows that contribution of construction activity to GFCF decreased from 56.18 percent to 31.79 percent during the period 2004-05 to 2010-11, while machinery & equipment contribution towards GFCF increased to 68.21 percent in 2010-11 from 43.8 percent in 2004-05.

2.5.4 Contribution of GFCF from public sector by type of institutions reveals that Non-Departmental Commercial Undertakings continue to dominate as major contributor (69 percent) to GFCF under public sector in Odisha followed by Administrative Departments (18 percent), Departmental Commercial Undertakings (9 percent) and

Quasi Government Bodies (4 percent) in 2010-11.

### Percentage share of GFCF (Public Sector) to GSDP/GDP

Year	Odisha	India
2004-05	8.00	7.54
2005-06	9.87	8.00
2006-07	8.90	8.59
2007-08	12.73	8.76
2008-09	13.8	9.06
2009-10	18.47	8.9
2010-11	16.09	8.34

[Table 2.3]

Source: DES, Odisha and CSO, New Delhi

2.5.5 GFCF by type of industry during 2004-05 to 2010-11 reflects dominant contribution to GFCF with increasing trend of 71 percent in 2004-05 to 90 percent in 2010-11. Contribution from Agriculture & allied and Services sectors appears to be receding from 15 percent and 13 percent respectively in 2004-05 to 6 percent and 4 percent in 2010-11.

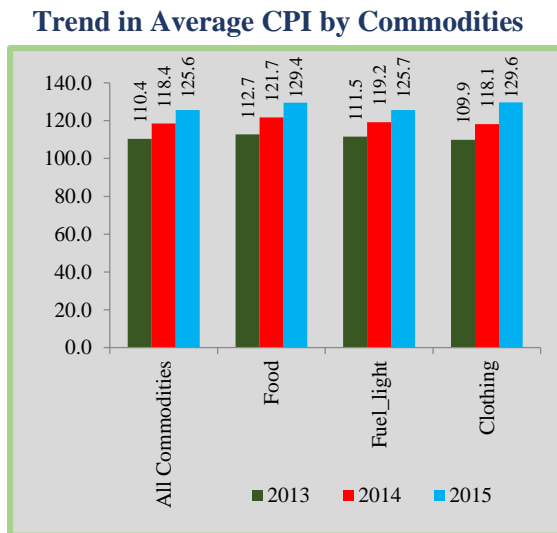
## 2.6 Inflation

2.6.1 Price data of selected rural and urban markets collected by Central Statistics Office (CSO), New Delhi represents Consumer Price Index (CPI), which is designed to measure changes over time in general level of retail prices of selected goods and services that households purchase for the purpose of consumption. The changes on prices affect the real purchasing power of consumers and their welfare. Inflation is the rise in general level of prices of goods and services in an economy over a period of time. When the general price level rises, each unit of currency buys fewer goods and services. Consequently, inflation reflects a reduction in the purchasing power per unit of money.

2.6.2 CPI of Odisha for March, 2016 increased steadily to 130.8, which rose by 4

points compared to all India CPI (126). Surprisingly average index was recorded more in rural areas (126) in comparison to urban (123.8). Annual inflation rate of Odisha (7.92 percent) for March, 2016 was observed highest among all states. The all India inflation remained at 4.83 during that period. Rural Odisha was the worst sufferer with inflation rate as high as 9.57, while it was 5.70 for all India. Fig 2.4 depicts trend of average CPI in the state from 2013 to 2015 at 2012 base

2.6.3 In 2013, CPI of Odisha was 110.4 and increased to 125.6 in 2015, which was up by 15 points. CPI group constitutes five broad commodity groups, which include food & beverages, fuel and light, housing, clothing & footwear and miscellaneous. Among the groups, highest increase was recorded for clothing & footwear (29 points) followed by food & beverages (17 points) and fuel & light (14 points).



[Figure 2.4]

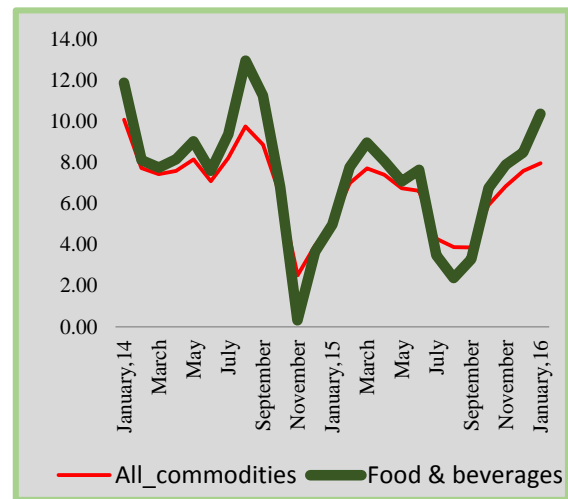
Source: CSO, New Delhi

2.6.4 The month wise CPI for Odisha from 2014 to 2016 are at Annexure 2.8. The month wise annual inflation for the year 2014 and 2015 has been reflected in Fig 2.5 for all commodities and food & beverages. The rate

of inflation in Jan, 2014 touched two-digit level both for all commodities and food & beverages. It was highest for food & beverage during August, 2014 with above 12 percent. During November, 2014, inflation was observed lowest for both the items.

2.6.5 The rate of inflation remained at single digit level throughout the year (from January, 2015 to December, 2015), but again food inflation touched two-digit level in January, 2016. Fig 2.6 depicts month wise annual inflation of all commodities with fuel & light and clothing & footwear from January, 2014 to January, 2016. Clothing & foot wear inflation showed increasing trend from November, 2014 onwards and was much above the inflation level of all commodities as well as that of fuel & light. It touched two digit level twice during 2015-16 in April, 2015 and December, 2015.

Y-on-Y inflation for 2014 and 2015



[Figure 2.5]

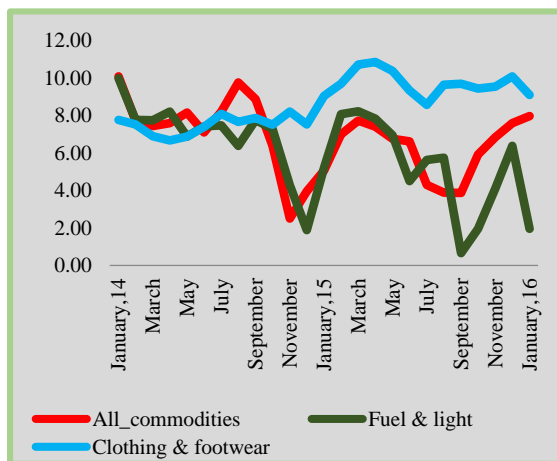
Source: CSO, New Delhi

2.6.6 Inflation affects purchasing power of population, although it is not evenly distributed in the economy. Inflationary situation may be associated with fall in output and thereby affecting growth performance of the economy. The empirical evidence also

implies that there is a long-run relationship between growth rates and inflation rates and the interesting finding is that the relationship between inflation and growth rates is negative<sup>2</sup>.

2.6.7 Inflation management is crucial for an economic policymaker. The prices of commodities will, over time, rise and fall, responding to the pulls and pushes of demand and supply. The price movements signal to consumers that they should take less, while it alerts producers to produce more of what is in short supply. Impact of inflation is more for the common man, as rise in prices of goods do not match with equivalent increase in labour wage.

**Y-on-Y inflation for 2014 and 2015**



[Figure 2.6]

Source: CSO, New Delhi

2.6.8 Since large segments of the state continue to be poor, controlling food inflation is more important for the Government. To promote growth and keep inflation low, necessary policy measures are to be taken by the Government.

<sup>2</sup> Inflation and economic growth in India-An empirical analysis by P.V.Salian&K.Gopakumar

## 2.7 Employment Scenario

2.7.1 Employment is a key macroeconomic issue in all developing countries. Accelerating growth and creating employment opportunities are the goals of economic policy. It is imperative that high employment growth alongside high economic growth can succeed in reducing poverty significantly. For formulating an effective strategy to promote employment, analysis of different measures of employment and unemployment covering the parameters like Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR), Unemployment Rate (UR) and Proportion of unemployed is essential. Each of these parameters uses four different measures is explained below. The district wise workers population and work participation rate as per 2011 census in Odisha are at Annexure 2.11.

2.7.2 Usual Principal Status (UPS) reflects the employment status of an individual over a reference period of one year. A person is classified as belonging to labour force, if he/she had been either working or looking for work during longer part of the 365 days preceding the survey.

2.7.3 Usual Principal and Subsidiary Status (UPSS) concept is used to widen UPS. All those who were either un-employed or out of labour force, but had worked for at least 30 days over the reference year are treated as workers with subsidiary status. This approach is important to understand the contribution made by seasonal workers in the production of goods and services.

2.7.4 Current Weekly Status (CWS) is used to classify a person to be in labour force, if she/ he has either worked or is seeking and/ or available for work at least one hour during the reference period of one week preceding the date of survey.

**2.7.5** Current Daily Status (CDS) rates for studying intensity of work. These are computed on the basis of the information on employment and unemployment recorded for the 14 half days of the reference week. The employment status during the seven days are recorded in terms of half or full intensities. An hour or more but less than four hours is taken as half intensity and four hours or more is taken as full intensity.

**2.7.6** The major source of information on employment has been National Sample Survey Office (NSSO), New Delhi which conducts quinquennial large sample surveys and last survey was conducted during 2011-12. Like NSSO procedures, the Labour Bureau, Chandigarh has been organizing survey on annual basis since 2010-11 and so far conducted four surveys. Besides, there are othersources such as the Employment Exchange Registers, the Decennial Population Census and Economic Census by CSO. An analysis of data of Labour Bureau based on UPS and UPSS for the period from 2011-12 to 2013-14 shows changes in Labour force and employment in the State.

**2.7.7** Labour Force indicates the supply of labour in the country and is an important input for production of goods & services in the country. The Labour Force Participation Rate (LFPR) indicates the proportion of a country's working-age population (15 years and above) engaged actively in the labour market, either by working or looking/ searching for work.

**2.7.8** LFPR<sup>3</sup> based on UPS approach was estimated at 52.2 percent in Odisha during 2013-14. The gender wise estimates show that 79.4 percent of males and 22.3 percent of females were either working or looking for work (Table 2.4). The female participation was quite low compared to male counterparts in the state. The corresponding estimate at all India level for female was 25.8 percent as

<sup>3</sup> Report on employment- unemployment survey by Labour Bureau, Chandigarh

against 74.4 percent for male. It may be observed that the LFPR in rural sector was 52.9 percent, whereas it was 48.3 percent in urban areas. The major reason for lower LFPR in urban area is the female participation rate, which was 17.1 percent only, while it was 23.2 percent in rural area.

**LFPR at Odisha and India level for 2013-14  
(figure in percent)**

Level	Approach	Rural + Urban		
		Male	Female	All
Odisha	UPS	79.4	22.3	52.2
	UPSS	80.2	30.1	56.4
India	UPS	74.4	25.8	52.5
	UPSS	75.7	31.1	55.6

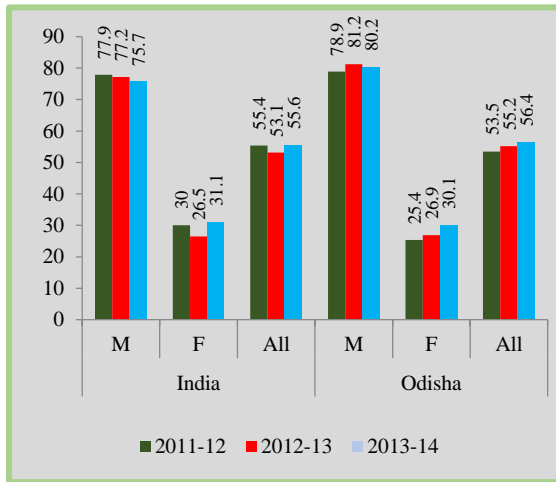
[Table 2.4]

Source: Labour Bureau, Chandigarh

**2.7.9** Under UPSS approach, LFPR is estimated at 56.4 percent in the State, while the corresponding figure at all India level was 55.6 percent. While comparing the results of UPSS with UPS approach, it may be seen that LFPR in the state was 8.0 percent higher under UPSS approach. For female category, LFPR was also significantly higher by 35 percent under UPSS. It implies that many females, who were primarily not a part of labour force based on major time criterion, had worked for few months during the peak season or at the time of availability of work at their place. Fig 2.7 below presents LFPR status based on UPSS approach from 2011-12 to 2013-14. It is observed that LFPR of the state was 53.5 percent in 2011-12 and it increased to 56.4 percent in 2013-14. While decomposing LFPR by gender, it is seen that female participation has increased to 30 percent in 2013-14, which is behind the over- all increasing trend of LFPR in 2013-14.

**2.7.10** Similar pattern is observed at all India level, where female LFPR has increased to 31 percent in 2013-14 in comparison to 30 percent in 2011-12 after moving downward to 26.5 percent in 2012-13.

**Trends in LFPR ( percent) by sex under UPSS**



[Figure 2.7]

Source: Labour Bureau, Chandigarh

**2.7.11** The second important parameter of labour force is the Worker Population Ratio (WPR). The WPR signifies the proportion of workers/ employed persons in the total population for the specific age group. The Worker Population Ratio (WPR) was estimated to be 49.1 percent for Odisha during 2013-14 based on UPS, which means 49 percent of persons aged 15 years and above were employed in the State based on UPS approach. The corresponding all India figure was 49.9 percent. As regards gender classification, 75.4 percent males and 20.1 percent females were estimated to be employed (Table 2.5).

**2.7.12** Under UPSS approach, WPR was estimated at 54.0 percent for Odisha, compared to 53.7 percent at all India level. Under UPSS approach, WPR of the State is 10.2 percent higher than UPS. Figure 2.8 depicts the status of WPR according to UPSS approach from 2011-12 to 2013-14. WPR status in Odisha registered an increasing trend from 52.2 percent in 2011-12 to 54.0 percent in 2013-14. In case of male category, the pattern of WPR remained same for different

years, while in female category, WPR has increased by 4 percentage point during 2011-12 to 2013-14. For India, the position remained at the same level of about 53 percent during the period from 2011-12 to 2013-14.

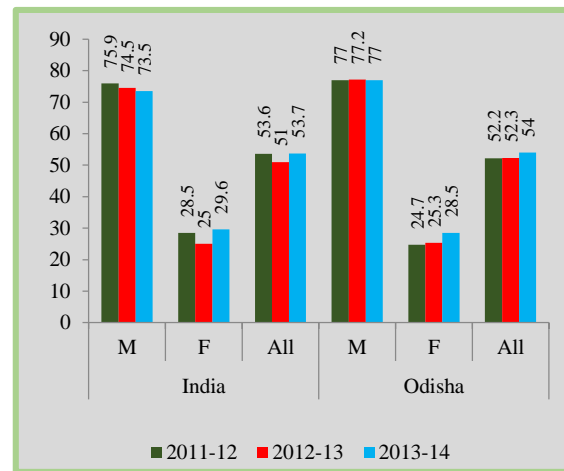
**WPR ( percent) at Odisha and India level for 2013-14**

Level	Approach	Rural + Urban		
		Male	Female	All
Odisha	UPS	75.4	20.1	49.1
	UPSS	77.0	28.5	54.0
India	UPS	71.4	23.8	49.9
	UPSS	73.5	29.6	53.7

[Table 2.5]

Source: Labour Bureau, Chandigarh

**WPR ( percent) by Sex under UPSS**



[Figure 2.8]

Source: Labour Bureau, Chandigarh

**2.7.13** Un-employment rate is the third important parameter of the labour force, which reflects the portion of the labour force which was available for work during the given reference period but did not get work. The unemployment rate derived based on Usual Principal Status is sometimes called as “chronic unemployment” as the persons coming under this category remained unemployed for major part of the period for which they were available.

**2.7.14** Unemployment rate on UPS approach was estimated at 6.0 percent in the State

during 2013-14 compared to all India rate of 4.9 percent. This means about 6 per cent of the persons, who were available for work during the reference period, could not get work and remain unemployed. The unemployment rate in case of female category (10.0 percent) was just double compared to male counterparts (5.0 percent). Un-employment rate based on UPSS approach was estimated at 4.3 percent in the State, while it was 3.4 percent at all India level. In case of male category, un-employment rate was estimated 3.9 percent, where as for female category, the corresponding rate was 5.3 percent (Table 2.6).

**Unemployment rate ( percent) for 2013-14**

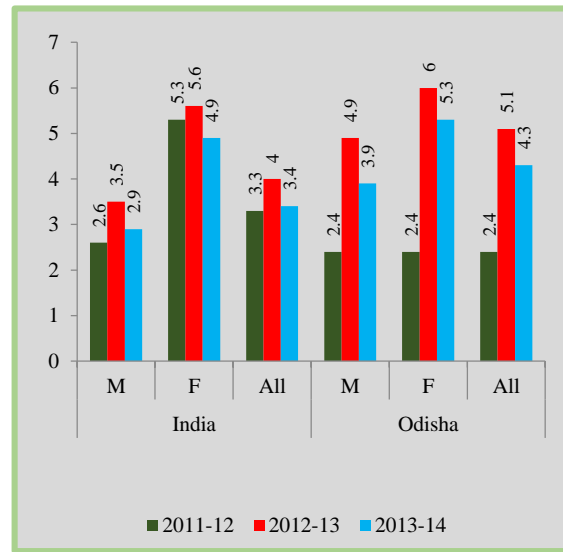
Level	Approach	Rural + Urban		
		Male	Female	All
Odisha	UPS	5.0	10.0	6.0
	UPSS	3.9	5.3	4.3
India	UPS	4.1	7.7	4.9
	UPSS	2.9	4.9	3.4

[Table 2.6]

Source: Labour Bureau, Chandigarh

**2.7.15** Comparison of Unemployment rate since 2011-12 is presented in Fig 2.9 below. The unemployment rate in the State has been declining from 2012-13 to 2013-14. The decline was more for male than female. Compared to 2011-12, unemployment rate has increased by 3.6 percentage points in 2012-13 with significantly higher rate of 6 percent for females as compared to 4.9 percent for males.

**Unemployment Rate ( percent) under UPSS**



[Figure 2.9]

Source: Labour Bureau, Chandigarh

**2.7.16** For every 1 percent increase in unemployment rate, a country's output will be roughly lowered by 2 percent, which is Okun's law, an observation of economist-Arthur Melvin Okun<sup>4</sup>. With the growing population, both monetary policy and fiscal policy need be closely pursued to achieve economic goals like low unemployment, higher output and economic growth and price stability.

**2.7.17** Proportion of un-employed, another important parameter, is defined as proportion of unemployed persons in the total population, whereas unemployment rate is defined as proportion of unemployed persons in the labour force. The proportions of un-employed in the State based on UPS and UPSS approach were estimated at 3.1 percent and 2.4 percent respectively during 2013-14. For male, it was 4.0 percent and 3.1 respectively, where as it was 2.2 percent and 1.6 percent for female. The details are indicated in Table 2.7 below.

<sup>4</sup>Ref-[https://en.wikipedia.org/wiki/Okun%27s\\_law](https://en.wikipedia.org/wiki/Okun%27s_law)

### Proportion of Unemployed ( percent) for 2013-14

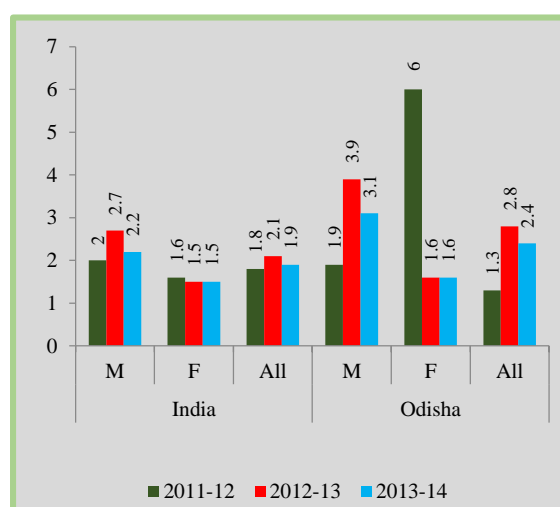
Level	Approach	Rural + Urban		
		Male	Female	All
Odisha	UPS	4.0	2.2	3.1
	UPSS	3.1	1.6	2.4
India	UPS	3.0	2.0	2.6
	UPSS	2.2	1.5	1.9

[Table 2.7]

Source: Labour Bureau, Chandigarh

**2.7.18** Changing pattern of proportion of unemployed from 2011-12 to 2013-14 has been presented in the figure below. Proportion of unemployed in 2012-13 was estimated at 2.8 percent for Odisha, which declined to 2.4 percent in 2013-14. The above decline is the result of decrease in proportion of unemployed in male category. The all India pattern also exhibited declining trend in 2013-14 as compared to 2012-13 (Fig 2.10).

### Proportion of Unemployed ( percent) under



### UPSS

[Figure 2.10]

Source: Labour Bureau, Chandigarh

**2.7.19** The results of National Sample Survey (NSS) for 2011-12 and Labour Bureau for 2011-12 are compared in Table 2.8. As per NSS, LFPR of the State in 2011-12 was estimated at 42.2 percent as against 53.5 percent as per Labour Bureau. The WPR was

estimated at 41.2 percent by NSS, whereas it was 52.2 percent as per Labour Bureau statistics. The unemployment rate estimated by both the organizations was same i.e., 2.4 percent.

**2.7.20** Different approaches and the resulting estimates for Labour force as discussed above are useful in understanding different characteristics of labour force participation and utilization. Since UPSS approach captures both seasonal and perennial workers, the results based on UPSS should be preferred for policy analysis and planning exercises.

### Labour force indicators of Odisha in 2011-12 by NSSO and Labour Bureau

2011-12	Indicator	Male	Female	All
NSSO	LFPR	60.5	23.8	42.2
LB	LFPR	78.9	25.4	53.5
NSSO	WPR	59	23.3	41.2
LB	WPR	77	24.7	52.2
NSSO	UR	2.5	2.1	2.4
LB	UR	2.4	2.4	2.4

[Table 2.8]

Source: NSSO, New Delhi & Labour Bureau, Chandigarh

The State wise LFPR, WPR and UR under UPS and UPSS approach are at Annexure 2.9.1 and 2.9.2 respectively. The variations in the estimates released by two different sources, which are following same methodology, may be due to agency bias and response error.

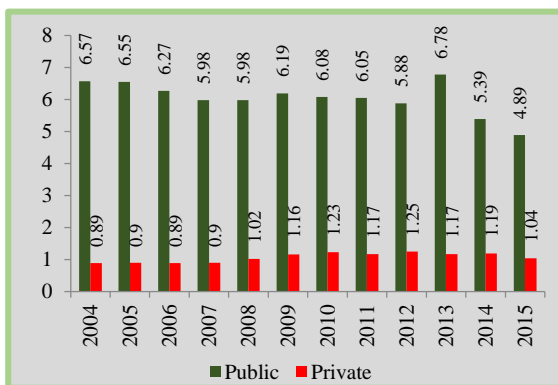
**2.7.21** The recently published report of sixth economic census, 2013 gives a comprehensive picture of employment in the state. The provisional report of 2013 shows that there were 20.89 lakh establishments in the state engaged in different activities other than crop production, plantation, public administration, defense and compulsory social security services. These establishments employed 43.18 lakh people. More importantly the annual growth rate (CAGR percent) in total

employment since 2005 (fifth economic census) is 1.93 percent. According to the previous census, the growth rate in employment (CAGR percent) between 1998 and 2005 was 1.81 percent. There is thus a distinct improvement in employment during the period 1998-05 and 2005-13.

**2.7.22 Employment in Organized Sector:**

Employment generation per se is the macroeconomic goal of development plans. However employment generation in the organized sector is preferable as it provides quality employment in social security. Fig 2.11 presents employment scenario in the state from 2004 to 2015 in organized sector (Details at Annexure 2.10). It is observed that employment has been significantly high in public sector with 85 percent share as compared to 15 percent in private sector. But the data in organized sector show decline in employment from 7.95 lakh in 2013 to 6.58 lakh in 2014 and 5.93 lakh in 2015. This is due to reduction of employment both in public and private sector. The compound annual growth rate (CAGR) in employment in organized sector from 2004 to 2015 has also declined by 2.1 percent. In case of private sector, the growth (CAGR) during that period has increased by 1.4 percent.

**Trends in employment in Organized Sector (Lakh Nos.)**



[Figure 2.11]

Source: Directorate of Employment, Odisha

**2.7.23** The employment strategy of the Government must seek i) creation of productive employment ii) improvement of quality of employment in different sectors iii) improvement of skill of the workers through training in a professional manner.

**2.8 Population Dynamics**

**2.8.1** Odisha is the 11<sup>th</sup> most populous state in India and home to 41.95 million people as per 2011 census. Out of this, rural population is 34.95 million and urban population is 7.00 million. The growth rate of population of Odisha in the last decade 2001-2011 is recorded as 13.97 percent, which means the population is currently growing at a rate of 1.3 percent per year. The rural population constitutes 83 percent. The sex ratio has increased from 972 to 978 and literacy rate is 73.4 percent in the state. The share of youth population (15-24 years) in 2011 (18.36 percent) is almost the same as compared to 2001 (18.26 percent). Currently Odisha's young (15 and less years) population represents 28.9 percent, whereas old population (65+ years) is about 6 percent.

**2.8.2 Dependency Ratio:** It is a measure showing the number of dependents (aged 0-14 and over the age of 65) to the total population (aged 15-64). This indicator gives insight into the number of people of non-working age compared to that of working age<sup>5</sup>. The dependency ratio was estimated at 62.6 percent in 2001 and it decreased to 53.5 percent in 2011, which accounted for a decline of 9 percentage points over the period. Declining trend in dependency ratio implies economically productive population is increasing, which is a good sign for the State. Productive employment of working age people can accelerate state's economic growth.

<sup>5</sup>Dependency ratio is calculated as =100 x (Population (0-14 years) + Population (65 years+)) / Population (15-64 years).



## 2.9 Consumption Pattern

2.9.1 Consumption expenditure is an important indicator of standard of living. As an economy develops, the share of expenditure on food items declines and that of non-food increases within the overall consumption expenditure. Both in Odisha as well as in India, the share of food expenditure has been declining, where as the share of the non-food expenditure is increasing as per data of Consumer Expenditure survey conducted by National Sample Survey office (NSSO), Govt. of India.

2.9.2 Though the share of food related expenditure in total household expenditure has been showing a declining trend with increasing share of expenditure on non food items both for Odisha and India, neither the share of each category of expenditure nor the observed trends are identical. Even within the state there are rural-urban variations.

2.9.3 The proportion of expenditure in food items has been declining for both rural Odisha (68.03 percent in 1993-94 to 51.98 percent in 2011-12) and rural India (63.2 percent in 1993-94 to 48.31 percent in 2011-12). At the same time, the proportion of expenditure on non-food items has been showing increasing trends over the years both for rural Odisha (31.94 percent in 1993-94 to 48.02 percent in 2011-12) and rural India (36.8 percent in 1993-94 to 51.68 percent in 2011-12). This reflects diversification in the consumption pattern over the years. One contributing factor to the trend may be improved awareness and improved access to market due to better connectivity to urban areas from the hinterlands. But the main factor influencing this obviously the increase in income levels of households. The decline in food expenditure and the increase in the non-food expenditure

are higher in Rural India in comparison with Rural Odisha (Table 2.9(A) and 2.9(B)).

**Share of food items in total expenditure in rural Odisha and India**

Year/ Food items	Cereal	Pulses & Pulses products	Milk Product	All Food (Odisha)	All Food (India)
1993-94	38.97	2.66	2.4	68.05	63.2
2004-05	28.25	2.87	2.55	61.56	55.04
2009-10	18.64	3.57	2.27	61.91	56.98
2011-12	18.41	3.57	2.99	51.98	48.31

[Table 2.9(A)]

Source: NSS 50<sup>th</sup>, 61<sup>st</sup>, 66<sup>th</sup> and 68<sup>th</sup> round (Central Sample)

**Share of non food items in total expenditure in rural Odisha and India**

Year/ Non- Food items	Fuel & Light	Clothing & footwear	Pan & tobacco	All Non -Food (Odisha)	All Non -Food (India)
1993-94	9.23	4.86	2.93	31.94	36.8
2004-05	11.81	3.63	2.61	38.42	44.95
2009-10	9.84	5.64	2.67	38.09	43.02
2011-12	12.19	7.41	2.12	48.02	51.68

[Table 2.9(B)]

Source: NSS 50<sup>th</sup>, 61<sup>st</sup>, 66<sup>th</sup> and 68<sup>th</sup> round (Central Sample)

2.9.4 In urban Odisha, the proportion of food expenditure in total expenditure has declined from 57.78 percent to 39.26 percent during 1993-94 to 2011-12. While the decline in case urban India has been from 54.7 percent to 37.26 percent. As regards non food expenditure, the share has been increasing both for urban Odisha (42.22 percent to 60.74 percent) and urban India (45.3 percent to 62.74 percent). Compared to India, the decline in share of food expenditure and increase in share of non-food expenditure is faster at Odisha level (Table 2.10(A) & 2.10(B)).

### Share of food items in total expenditure in urban Odisha and India

Year/ Food items	Cereal & Pulses products	Pulses	Milk Product	All Food (Odisha)	All Food (India)
1993-94	19.87	2.89	4.93	57.78	54.7
2004-05	16.79	2.5	4.74	49.93	42.51
2009-10	11.85	2.68	3.5	48.48	44.39
2011-12	11.11	2.38	3.39	39.26	37.26

[Table 2.10(A)]

Source: NSS 50<sup>th</sup>, 61<sup>st</sup>, 66<sup>th</sup> and 68<sup>th</sup> round (Central Sample)

### Share of Non food items in total expenditure in urban Odisha and India

Year/ Non- Food items	Fuel & Light	Clothing & Footwear	Pan & Tobacco	All Non -Food (Odisha)	All Non -Food (India)
1993-94	7.43	5.25	2.76	42.22	45.3
2004-05	10.39	3.69	1.75	56.06	57.45
2009-10	7.24	5.23	1.77	51.62	55.61
2011-12	7.94	6.27	1.41	60.74	62.74

[Table 2.10(B)]

Source: NSS 50<sup>th</sup>, 61<sup>st</sup>, 66<sup>th</sup> and 68<sup>th</sup> round (Central Sample)

2.9.5 Another noticeable feature is that, the share of food expenditure is higher in rural areas and share of non-food expenditure is higher in urban areas. The percentage decline in food items during the period from 1993-94 to 2011-12 both for rural Odisha/ India and urban Odisha/ India are same, while percentage increase in non-food items is higher in Odisha compared to India both in rural and urban side.

2.9.6 The distribution of Monthly Per capita Consumption Expenditure (MPCE) highlights the differences in level of living of different segments of the population and helps on assessing poverty and inequality. The average MPCE (as per MRP based) of rural Odisha has been estimated at Rs 399.00 and that of urban

Odisha at Rs.757.00 during 2004-05. The corresponding all India estimate is Rs.559 for rural and Rs.1052 for urban areas.

2.9.7 During 2011-12, average MPCE for rural Odisha was estimated at Rs.904 and that for urban at Rs.1830. The corresponding all India estimates are Rs.1287 for rural and Rs.2477 for urban areas. The average MPCE in urban Odisha was 89 percent higher than rural MPCE in 2004-05, while in 2011-12, it increased to 102 percent. The real growth in MPCE is presented in the Table 2.11. In terms of MRP estimates, MPCE in rural Odisha has grown from Rs.422 in 2004-05 to Rs.519.73 in 2011-12 representing compound annual growth rate (CAGR percent) of about 3 percent during the period. Details of MPCE during 2011-12 both for Odisha and India are given at Annexure 2.12.

2.9.8 Urban MPCE has grown from Rs.904 in 2004-05 to Rs.1008.61 in 2011-12, which accounted for a growth rate (CAGR percent) of 3.55 percent over the seven years period.

### Growth in MPCE at current and constant prices, Odisha

Characteristics	Year	
	2004-05	2011-12
MPCE, rural (Rs) (current price)	422.10	904.78
CPI(AL)	100.00	174.07
MPCE, rural (Rs) at 2004-05 prices	422.10	519.73
CAGR %	---	3.02
MPCE, urban (Rs) (current price)	789.80	1830.33
CPI (IW)	100.00	181.47
MPCE, urban (Rs) at 2004-05 prices	789.80	1008.61
CAGR %	---	3.55

[Table 2.11]

Source: NSS 61<sup>st</sup> round 68<sup>th</sup> round (Central Sample)

2.9.9 To show how MPCE is distributed over population, it is divided into ten classes called deciles class. The first decile of the distribution of MPCE over the population of any region or domain is the level of MPCE below which 10 percent of the population lie, the second deciles, the level below which 20 percent of the population lie, and so on. (Table 2.12). The poorest 10 percent of rural population of Odisha spent on an average of Rs.198 per person per month in 2004-05 and it increased to Rs.458 in 2011-12. The average annual growth in above MPCE group stood at 12.8 percent. The top 10 percent of rural population had an average MPCE of Rs.1131 and it rose to Rs.2395 during 2011-12. The average annual growth rate of above group was 11.3 percent during 2004-11. The MPCE of top 10 percent rural population was about 5.7 times that of the bottom 10 percent in 2004-05 and the above gap was reduced to 5.22 percent in 2011.12.

2.9.10 However, in case of poorest 10 percent of urban population of Odisha, the average MPCE was Rs.252 in 2004-05 and it increased to Rs.594.8 in 2011-12, which grew at an average growth rate of 13.04 percent during 2004-11. While the top 10 percent urban population had an average MPCE of Rs.2244 in 2004-05 and it was Rs.5750 in 2011-12. The annual average growth rate of MPCE in the above group was 14.4 percent during 2004-11. The average MPCE of top 10 percent urban population was found 8.9 times that of bottom 10 percent in 2004-05 and it rose to 9.7 percent in 2011-12.

#### Average MPCE (Rs) Rural and Urban Odisha across decile classes : MRP based

Deciles Class	2004-05 (Rural)	2011-12 (Rural)	2004-05 (Urban)	2011-12 (Urban)
1 (0-10)	197.8	458.2	252.2	594.8
2 (10-20)	258.2	593.9	342.2	753.4

Deciles Class	2004-05 (Rural)	2011-12 (Rural)	2004-05 (Urban)	2011-12 (Urban)
3 (20-30)	300.9	687.0	396.6	916.0
4 (30-40)	340.9	774.2	453.0	1107.9
5 (40-50)	381.6	867.2	527.4	1381.2
6 (50-60)	428.0	975.2	640.7	1702.5
7 (60-70)	487.2	1099.2	814.7	2072.2
8 (70-80)	570.0	1272.8	1010.2	2562.5
9 (80-90)	708.5	1559.2	1313.5	3269.2
10 (90-100)	1131.3	2394.8	2243.7	5750.4
All size	422.1	904.8	789.8	1830.3

[Table 2.12]

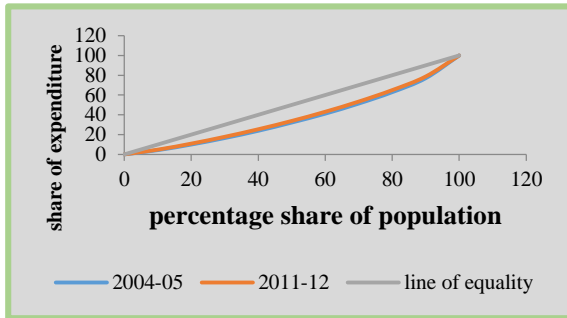
Source: NSS 61<sup>st</sup> and 68<sup>th</sup> round (Central Sample)

## 2.10 Inequality in consumption

2.10.1 Inequality obviously suggests a departure from equality. For studying the inequality for rural and urban sector of Odisha, Monthly Per Capita Consumption Expenditure (MPCE) data and the distribution of population in each MPCE class are used.

2.10.2 The use of the Lorenz curve is an effective way of showing inequality of consumption within and between regions. The cumulative percentage of population is plotted along the horizontal axis, while the cumulative percentage of consumption is plotted along the vertical axis. The curve for rural and urban Odisha shows the actual relationship between the percentage of consumption recipients and the percentage of the consumption they actually receive (Figure 2.12 and 2.13). The area between the Lorenz curve and a line of equality is represented by Ginni coefficient, which is a summary statistics. A Gini coefficient of "0" indicates perfect consumption or income equality, while "1" would imply that a single person incurs all consumption expenditure.

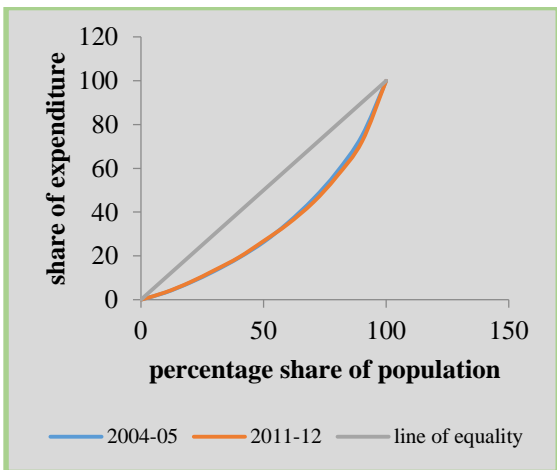
**Lorenz Curve for consumption expenditure for Rural Odisha**



[Figure 2.12]

Source: NSS 61<sup>st</sup> and 68<sup>th</sup> round (Central Sample)

**Lorenz Curve for consumption expenditure for Urban Odisha**



[Figure 2.13]

Source: NSS 61<sup>st</sup> and 68<sup>th</sup> round (Central Sample)

2.10.3 During 2004-05 to 2011-12, the inequality in rural Odisha has marginally declined from 0.26 in 2004-05 to 0.234 in 2011-12. In urban Odisha, the inequality has increased from 0.333 to 0.345 during the same period (Table 2.13).

**Household Consumption Inequality in Rural and Urban Odisha: Ginni Measure**

Year	Rural Odisha	Urban Odisha
2004-05	0.26	0.33
2011-12	0.23	0.35

[Table 2.13]

Source: NSS 61<sup>st</sup> and 68<sup>th</sup> round

**2.11 Impact of Natural Calamities in Odisha**

Odisha is vulnerable to natural shocks over the centuries because of its sub-tropical littoral location. The following 12 major calamities have been identified by Government of India for assistance under Calamity Relief Fund (CRF) to the affected families. These are Flood, Cyclone, Draught, Hail storm, Fire, Earthquake, Cloudburst, Land Slides, Pest attack, Tsunami, Avalanche and Cold Waves/Frost. Recurrent natural calamities like droughts, floods and cyclones have direct bearings on Odisha's growth process. About 952 small and big cyclones, 451 tornadoes and series of heavy floods etc between 1891 to 1970 kept Odisha's economy a victim of cramped development during 20th century. Two major natural disasters like severe cyclones of 1971 and super cyclone of 1999 not only took heavy toll of about 19660 people and thousands of livestock but also badly affected more than 50 lakhs people in their livelihoods and made them homeless. Series of recurrent floods mostly in coastal region and droughts mostly in western & southern region during the decade 2000-2010 adversely impacted on the growth trajectory of Odisha.

Two major natural shocks in Odisha i.e. very severe cyclonic storm, "Phailin", on 12th October, 2013 and very severe cyclonic storm "HUDHUD" on 12th October 2014 extensively devastated the economy of coastal, southern and part of western region of the State.

The Phailin followed by flash floods in October, 2013 adversely affected about 132.36 lakh people in 195 blocks, 64 ULBs, in 19 districts of the State. It not only affected total cropped area of about 11 lakh hectare with an estimated loss of about Rs. 2,300 Crore, but also damaged the houses, livelihoods,

economy, agricultural and physical infrastructure with gigantic magnitude. The hazard resulted in negative growth of agriculture sector during 2013-14. Cyclone continued to grip Odisha even during 2014-15. The very severe cyclonic storm “HUDHUD” hit 16 districts of Odisha namely Ganjam, Gajapati, Puri, Nayagarh, Khordha, Cuttack, Jagatsinghpur, Kendrapara, Jajpur, Balasore, Mayurbhanj, Keonjhar, Bhadrak, Dhenkanal, Koraput and Malkangiri. For the first time, certain southern districts particularly the tribal districts, which had never before come across a cyclonic storm, experienced such a high wind speed. Because of its impressive preparedness, the State Government could evacuate about 2.55 lakh people and lakhs of animal resources and shifted them to safe shelters as a result of which loss of many precious lives could be averted. Odisha Disaster Rapid Action Force (ODRAF), National Disaster Response Force (NDRF), Fire Services teams & Police personnel acted admirably on evacuation, search, rescue & relief operations and road clearance etc. About 33.44 lakh people in 99 Blocks and 37 ULBs of the State were affected by the cyclone HUDHUD with large scale house damage and crop damage and livelihood losses by fishermen, rural artisans, handloom weavers etc.

The State Government has submitted a Memorandum seeking central assistance of Rs.777.12 crore out of National Disaster Response Fund (NDRF) to meet the requirement on immediate relief and restoration. Besides HUDHUD, the State experienced multiple natural calamities like Heavy rain, Floods, Landslides, Heat wave, Fire Accidents, Lightning death, Hailstorms, Whirlwind and Earthquake during the year 2014-15.

Another natural hazard of severe draught hit Odisha's economy during 2015-16 with a decelerating effect on food grain production in the State. Due to proper planning and timely intervention of the State Government, the situations are being tackled very successfully. The recurring features of natural calamities along with their severity and area coverage in Odisha not only hinder the developmental activities but also result in varying degree of growth rates in agriculture, industry and services sector of the State over the years.

As regards disbursement of Agriculture Input Subsidy to the farmers who have sustained crop loss of 33 percent and more due to Drought-2015, an amount of Rs.827.85 crore was allotted in favour of 27 districts out of which an amount of Rs.777.97 crore has already been disbursed to 1913041 affected farmers.

The State is also victim of other major natural calamities .During 2016-17 (as on 31st December 2016), the human death toll due to lightning, fire, sunstroke, hailstorm, drowning, snake bite were 380, 59, 47, 9, 272 and 400 respectively. This is a matter of serious concern.

The State Government has taken up initiatives on certain State specific natural disaster recently. As per the recommendations of the 14th Finance Commission allowing the States to incur expenditure up to 10 percent of the funds available in the State Disaster Response Fund (SDRF), the State Government has declared the following 8 disasters as State Specific Disasters effective from 01.04.2015 i.e. Lightning, Heat wave, Whirl wind, Tornado, Heavy rain, Boat accident (Normal times), Drowning (Normal times) and Snake bite (Normal times).

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# Annexures

**Annexure 2.1.1 :**  
**Key aggregates of State Domestic Product of Odisha at Current Prices**

Sl. No.	Item	(Rs. in Lakh)										Growth over previous year (in %)				
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)				
1.	Gross State Value Added at basic prices	21711688	24573844	27567635	30255256	31711518	34870994	13.18	12.18	9.75	4.81	9.96				
2.	Taxes on Products	2031089	2340292	2715614	3151184	3623265	4179956	15.22	16.04	16.04	14.98	15.36				
3.	Less Subsidies on Products	955550	1086627	1112340	1209349	1146050	1151825	13.72	2.37	8.72	-5.23	0.50				
4.	Gross State Domestic Product (1+2-3)	22787227	25827509	29170909	32197092	34188733	37899126	13.34	12.95	10.37	6.19	10.85				
5.	Consumption of Fixed Capital	2676113	2838712	3549800	3964929	4165156	4492440	6.08	25.05	11.69	5.05	7.86				
6.	Net State Value Added at basic prices (1-5)	19035576	21735131	24017835	26290327	27546361	30378554	14.18	10.50	9.46	4.78	10.28				
7.	Net State Domestic Product (4-5)	2011114	22988797	25621109	28232162	30023577	33406686	14.31	11.45	10.19	6.35	11.27				
8.	Population (Lakh)	422.22	426.51	430.84	435.22	439.63	444.10	1.02	1.02	1.02	1.01	1.02				
9.	Per Capita Gross State Domestic Product (Rupees)	53970	60555	67707	73979	77767	85339	12.20	11.81	9.26	5.12	9.74				
10.	Per Capita Net State Domestic Product (Rupees)	47632	53900	59468	64869	68293	75223	13.16	10.33	9.08	5.28	10.15				

Source : DES, Odisha

**Annexure 2.1.2 :**  
**Key aggregates of State Domestic Product of Odisha at Constant (2011-12) Prices**

Sl. No.	Item	(Rs. in Lakh)										Growth over previous year (in %)				
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)				
1.	Gross State Value Added at basic prices	21711688	22692506	24584948	25960749	27310665	29357020	4.52	8.34	5.60	5.20	7.49				
2.	Taxes on Products	2031089	2136425	2257786	2452571	2650330	2870293	5.19	5.68	8.63	8.06	8.30				
3.	Less Subsidies on Products	955550	991969	924810	941238	838307	790935	3.81	-6.77	1.78	-10.94	-5.65				
4.	Gross State Domestic Product (1+2-3)	22787227	23836962	25917925	27472082	29122687	31436378	4.61	8.73	6.00	6.01	7.94				
5.	Consumption of Fixed Capital	2676113	2706241	3276966	3566997	3793115	4044973	1.13	21.09	8.85	6.34	6.64				
6.	Net State Value Added at basic prices (1-5)	19035576	19986265	21307982	22393752	23517550	25312047	4.99	6.61	5.10	5.02	7.63				
7.	Net State Domestic Product (4-5)	20111114	21130721	22640959	23905085	25329572	27391405	5.07	7.15	5.58	5.96	8.14				
8.	Population (Lakh)	422.22	426.51	430.84	435.22	439.63	444.1	1.02	1.02	1.02	1.01	1.02				
9.	Per Capita Gross State Domestic Product (Rupees)	53970	55888	60157	63122	66244	70787	3.55	7.64	4.93	4.94	6.86				
10.	Per Capita Net State Domestic Product (Rupees)	47632	49543	52551	54926	57616	61678	4.01	6.07	4.52	4.90	7.05				

Source : DES, Odisha

**Annexure 2.2.1 :**  
**Key aggregates of National Income at current prices**

Sl. No.	Item	(Rs. In Crore)										Growth over previous year (in %)				
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (A)	2012-13	2013-14	2014-15	2015-16	2016-17 (A)				
1.	Gross Value Added at basic prices	8106656	9205315	10366266	11470415	12451938	13602175	13.6	12.6	10.7	8.6	9.2				
2.	Taxes on Products	890060	1057977	1180444	1290634	1548769	1590413	18.9	11.6	9.3	20.0	2.7				
3.	Less Subsidies on Products	260677	316656	310075	327300	325376		21.5	-2.1	5.6	-0.6					
4.	Gross Domestic Product (GDP) (1+2-3)	8736039	9946636	11236635	12433749	13675331	15192588	13.9	13.0	10.7	10.0	11.1				
5.	Primary income receivable from ROW (net)	-76824	-116763	-139884	-147430	-159779		52.0	19.8	5.4	8.4					
6.	Gross National Income (GNI) (4+5)	8659215	9829873	11096751	12286319	13515551	15002477	13.5	12.9	10.7	10.0	11.0				
7.	Consumption of Fixed Capital	917141	1059977	1195575	1325173	1432458	1621887	15.6	12.8	10.8	8.1	13.2				
8.	Net Value Added at basic prices (1-7)	7189515	8145338	9170691	10145242	11019480	11980288	13.3	12.6	10.6	8.6	8.7				
9.	Net Domestic Product (4-7)	7818898	8886659	10041060	11108576	12242873	13570701	13.7	13.0	10.6	10.2	10.8				
10.	Net National Income (NNI) (6-7)	7742074	8769896	9901176	10961146	12083093	13380590	13.3	12.9	10.7	10.2	10.7				
11.	Population (in million)	1220	1235	1251	1267	1283	1299	1.2	1.3	1.3	1.3	1.2				
12.	Per Capita GDP (In Rupees)	71607	80540	89821	98135	106589	116956	12.5	11.5	9.3	8.6	9.7				
13.	Per Capita GNI (In Rupees)	70977	79594	88703	96972	105343	115493	12.1	11.4	9.3	8.6	9.6				
14.	Per Capita NNI (In Rupees)	63460	71011	79146	86513	94178	103007	11.9	11.5	9.3	8.9	9.4				

Source : Press Note, NAD, CSO



**Annexure 2.2.2 :**  
**Key aggregates of National Income at constant (2011-12) price**

Sl. No.	Item	(Rs. In Crore)										Growth over previous year (in %)				
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (A)	2012-13	2013-14	2014-15	2015-16	2016-17 (A)				
1.	Gross Value Added at basic prices	8106656	8548229	9079250	9709347	10469720	11153038	5.4	6.2	6.9	7.8	6.5				
2.	Taxes on Products	890060	960949	1010149	1090388	1161389	1001760	8.0	5.1	7.9	6.5	-13.7				
3.	Less Subsidies on Products	260677	294053	271577	277049	273580		12.8	-7.6	2.0	-1.3					
4.	Gross Domestic Product (GDP) (1+2-3)	8736039	9215125	9817822	10522686	11357529	12154797	5.5	6.5	7.2	7.9	7.0				
5.	Primary income receivable from ROW (net)	-76824	-108292	-122312	-124434	-134596		41.0	12.9	1.7	8.2					
6.	Gross National Income (GNI) (4+5)	8659215	9106834	9695510	10398251	11222933	11993865	5.2	6.5	7.2	7.9	6.9				
7.	Consumption of Fixed Capital	917141	1009217	1099002	1185640	1276646	1367459	10.0	8.9	7.9	7.7	7.1				
8.	Net Value Added at basic prices (1-7)	7189515	7539012	7980248	8523706	9193074	9785579	4.9	5.9	6.8	7.9	6.4				
9.	Net Domestic Product (4-7)	7818898	8205908	8718820	9337045	10080883	10787338	4.9	6.3	7.1	8.0	7.0				
10.	Net National Income (NNI) (6-7)	7742074	8097616	8596508	9212611	9946287	10626406	4.6	6.2	7.2	8.0	6.8				
11.	Population (in million)	1220	1235	1251	1267	1283	1299	1.2	1.3	1.3	1.3	1.2				
12.	Per Capita GDP (In Rupees)	71607	74616	78480	83052	88523	93570	4.2	5.2	5.8	6.6	5.7				
13.	Per Capita GNI (In Rupees)	70977	73740	77502	82070	87474	92332	3.9	5.1	5.9	6.6	5.6				
14.	Per Capita NNI (In Rupees)	63460	65568	68717	72712	77524	81805	3.3	4.8	5.8	6.6	5.5				

Source : Press Note, NAD, CSO

**Annexure 2.3.1 :**  
**Gross State Value Added by economic activity of Odisha at current basic prices**

Sl. No.	Economic Activity	Rs. Lakh					
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
1.	Agriculture, Forestry and Fishing	3899782	5319539	5545889	6422978	5923233	6944503
1.1	Crops	2508626	3688187	3713058	4382636	3634239	4435505
1.2	Livestock	538480	649537	735973	788243	862852	982547
1.3	Forestry and Logging	584641	635319	730574	791463	852212	871261
1.4	Fishing and Aquaculture	268035	346496	366283	460636	573930	655191
2.	Mining and Quarrying	2648738	2663875	2861660	2586328	2536315	2565292
	<b>Primary</b>	<b>6548520</b>	<b>7983414</b>	<b>8407548</b>	<b>9009306</b>	<b>8459548</b>	<b>9509795</b>
3.	Manufacturing	4116404	4212453	5168498	5754229	6084214	6369453
4.	Electricity, Gas, Water Supply & Other Utility Services	498975	621278	703664	833067	954884	1028710
5.	Construction	2059629	2074154	2314664	2402396	2595864	2783835
	<b>Secondary</b>	<b>6675009</b>	<b>6907885</b>	<b>8186826</b>	<b>8989693</b>	<b>9634962</b>	<b>10181998</b>
6.	Trade, Repair, Hotels and Restaurants	2035854	2436044	2769620	3149555	3472581	3831417
6.1	Trade & Repair Services	1838866	2218946	2533465	2886789	3186965	3518412
6.2	Hotels & Restaurants	196989	217098	236155	262766	285617	313005
7.	Transport, Storage, Communication & Services related to Broadcasting	1347538	1560857	1771254	2034016	2288366	2560875
7.1	Railways	179466	233719	266785	341494	392608	443594
7.2	Transport by means other than Railways	819369	940402	1039368	1156316	1293477	1443146
7.2.1	Road transport	693450	802859	892415	973144	1104364	1235376
7.2.2	Water transport	41962	42597	42862	50349	50873	53726
7.2.3	Air transport	3421	7232	5311	15354	16298	19684
7.2.4	Services Incidental to Transport	80536	87715	98780	117469	121943	134360
7.3	Storage	13967	15384	18233	22675	23106	26398
7.4	Communication & Services related to Broadcasting	334737	371354	446868	513531	579174	647737
8.	Financial Services	796303	910354	962328	1065147	1192545	1269519
9.	Real estate, Ownership of Dwelling & Professional Services	1707147	1901721	2146627	2348714	2558724	2830137
10.	Public Administration and Defence	863077	980808	1390657	1318221	1333157	1489687
11.	Other Services	1738239	1892760	1932774	2340603	2771634	3197566
	<b>Tertiary</b>	<b>8488159</b>	<b>9682545</b>	<b>10973261</b>	<b>12256258</b>	<b>13617007</b>	<b>15179201</b>
12	<b>TOTAL GSVA at Basic Prices</b>	<b>21711688</b>	<b>24573844</b>	<b>27567635</b>	<b>30255256</b>	<b>31711518</b>	<b>34870994</b>
13	<b>Gross State Domestic Product</b>	<b>22787227</b>	<b>25827509</b>	<b>29170909</b>	<b>32197092</b>	<b>34188733</b>	<b>37899126</b>
14	<b>Per capita GSDP (In Rupees)</b>	<b>53970</b>	<b>60555</b>	<b>67707</b>	<b>73979</b>	<b>77767</b>	<b>85339</b>

Source : DES, Odisha

**Annexure 2.3.2 :**  
**Gross State Value Added by economic activity of Odisha at current basic prices**

Sl. No.	Economic Activity	Percentage Share					
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
<b>1.</b>	Agriculture, Forestry and Fishing	17.96	21.65	20.12	21.23	18.68	19.91
<b>1.1</b>	Crops	11.55	15.01	13.47	14.49	11.46	12.72
<b>1.2</b>	Livestock	2.48	2.64	2.67	2.61	2.72	2.82
<b>1.3</b>	Forestry and Logging	2.69	2.59	2.65	2.62	2.69	2.50
<b>1.4</b>	Fishing and Aquaculture	1.23	1.41	1.33	1.52	1.81	1.88
<b>2.</b>	Mining and Quarrying	12.20	10.84	10.38	8.55	8.00	7.36
	<b>Primary</b>	<b>30.16</b>	<b>32.49</b>	<b>30.50</b>	<b>29.78</b>	<b>26.68</b>	<b>27.27</b>
<b>3.</b>	Manufacturing	18.96	17.14	18.75	19.02	19.19	18.27
<b>4.</b>	Electricity, Gas, Water Supply & Other Utility Services	2.30	2.53	2.55	2.75	3.01	2.95
<b>5.</b>	Construction	9.49	8.44	8.40	7.94	8.19	7.98
	<b>Secondary</b>	<b>30.74</b>	<b>28.11</b>	<b>29.70</b>	<b>29.71</b>	<b>30.38</b>	<b>29.20</b>
<b>6.</b>	Trade, Repair, Hotels and Restaurants	9.38	9.91	10.05	10.41	10.95	10.99
<b>6.1</b>	Trade & Repair Services	8.47	9.03	9.19	9.54	10.05	10.09
<b>6.2</b>	Hotels & Restaurants	0.91	0.88	0.86	0.87	0.90	0.90
<b>7.</b>	Transport, Storage, Communication & Services related to Broadcasting	6.21	6.35	6.43	6.72	7.22	7.34
<b>7.1</b>	Railways	0.83	0.95	0.97	1.13	1.24	1.27
<b>7.2</b>	Transport by means other than Railways	3.77	3.83	3.77	3.82	4.08	4.14
<b>7.2.1</b>	Road transport	3.19	3.27	3.24	3.22	3.48	3.54
<b>7.2.2</b>	Water transport	0.19	0.17	0.16	0.17	0.16	0.15
<b>7.2.3</b>	Air transport	0.02	0.03	0.02	0.05	0.05	0.06
<b>7.2.4</b>	Services Incidental to Transport	0.37	0.36	0.36	0.39	0.38	0.39
<b>7.3</b>	Storage	0.06	0.06	0.07	0.07	0.07	0.08
<b>7.4</b>	Communication & Services related to Broadcasting	1.54	1.51	1.62	1.70	1.83	1.86
<b>8.</b>	Financial Services	3.67	3.70	3.49	3.52	3.76	3.64
<b>9.</b>	Real estate, Ownership of Dwelling & Professional Services	7.86	7.74	7.79	7.76	8.07	8.12
<b>10.</b>	Public Administration and Defence	3.98	3.99	5.04	4.36	4.20	4.27
<b>11.</b>	Other Services	8.01	7.70	7.01	7.74	8.74	9.17
	<b>Tertiary</b>	<b>39.09</b>	<b>39.40</b>	<b>39.80</b>	<b>40.51</b>	<b>42.94</b>	<b>43.53</b>
<b>12</b>	<b>TOTAL GSDP at Basic Prices</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source : DES, Odisha

**Annexure 2.3.3 :**  
**Gross State Value Added by economic activity of Odisha at current basic prices**

Sl. No.	Economic Activity	Growth over previous year				
		2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
<b>1.</b>	Agriculture, Forestry and Fishing	36.41	4.26	15.82	-7.78	17.24
<b>1.1</b>	Crops	47.02	0.67	18.03	-17.08	22.05
<b>1.2</b>	Livestock	20.62	13.31	7.10	9.47	13.87
<b>1.3</b>	Forestry and Logging	8.67	14.99	8.33	7.68	2.24
<b>1.4</b>	Fishing and Aquaculture	29.27	5.71	25.76	24.60	14.16
<b>2.</b>	Mining and Quarrying	0.57	7.42	-9.62	-1.93	1.14
	<b>Primary</b>	<b>21.91</b>	<b>5.31</b>	<b>7.16</b>	<b>-6.10</b>	<b>12.41</b>
<b>3.</b>	Manufacturing	2.33	22.70	11.33	5.73	4.69
<b>4.</b>	Electricity, Gas, Water Supply & Other Utility Services	24.51	13.26	18.39	14.62	7.73
<b>5.</b>	Construction	0.71	11.60	3.79	8.05	7.24
	<b>Secondary</b>	<b>3.49</b>	<b>18.51</b>	<b>9.81</b>	<b>7.18</b>	<b>5.68</b>
<b>6.</b>	Trade, Repair, Hotels and Restaurants	19.66	13.69	13.72	10.26	10.33
<b>6.1</b>	Trade & Repair Services	20.67	14.17	13.95	10.40	10.40
<b>6.2</b>	Hotels & Restaurants	10.21	8.78	11.27	8.70	9.59
<b>7.</b>	Transport, Storage, Communication & Services related to Broadcasting	15.83	13.48	14.83	12.50	11.91
<b>7.1</b>	Railways	30.23	14.15	28.00	14.97	12.99
<b>7.2</b>	Transport by means other than Railways	14.77	10.52	11.25	11.86	11.57
<b>7.2.1</b>	Road transport	15.78	11.15	9.05	13.48	11.86
<b>7.2.2</b>	Water transport	1.51	0.62	17.47	1.04	5.61
<b>7.2.3</b>	Air transport	111.39	-26.56	189.12	6.15	20.78
<b>7.2.4</b>	Services Incidental to Transport	8.91	12.62	18.92	3.81	10.18
<b>7.3</b>	Storage	10.14	18.52	24.36	1.90	14.25
<b>7.4</b>	Communication & Services related to Broadcasting	10.94	20.34	14.92	12.78	11.84
<b>8.</b>	Financial Services	14.32	5.71	10.68	11.96	6.45
<b>9.</b>	Real estate, Ownership of Dwelling & Professional Services	11.40	12.88	9.41	8.94	10.61
<b>10.</b>	Public Administration and Defence	13.64	41.79	-5.21	1.13	11.74
<b>11.</b>	Other Services	8.89	2.11	21.10	18.42	15.37
	<b>Tertiary</b>	<b>14.07</b>	<b>13.33</b>	<b>11.69</b>	<b>11.10</b>	<b>11.47</b>
<b>12</b>	<b>TOTAL GSVA at Basic Prices</b>	<b>13.18</b>	<b>12.18</b>	<b>9.75</b>	<b>4.81</b>	<b>9.96</b>
<b>13</b>	<b>Gross State Domestic Product</b>	<b>13.34</b>	<b>12.95</b>	<b>10.37</b>	<b>6.19</b>	<b>10.85</b>
<b>14</b>	<b>Per capita GSDP</b>	<b>12.20</b>	<b>11.81</b>	<b>9.26</b>	<b>5.12</b>	<b>9.74</b>

Source : DES, Odisha

## Annexure 2.3.4 :

## Gross State Value Added by economic activity of Odisha at constant (2011-12) basic prices

Sl. No.	Economic Activity	Rs. Lakh					
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
1.	Agriculture, Forestry and Fishing	3899782	4512669	4278068	4657383	4021477	4600509
1.1	Crops	2508626	3090082	2810918	3150624	2440440	2948116
1.2	Livestock	538480	550266	602444	579748	599942	617170
1.3	Forestry and Logging	584641	565114	564450	589805	605467	614660
1.4	Fishing and Aquaculture	268035	307207	300256	337205	375627	420563
2.	Mining and Quarrying	2648738	2545707	3134135	2787414	3265346	3334370
	<b>Primary</b>	<b>6548520</b>	<b>7058376</b>	<b>7412203</b>	<b>7444797</b>	<b>7286823</b>	<b>7934879</b>
3.	Manufacturing	4116404	3999269	4797958	5297939	5520977	5866911
4.	Electricity, Gas, Water Supply & Other Utility Services	498975	547856	508226	564063	623666	664646
5.	Construction	2059629	2009624	2144850	2147271	2232424	2302545
	<b>Secondary</b>	<b>6675009</b>	<b>6556749</b>	<b>7451034</b>	<b>8009273</b>	<b>8377068</b>	<b>8834102</b>
6.	Trade, Repair, Hotels and Restaurants	2035854	2264180	2425785	2703923	3061404	3282438
6.1	Trade & Repair Services	1838866	2062399	2219235	2478678	2809844	3014634
6.2	Hotels & Restaurants	196989	201782	206550	225245	251560	267803
7.	Transport, Storage, Communication & Services related to Broadcasting	1347538	1488772	1590892	1758042	1968307	2154797
7.1	Railways	179466	222896	247615	295602	324921	363712
7.2	Transport by means other than Railways	819369	914347	966706	1052335	1187732	1298789
7.2.1	Road transport	693450	780615	830026	885634	1014079	1111802
7.2.2	Water transport	41962	41416	39866	45821	46714	48351
7.2.3	Air transport	3421	7031	4939	13973	14966	17715
7.2.4	Services Incidental to Transport	80536	85284	91875	106906	111974	120920
7.3	Storage	13967	14932	15623	18731	19802	21441
7.4	Communication & Services related to Broadcasting	334737	336598	360948	391374	435853	470855
8.	Financial Services	796303	898381	929172	1018384	1111143	1197880
9.	Real estate, Ownership of Dwelling & Professional Services	1707147	1764397	1871946	1994473	2204664	2367428
10.	Public Administration and Defence	863077	920003	1238462	1152119	1194983	1298847
11.	Other Services	1738239	1741648	1665455	1879738	2106272	2286649
	<b>Tertiary</b>	<b>8488159</b>	<b>9077382</b>	<b>9721711</b>	<b>10506679</b>	<b>11646774</b>	<b>12588039</b>
12	<b>TOTAL GSVA at Basic Prices</b>	<b>21711688</b>	<b>22692506</b>	<b>24584948</b>	<b>25960749</b>	<b>27310665</b>	<b>29357020</b>
13	<b>Gross State Domestic Product</b>	<b>22787227</b>	<b>23836962</b>	<b>25917925</b>	<b>27472082</b>	<b>29122687</b>	<b>31436378</b>
14	<b>Per capita GSDP (In Rupees)</b>	<b>53970</b>	<b>55888</b>	<b>60157</b>	<b>63122</b>	<b>66244</b>	<b>70787</b>

Source : DES, Odisha

## Annexure 2.3.5 :

## Gross State Value Added by economic activity of Odisha at constant (2011-12) basic prices

Sl. No.	Economic Activity	Percentage Share					
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
1.	Agriculture, Forestry and Fishing	17.96	19.89	17.40	17.94	14.72	15.67
1.1	Crops	11.55	13.62	11.43	12.14	8.94	10.04
1.2	Livestock	2.48	2.42	2.45	2.23	2.20	2.10
1.3	Forestry and Logging	2.69	2.49	2.30	2.27	2.22	2.09
1.4	Fishing and Aquaculture	1.23	1.35	1.22	1.30	1.38	1.43
2.	Mining and Quarrying	12.20	11.22	12.75	10.74	11.96	11.36
	<b>Primary</b>	<b>30.16</b>	<b>31.10</b>	<b>30.15</b>	<b>28.68</b>	<b>26.68</b>	<b>27.03</b>
3.	Manufacturing	18.96	17.62	19.52	20.41	20.22	19.98
4.	Electricity, Gas, Water Supply & Other Utility Services	2.30	2.41	2.07	2.17	2.28	2.26
5.	Construction	9.49	8.86	8.72	8.27	8.17	7.84
	<b>Secondary</b>	<b>30.74</b>	<b>28.89</b>	<b>30.31</b>	<b>30.85</b>	<b>30.67</b>	<b>30.09</b>
6.	Trade, Repair, Hotels and Restaurants	9.38	9.98	9.87	10.42	11.21	11.18
6.1	Trade & Repair Services	8.47	9.09	9.03	9.55	10.29	10.27
6.2	Hotels & Restaurants	0.91	0.89	0.84	0.87	0.92	0.91
7.	Transport, Storage, Communication & Services related to Broadcasting	6.21	6.56	6.47	6.77	7.21	7.34
7.1	Railways	0.83	0.98	1.01	1.14	1.19	1.24
7.2	Transport by means other than Railways	3.77	4.03	3.93	4.05	4.35	4.42
7.2.1	Road transport	3.19	3.44	3.38	3.41	3.71	3.79
7.2.2	Water transport	0.19	0.18	0.16	0.18	0.17	0.16
7.2.3	Air transport	0.02	0.03	0.02	0.05	0.05	0.06
7.2.4	Services Incidental to Transport	0.37	0.38	0.37	0.41	0.41	0.41
7.3	Storage	0.06	0.07	0.06	0.07	0.07	0.07
7.4	Communication & Services related to Broadcasting	1.54	1.48	1.47	1.51	1.60	1.60
8.	Financial Services	3.67	3.96	3.78	3.92	4.07	4.08
9.	Real estate, Ownership of Dwelling & Professional Services	7.86	7.78	7.61	7.68	8.07	8.06
10.	Public Administration and Defence	3.98	4.05	5.04	4.44	4.38	4.42
11.	Other Services	8.01	7.67	6.77	7.24	7.71	7.79
	<b>Tertiary</b>	<b>39.09</b>	<b>40.00</b>	<b>39.54</b>	<b>40.47</b>	<b>42.65</b>	<b>42.88</b>
12	<b>TOTAL GSVA at Basic Prices</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source : DES, Odisha

## Annexure 2.3.6 :

## Gross State Value Added by economic activity of Odisha at constant (2011-12) basic prices

Sl. No.	Economic Activity	Growth over previous year				
		2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
1.	Agriculture, Forestry and Fishing	15.72	-5.20	8.87	-13.65	14.40
1.1	Crops	23.18	-9.03	12.09	-22.54	20.80
1.2	Livestock	2.19	9.48	-3.77	3.48	2.87
1.3	Forestry and Logging	-3.34	-0.12	4.49	2.66	1.52
1.4	Fishing and Aquaculture	14.61	-2.26	12.31	11.39	11.96
2.	Mining and Quarrying	-3.89	23.11	-11.06	17.15	2.11
	<b>Primary</b>	<b>7.79</b>	<b>5.01</b>	<b>0.44</b>	<b>-2.12</b>	<b>8.89</b>
3.	Manufacturing	-2.85	19.97	10.42	4.21	6.27
4.	Electricity, Gas, Water Supply & Other Utility Services	9.80	-7.23	10.99	10.57	6.57
5.	Construction	-2.43	6.73	0.11	3.97	3.14
	<b>Secondary</b>	<b>-1.77</b>	<b>13.64</b>	<b>7.49</b>	<b>4.59</b>	<b>5.46</b>
6.	Trade, Repair, Hotels and Restaurants	11.22	7.14	11.47	13.22	7.22
6.1	Trade & Repair Services	12.16	7.60	11.69	13.36	7.29
6.2	Hotels & Restaurants	2.43	2.36	9.05	11.68	6.46
7.	Transport, Storage, Communication & Services related to Broadcasting	10.48	6.86	10.51	11.96	9.47
7.1	Railways	24.20	11.09	19.38	9.92	11.94
7.2	Transport by means other than Railways	11.59	5.73	8.86	12.87	9.35
7.2.1	Road transport	12.57	6.33	6.70	14.50	9.64
7.2.2	Water transport	-1.30	-3.74	14.94	1.95	3.51
7.2.3	Air transport	105.53	-29.75	182.90	7.10	18.37
7.2.4	Services Incidental to Transport	5.90	7.73	16.36	4.74	7.99
7.3	Storage	6.90	4.63	19.89	5.72	8.28
7.4	Communication & Services related to Broadcasting	0.56	7.23	8.43	11.36	8.03
8.	Financial Services	12.82	3.43	9.60	9.11	7.81
9.	Real estate, Ownership of Dwelling & Professional Services	3.35	6.10	6.55	10.54	7.38
10.	Public Administration and Defence	6.60	34.61	-6.97	3.72	8.69
11.	Other Services	0.20	-4.37	12.87	12.05	8.56
	<b>Tertiary</b>	<b>6.94</b>	<b>7.10</b>	<b>8.07</b>	<b>10.85</b>	<b>8.08</b>
12	<b>TOTAL GSVA at Basic Prices</b>	<b>4.52</b>	<b>8.34</b>	<b>5.60</b>	<b>5.20</b>	<b>7.49</b>
13	<b>Gross State Domestic Product</b>	<b>4.61</b>	<b>8.73</b>	<b>6.00</b>	<b>6.01</b>	<b>7.94</b>
14	<b>Per capita GSDP</b>	<b>3.55</b>	<b>7.64</b>	<b>4.93</b>	<b>4.94</b>	<b>6.86</b>

Source : DES, Odisha

**Annexure 2.4.1 :**  
**Net State Value Added by economic activity of Odisha at current basic prices**

Sl. No.	Economic Activity	Rs. Lakh					
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
1.	Agriculture, Forestry and Fishing	3620607	4997577	5174658	6005921	5552731	6499869
1.1	Crops	2276865	3421999	3401548	4033349	3344598	4082005
1.2	Livestock	528438	637600	722204	774448	847751	965351
1.3	Forestry and Logging	578355	628368	722651	782649	842722	861558
1.4	Fishing and Aquaculture	236949	309610	328256	415474	517661	590955
2.	Mining and Quarrying	2254986	2231443	2450519	2180949	2138776	2163210
	<b>Primary</b>	<b>5875593</b>	<b>7229020</b>	<b>7625177</b>	<b>8186870</b>	<b>7691507</b>	<b>8663079</b>
3.	Manufacturing	3273608	3459143	4067727	4532657	4792589	5017274
4.	Electricity, Gas, Water Supply & Other Utility Services	304350	387118	420867	453940	520318	560547
5.	Construction	1963596	1966107	2174133	2256838	2438584	2615166
	<b>Secondary</b>	<b>5541554</b>	<b>5812368</b>	<b>6662727</b>	<b>7243435</b>	<b>7751492</b>	<b>8192987</b>
6.	Trade, Repair, Hotels and Restaurants	1982274	2370054	2689608	3059977	3380986	3739822
6.1	Trade & Repair Services	1794251	2162611	2463946	2808993	3107244	3438692
6.2	Hotels & Restaurants	188023	207443	225663	250985	273742	301130
7.	Transport, Storage, Communication & Services related to Broadcasting	1074690	1257367	1368697	1579818	1788157	2029111
7.1	Railways	139537	188886	211485	277460	318990	360416
7.2	Transport by means other than Railways	651717	750917	805397	930566	1051912	1201581
7.2.1	Road transport	551673	641618	694430	782176	903748	1034761
7.2.2	Water transport	28152	26062	23822	31911	28146	30999
7.2.3	Air transport	910	4070	2594	12293	13017	16403
7.2.4	Services Incidental to Transport	70981	79167	84551	104185	107001	119418
7.3	Storage	11922	13201	15393	18945	19306	22056
7.4	Communication & Services related to Broadcasting	271514	304363	336423	352846	397949	445058
8.	Financial Services	783729	894227	946268	1045981	1171086	1246675
9.	Real estate, Ownership of Dwelling & Professional Services	1520729	1674815	1873545	2036560	2218658	2453999
10.	Public Administration and Defence	666151	762906	1089498	989607	1000820	1118329
11.	Other Services	1590856	1734373	1762316	2148079	2543656	2934553
	<b>Tertiary</b>	<b>7618428</b>	<b>8693743</b>	<b>9729931</b>	<b>10860022</b>	<b>12103363</b>	<b>13522489</b>
12	<b>TOTAL NSVA at Basic Prices</b>	<b>19035576</b>	<b>21735131</b>	<b>24017835</b>	<b>26290327</b>	<b>27546361</b>	<b>30378554</b>
13	<b>Net State Domestic Product</b>	<b>20111114</b>	<b>22988797</b>	<b>25621109</b>	<b>28232162</b>	<b>30023577</b>	<b>33406686</b>
14	<b>Per capita NSDP (In Rupees)</b>	<b>47632</b>	<b>53900</b>	<b>59468</b>	<b>64869</b>	<b>68293</b>	<b>75223</b>

Source : DES, Odisha



**Annexure 2.4.2 :**  
**Net State Value Added by economic activity of Odisha at constant (2011-12) basic prices**

Sl. No.	Economic Activity	Rs. Lakh					
		2011-12 (1st R)	2012-13 (1st R)	2013-14 (1st R)	2014-15 (1st R)	2015-16 (1st R)	2016-17 (A)
1.	Agriculture, Forestry and Fishing	3620607	4214297	3960150	4318827	3741393	4269588
1.1	Crops	2276865	2844013	2545586	2869363	2222578	2684932
1.2	Livestock	528438	539209	590241	567868	587648	604523
1.3	Forestry and Logging	578355	558662	557432	582244	597705	606780
1.4	Fishing and Aquaculture	236949	272412	266891	299353	333462	373354
2.	Mining and Quarrying	2254986	2133999	2757601	2428945	2845414	2905562
	<b>Primary</b>	<b>5875593</b>	<b>6348296</b>	<b>6717751</b>	<b>6747773</b>	<b>6586807</b>	<b>7175150</b>
3.	Manufacturing	3273608	3273850	3765820	4174364	4350101	4622669
4.	Electricity, Gas, Water Supply & Other Utility Services	304350	322167	242969	215475	238244	253899
5.	Construction	1963596	1906542	2012614	2014515	2094404	2160189
	<b>Secondary</b>	<b>5541554</b>	<b>5502559</b>	<b>6021404</b>	<b>6404354</b>	<b>6682749</b>	<b>7036757</b>
6.	Trade, Repair, Hotels and Restaurants	1982274	2201986	2352926	2624581	2969809	3190843
6.1	Trade & Repair Services	1794251	2009350	2156000	2409832	2730124	2934914
6.2	Hotels & Restaurants	188023	192637	196927	214749	239685	255929
7.	Transport, Storage, Communication & Services related to Broadcasting	1074690	1197795	1213121	1338325	1489804	1654799
7.1	Railways	139537	180852	197142	238363	262004	293284
7.2	Transport by means other than Railways	651717	732897	749876	846286	946167	1057224
7.2.1	Road transport	551673	626277	646812	711445	813464	911187
7.2.2	Water transport	28152	25544	22172	28940	23987	25625
7.2.3	Air transport	910	3995	2416	11169	11684	14434
7.2.4	Services Incidental to Transport	70981	77081	78477	94732	97032	105978
7.3	Storage	11922	12874	13042	15452	16336	17688
7.4	Communication & Services related to Broadcasting	271514	271173	253061	238224	265297	286603
8.	Financial Services	783729	882747	913891	1000605	1091744	1176967
9.	Real estate, Ownership of Dwelling & Professional Services	1520729	1551685	1623838	1719340	1900535	2040846
10.	Public Administration and Defence	666151	710610	957573	852737	884463	961337
11.	Other Services	1590856	1590586	1507477	1706038	1911639	2075347
	<b>Tertiary</b>	<b>7618428</b>	<b>8135411</b>	<b>8568827</b>	<b>9241625</b>	<b>10247994</b>	<b>11100139</b>
12	<b>TOTAL NSVA at Basic Prices</b>	<b>19035576</b>	<b>19986265</b>	<b>21307982</b>	<b>22393752</b>	<b>23517550</b>	<b>25312047</b>
13	<b>Net State Domestic Product</b>	<b>20111114</b>	<b>21130721</b>	<b>22640959</b>	<b>23905085</b>	<b>25329572</b>	<b>27391405</b>
14	<b>Per capita NSDP (In Rupees)</b>	<b>47632</b>	<b>49543</b>	<b>52551</b>	<b>54926</b>	<b>57616</b>	<b>61678</b>

Source : DES, Odisha

## Annexure 2.5.1 :

## Gross State Domestic Product of different States at current prices (2011-12 base) (As on 01.08.2016)

Sl. No.	State/UT	Value (Rs. Crore)					Growth over previous year (%)			
		2011-12	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	Andhra Pradesh	379230	410961	468494	532922	603376	8.37	14.00	13.75	13.22
2	Arunachal Pradesh	11065	12535	14498	16450	19492	13.29	15.66	13.47	18.49
3	Assam	143212	157406	174884	195145	NA	9.91	11.10	11.59	NA
4	Bihar	247287	282168	329475	410862	486430	14.11	16.77	24.70	18.39
5	Chhattisgarh	158074	178839	197330	222990	NA	13.14	10.34	13.00	NA
6	Goa	42253	38647	42243	45548	NA	-8.53	9.31	7.82	NA
7	Gujarat	605456	712123	806745	895202	NA	17.62	13.29	10.96	NA
8	Haryana	300756	350407	395748	441864	NA	16.51	12.94	11.65	NA
9	Himachal Pradesh	72720	82294	92589	101108	NA	13.17	12.51	9.20	NA
10	Jammu & Kashmir	77945	86537	97400	102681	NA	11.02	12.55	5.42	NA
11	Jharkhand	150918	174724	194013	220729	NA	15.77	11.04	13.77	NA
12	Karnataka	602655	690015	797750	907839	NA	14.50	15.61	13.80	NA
13	Kerala	364048	412313	462916	519896	NA	13.26	12.27	12.31	NA
14	Madhya Pradesh	301699	363826	401372	451348	501939	20.59	10.32	12.45	11.21
15	Maharashtra	1272967	1448466	1647506	1792122	NA	13.79	13.74	8.78	NA
16	Manipur	12226	13238	15441	NA	NA	8.27	16.64	NA	NA
17	Meghalaya	19840	21597	23697	25172	27305	8.86	9.72	6.22	8.47
18	Mizoram	7259	8362	9849	11458	NA	15.20	17.79	16.33	NA
19	Nagaland	11839	13619	16059	17727	NA	15.03	17.92	10.39	NA
20	Odisha	225283	255273	277271	309807	332329	13.31	8.62	11.73	7.27
21	Punjab	266628	297734	334714	368011	NA	11.67	12.42	9.95	NA
22	Rajasthan	436465	494004	549701	612194	NA	13.18	11.27	11.37	NA
23	Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Tamil Nadu	751910	851485	986461	1120620	NA	13.24	15.85	13.60	NA
25	Telangana	361701	404105	460172	522001	583117	11.72	13.87	13.44	11.71
26	Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Uttar Pradesh	721396	812210	946508	1041997	NA	12.59	16.53	10.09	NA
28	Uttarakhand	116165	132919	148035	164931	185753	14.42	11.37	11.41	12.63
29	West Bengal	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Andaman & Nicobar Islands	3712	4341	4776	5173	NA	16.94	10.00	8.32	NA
31	Chandigarh	18768	21609	24996	29368	NA	15.13	15.68	17.49	NA
32	Delhi	343260	391071	446807	494460	NA	13.93	14.25	10.67	NA
33	Puducherry	16818	18875	21113	23747	NA	12.23	11.85	12.48	NA
	All-India GDP	8736039	9951344	11272764	12488205	13567192	13.91	13.28	10.78	8.64

Source: For Sl. No. 1-33 -- Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Note : The States of Sikkim, Tripura and West Bengal have not finalized the estimates of new series with base year 2011-12. Estimates of these States, as on July 31, 2015, with base year 2004-05 are available separately on Ministry's website.

## Annexure 2.5.2 :

## Gross State Domestic Product of different States at constant (2011-12) prices (As on 01.08.2016)

Sl. No.	State/UT	Value (Rs. Crore)					Growth over previous year (%)			
		2011-12	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	Andhra Pradesh	379230	379623	411886	444752	493641	0.10	8.50	7.98	10.99
2	Arunachal Pradesh	11065	11261	12476	13275	14122	1.78	10.78	6.41	6.38
3	Assam	143212	143112	151820	156895	NA	-0.07	6.08	3.34	NA
4	Bihar	247287	255934	274319	317016	349558	3.50	7.18	15.56	10.27
5	Chhattisgarh	158074	167232	175091	188830	NA	5.79	4.70	7.85	NA
6	Goa	42253	39510	40015	43141	NA	-6.49	1.28	7.81	NA
7	Gujarat	605456	671074	726831	782820	NA	10.84	8.31	7.70	NA
8	Haryana	300756	321621	339491	366584	NA	6.94	5.56	7.98	NA
9	Himachal Pradesh	72720	77380	82866	89050	NA	6.41	7.09	7.46	NA
10	Jammu & Kashmir	77945	80124	85997	85168	NA	2.80	7.33	-0.96	NA
11	Jharkhand	150918	163250	171424	190353	NA	8.17	5.01	11.04	NA
12	Karnataka	602655	637893	681889	734988	NA	5.85	6.90	7.79	NA
13	Kerala	364048	387693	405308	432361	NA	6.50	4.54	6.67	NA
14	Madhya Pradesh	301699	336716	344525	367828	405199	11.61	2.32	6.76	10.16
15	Maharashtra	1272967	1357116	1441843	1524846	NA	6.61	6.24	5.76	NA
16	Manipur	12226	12437	13711	NA	NA	1.73	10.24	NA	NA
17	Meghalaya	19840	20319	21177	21661	22704	2.42	4.22	2.28	4.82
18	Mizoram	7259	7778	8661	9429	NA	7.15	11.36	8.86	NA
19	Nagaland	11839	12442	13656	14648	NA	5.09	9.76	7.26	NA
20	Odisha	225283	233214	244232	259468	275450	3.52	4.72	6.24	6.16
21	Punjab	266628	280823	298581	313276	NA	5.32	6.32	4.92	NA
22	Rajasthan	436465	454987	482605	512095	NA	4.24	6.07	6.11	NA
23	Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Tamil Nadu	751910	789366	867682	942736	NA	4.98	9.92	8.65	NA
25	Telangana	361701	370432	394248	429001	468656	2.41	6.43	8.82	9.24
26	Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Uttar Pradesh	721396	749404	784879	833160	NA	3.88	4.73	6.15	NA
28	Uttarakhand	116165	124784	133835	143639	154626	7.42	7.25	7.33	7.65
29	West Bengal	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Andaman & Nicobar Islands	3712	4073	4306	4607	NA	9.71	5.72	6.99	NA
31	Chandigarh	18768	20245	22058	24872	NA	7.87	8.95	12.76	NA
32	Delhi	343260	365264	389677	420902	NA	6.41	6.68	8.01	NA
33	Puducherry	16818	17310	18169	20059	NA	2.93	4.96	10.40	NA
	<b>All-India GDP</b>	<b>8736039</b>	<b>9226879</b>	<b>9839434</b>	<b>10552151</b>	<b>11350962</b>	<b>5.62</b>	<b>6.64</b>	<b>7.24</b>	<b>7.57</b>

Source: For Sl. No. 1-33 -- Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Note : The States of Sikkim, Tripura and West Bengal have not finalized the estimates of new series with base year 2011-12. Estimates of these States, as on July 31, 2015, with base year 2004-05 are available separately on Ministry's website.

## Annexure 2.6.1 :

## Net State Domestic Product of different States at current prices (2011-12 base), As on 01.08.2016

Sl. No.	State/UT	Value (Rs. Crore)					Growth over previous year (%)			
		2011-12	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	Andhra Pradesh	339338	369957	421684	479890	542456	9.02	13.98	13.80	13.04
2	Arunachal Pradesh	10231	11562	13359	15024	17696	13.00	15.54	12.46	17.79
3	Assam	129392	142581	157990	175210	NA	10.19	10.81	10.90	NA
4	Bihar	230266	263029	307758	383848	454357	14.23	17.01	24.72	18.37
5	Chhattisgarh	142273	160759	176884	199539	NA	12.99	10.03	12.81	NA
6	Goa	37895	35095	38440	41103	NA	-7.39	9.53	6.93	NA
7	Gujarat	522660	622199	706972	787919	NA	19.04	13.62	11.45	NA
8	Haryana	274370	317728	359473	400623	NA	15.80	13.14	11.45	NA
9	Himachal Pradesh	60536	68921	77400	84810	NA	13.85	12.30	9.57	NA
10	Jammu & Kashmir	65009	72190	82422	86845	NA	11.05	14.17	5.37	NA
11	Jharkhand	137383	160304	177288	204004	NA	16.68	10.59	15.07	NA
12	Karnataka	551597	630526	730286	831328	NA	14.31	15.82	13.84	NA
13	Kerala	328021	371384	418044	470523	NA	13.22	12.56	12.55	NA
14	Madhya Pradesh	268509	316839	348736	393080	436754	18.00	10.07	12.72	11.11
15	Maharashtra	1119192	1271017	1450003	1572037	NA	13.57	14.08	8.42	NA
16	Manipur	10799	11665	13718	NA	NA	8.02	17.60	NA	NA
17	Meghalaya	17950	19466	21364	22767	24608	8.45	9.75	6.57	8.09
18	Mizoram	6404	7375	8672	10100	NA	15.17	17.58	16.47	NA
19	Nagaland	10217	11816	14088	15757	NA	15.65	19.23	11.85	NA
20	Odisha	198522	226885	245324	274660	294070	14.29	8.13	11.96	7.07
21	Punjab	239227	267116	301673	332999	NA	11.66	12.94	10.38	NA
22	Rajasthan	396960	446835	497403	554783	NA	12.56	11.32	11.54	NA
23	Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Tamil Nadu	674902	764955	891063	1012790	NA	13.34	16.49	13.66	NA
25	Telangana	327075	366172	417405	474951	531103	11.95	13.99	13.79	11.82
26	Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Uttar Pradesh	642786	723696	847656	932536	NA	12.59	17.13	10.01	NA
28	Uttarakhand	102797	118348	131662	147284	166027	15.13	11.25	11.87	12.73
29	West Bengal	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Andaman & Nicobar Islands	3138	3713	4115	4457	NA	18.34	10.83	8.29	NA
31	Chandigarh	16930	19508	22683	26764	NA	15.22	16.28	17.99	NA
32	Delhi	314113	357084	409514	452839	NA	13.68	14.68	10.58	NA
33	Puducherry	15160	16984	19097	21555	NA	12.04	12.44	12.87	NA
	<b>All-India GDP</b>	<b>7818898</b>	<b>8891378</b>	<b>10074292</b>	<b>11155025</b>	<b>12118824</b>	<b>13.72</b>	<b>13.30</b>	<b>10.73</b>	<b>8.64</b>

Source: For Sl. No. 1-33 -Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office.

Note : The States of Sikkim, Tripura and West Bengal have not finalized the estimates of new series with base year 2011-12. Estimates of these States, as on July 31, 2015, with base year 2004-05 are available separately on Ministry's website.

## Annexure 2.6.2 :

## Net State Domestic Product of different States at constant (2011-12) prices, As on 01.08.2016

Sl. No.	State/UT	Value (Rs. Crore)					Growth over previous year (%)			
		2011-12	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	Andhra Pradesh	339338	340666	369253	398407	441337	0.39	8.39	7.90	10.78
2	Arunachal Pradesh	10231	10520	11553	12295	13101	2.82	9.82	6.42	6.56
3	Assam	129392	128288	134926	138387	NA	-0.85	5.17	2.56	NA
4	Bihar	230266	237825	254723	294425	324586	3.28	7.10	15.59	10.24
5	Chhattisgarh	142273	150015	156430	168793	NA	5.44	4.28	7.90	NA
6	Goa	37895	36113	36505	39187	NA	-4.70	1.08	7.35	NA
7	Gujarat	522660	585083	634834	687021	NA	11.94	8.50	8.22	NA
8	Haryana	274370	290554	306392	330854	NA	5.90	5.45	7.98	NA
9	Himachal Pradesh	60536	64682	68925	74182	NA	6.85	6.56	7.63	NA
10	Jammu & Kashmir	65009	66488	72373	71874	NA	2.28	8.85	-0.69	NA
11	Jharkhand	137383	149526	156151	175079	NA	8.84	4.43	12.12	NA
12	Karnataka	551597	581412	620809	669078	NA	5.41	6.78	7.78	NA
13	Kerala	328021	348616	365887	391763	NA	6.28	4.95	7.07	NA
14	Madhya Pradesh	268509	291887	296341	316297	349741	8.71	1.53	6.73	10.57
15	Maharashtra	1119192	1188885	1261944	1329308	NA	6.23	6.15	5.34	NA
16	Manipur	10799	10959	12160	NA	NA	1.48	10.96	NA	NA
17	Meghalaya	17950	18288	19048	19509	20340	1.89	4.15	2.42	4.26
18	Mizoram	6404	6836	7579	8232	NA	6.75	10.86	8.62	NA
19	Nagaland	10217	10737	11885	12877	NA	5.09	10.70	8.35	NA
20	Odisha	198522	206151	215022	228561	242308	3.84	4.30	6.30	6.01
21	Punjab	239227	251813	268423	280902	NA	5.26	6.60	4.65	NA
22	Rajasthan	396960	410225	435163	461845	NA	3.34	6.08	6.13	NA
23	Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Tamil Nadu	674902	706885	780039	848804	NA	4.74	10.35	8.82	NA
25	Telangana	327075	334465	355287	387837	424115	2.26	6.23	9.16	9.35
26	Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Uttar Pradesh	642786	666426	697566	740000	NA	3.68	4.67	6.08	NA
28	Uttarakhand	102797	110855	118809	127787	137574	7.84	7.18	7.56	7.66
29	West Bengal	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Andaman & Nicobar Islands	3138	3474	3701	3963	NA	10.72	6.55	7.06	NA
31	Chandigarh	16930	18265	19967	22625	NA	7.89	9.32	13.31	NA
32	Delhi	314113	332829	355237	384252	NA	5.96	6.73	8.17	NA
33	Puducherry	15160	15507	16318	18172	NA	2.29	5.23	11.36	NA
	<b>All-India GDP</b>	<b>7818898</b>	<b>8217675</b>	<b>8737681</b>	<b>9359476</b>	<b>10071224</b>	<b>5.10</b>	<b>6.33</b>	<b>7.12</b>	<b>7.60</b>

Source: For Sl. No. 1-33 - Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office.

Note : The States of Sikkim, Tripura and West Bengal have not finalized the estimates of new series with base year 2011-12. Estimates of these States, as on July 31, 2015, with base year 2004-05 are available separately on Ministry's website.

## Annexure 2.7.1 :

Per capita Net State Domestic Product of different States at current prices (2011-12 base), As on 01.08.2016

Sl. No.	State/UT	Value (Rs.)					Growth over previous year (%)			
		2011-12	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	Andhra Pradesh	68866	74639	84579	95689	107532	8.38	13.32	13.14	12.38
2	Arunachal Pradesh	73082	80964	91686	101033	116725	10.79	13.24	10.19	15.53
3	Assam	41154	44769	48974	53618	NA	8.79	9.39	9.48	NA
4	Bihar	21918	24647	28389	34856	40616	12.45	15.18	22.78	16.52
5	Chhattisgarh	55177	61356	66438	73758	NA	11.20	8.28	11.02	NA
6	Goa	258666	237929	258856	274939	NA	-8.02	8.80	6.21	NA
7	Gujarat	85814	100821	113061	124358	NA	17.49	12.14	9.99	NA
8	Haryana	107343	122571	136734	150260	NA	14.19	11.56	9.89	NA
9	Himachal Pradesh	87721	98996	110209	119720	NA	12.85	11.33	8.63	NA
10	Jammu & Kashmir	51382	56201	63202	65598	NA	9.38	12.46	3.79	NA
11	Jharkhand	41254	47360	51534	58344	NA	14.80	8.81	13.21	NA
12	Karnataka	89717	101451	116238	130897	NA	13.08	14.58	12.61	NA
13	Kerala	97912	110314	123564	138390	NA	12.67	12.01	12.00	NA
14	Madhya Pradesh	36658	42631	46244	51371	56253	16.29	8.48	11.09	9.50
15	Maharashtra	98910	111005	125146	134081	NA	12.23	12.74	7.14	NA
16	Manipur	37589	40169	46740	NA	NA	6.87	16.36	NA	NA
17	Meghalaya	59754	63429	68145	71101	75232	6.15	7.44	4.34	5.81
18	Mizoram	57654	65013	74846	85359	NA	12.76	15.12	14.05	NA
19	Nagaland	51314	58727	69261	76679	NA	14.45	17.94	10.71	NA
20	Odisha	47019	53196	56941	63108	66890	13.14	7.04	10.83	5.99
21	Punjab	85577	94318	105143	114561	NA	10.22	11.48	8.96	NA
22	Rajasthan	57427	63722	69925	76881	NA	10.96	9.73	9.95	NA
23	Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Tamil Nadu	93042	104486	120593	135806	NA	12.30	15.42	12.62	NA
25	Telangana	91664	101602	114669	129182	143023	10.84	12.86	12.66	10.71
26	Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Uttar Pradesh	31886	35358	40790	44197	NA	10.89	15.36	8.35	NA
28	Uttarakhand	101128	114878	126101	139184	154818	13.60	9.77	10.38	11.23
29	West Bengal	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Andaman & Nicobar Islands	81283	94002	102116	108168	NA	15.65	8.63	5.93	NA
31	Chandigarh	159117	180625	206964	240687	NA	13.52	14.58	16.29	NA
32	Delhi	185044	206407	232269	252011	NA	11.54	12.53	8.50	NA
33	Puducherry	119649	130548	143045	157219	NA	9.11	9.57	9.91	NA
	<b>All-India Per Capita NNI</b>	63460	71050	79412	86879	93231	11.96	11.77	9.40	7.31

Source : Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

## Annexure 2.7.2 :

Per capita Net State Domestic Product of different States at constant (2011-12) prices, As on 01.08.2016

Sl. No.	State/UT	Value (Rs.)					Growth over previous year (%)			
		2011-12	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	Andhra Pradesh	68866	68730	74062	79441	87487	-0.20	7.76	7.26	10.13
2	Arunachal Pradesh	p	73667	79292	82682	86421	0.80	7.64	4.27	4.52
3	Assam	41154	40281	41825	42349	NA	-2.12	3.83	1.25	NA
4	Bihar	21918	22285	23497	26736	29015	1.67	5.44	13.79	8.53
5	Chhattisgarh	55177	57255	58755	62394	NA	3.77	2.62	6.19	NA
6	Goa	258666	244833	245823	262124	NA	-5.35	0.40	6.63	NA
7	Gujarat	85814	94807	101525	108433	NA	10.48	7.09	6.80	NA
8	Haryana	107343	112088	116543	124092	NA	4.42	3.97	6.48	NA
9	Himachal Pradesh	87721	92908	98141	104717	NA	5.91	5.63	6.70	NA
10	Jammu & Kashmir	51382	51762	55496	54289	NA	0.74	7.21	-2.17	NA
11	Jharkhand	41254	44176	45390	50071	NA	7.08	2.75	10.31	NA
12	Karnataka	89717	93548	98812	105350	NA	4.27	5.63	6.62	NA
13	Kerala	97912	103551	108147	115225	NA	5.76	4.44	6.54	NA
14	Madhya Pradesh	36658	39273	39296	41336	45046	7.13	0.06	5.19	8.97
15	Maharashtra	98910	103832	108915	113379	NA	4.98	4.90	4.10	NA
16	Manipur	37589	37738	41433	NA	NA	0.40	9.79	NA	NA
17	Meghalaya	59754	59591	60760	60927	62182	-0.27	1.96	0.27	2.06
18	Mizoram	57654	60261	65412	69569	NA	4.52	8.55	6.36	NA
19	Nagaland	51314	53364	58434	62664	NA	3.99	9.50	7.24	NA
20	Odisha	47019	48335	49908	52516	55116	2.80	3.25	5.23	4.95
21	Punjab	85577	88915	93555	96638	NA	3.90	5.22	3.30	NA
22	Rajasthan	57427	58502	61175	64002	NA	1.87	4.57	4.62	NA
23	Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Tamil Nadu	93042	96554	105568	113817	NA	3.77	9.33	7.81	NA
25	Telangana	91664	92804	97604	105488	114212	1.24	5.17	8.08	8.27
26	Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Uttar Pradesh	31886	32560	33567	35072	NA	2.11	3.09	4.48	NA
28	Uttarakhand	101128	107605	113791	120759	128286	6.40	5.75	6.12	6.23
29	West Bengal	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Andaman & Nicobar Islands	81283	87942	91844	96180	NA	8.19	4.44	4.72	NA
31	Chandigarh	159117	169125	182181	203461	NA	6.29	7.72	11.68	NA
32	Delhi	185044	192387	201485	213842	NA	3.97	4.73	6.13	NA
33	Puducherry	119649	119196	122236	132548	NA	-0.38	2.55	8.44	NA
	<b>All-India Per Capita NNI(2011-12 base)</b>	63460	65664	68867	72889	77431	3.47	4.88	5.84	6.23

Source: For Sl. No. 1-33 -- Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Note : The States of Sikkim, Tripura and West Bengal have not finalized the estimates of new series with base year 2011-12. Estimates of these States, as on July 31, 2015, with base year 2004-05 are available separately on Ministry's website.

**Annexure 2.8 :**  
**CPI Index (General) - Current Series, Odisha (From January, 2014 to January, 2016)**

(Base 2012=100)	Year	Month	General Index (All Groups)			Food and beverages			Fuel and light		
			Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
2014	January		115	113.1	114.5	116.7	115.7	116.5	117.7	112.5	116.7
2014	February		112.7	112.9	112.8	112.8	114.8	113.2	117.3	112.7	116.4
2014	March		112.4	112.6	112.5	112.1	113.8	112.5	117.5	112.6	116.6
2014	April		113	113.7	113.2	113.2	116	113.8	118.3	113	117.3
2014	May		115.4	114.9	115.3	116.5	118.8	117	119	113	117.9
2014	June		117.9	116.9	117.6	119.5	122.5	120.1	121.6	113.2	120
2014	July		121.7	119.6	121.1	125.3	128	125.9	122.4	113.2	120.7
2014	August		124.3	121.6	123.5	129.9	132.6	130.5	121.6	113.3	120
2014	September		125.1	120.4	123.8	130.4	129.4	130.2	123.9	113.8	122
2014	October		124.4	119.7	123.1	128.9	127.3	128.6	124.2	113.8	122.2
2014	November		124	119.5	122.7	128.1	126.4	127.7	122.9	116	121.6
2014	December		121.9	118.4	120.9	125	123	124.6	119.8	116.1	119.1
2015	January		121.2	117.9	120.3	122.5	121.5	122.3	124.5	115.5	122.8
2015	February		121.8	117.9	120.7	122.1	121.7	122	128.2	115.4	125.8
2015	March		122.2	118.7	121.2	122.5	122.9	122.6	128.7	115.5	126.2
2015	April		122.6	119	121.6	123	123.2	123	128.8	116.9	126.5
2015	May		124.3	120.1	123.1	125.5	124.5	125.3	127.7	119.1	126.1
2015	June		126.7	122.2	125.4	129.5	128.7	129.3	126.8	119.4	125.4
2015	July		127.8	122.5	126.3	130.6	129.2	130.3	129.3	119.7	127.5
2015	August		130.2	123.3	128.3	134.3	131	133.6	128.8	119	126.9
2015	September		130.5	123.6	128.6	135	132.7	134.5	123.9	118	122.8
2015	October		132.9	124	130.4	138.3	133.3	137.3	126.4	116.9	124.6
2015	November		133.9	123.9	131.1	139.2	132.3	137.8	128.8	117.2	126.6
2015	December		132.9	123	130.1	136.8	129.1	135.2	128.6	118.4	126.7
2016	January		132.5	123.3	129.9	136.5	129.1	135	126.6	119.4	125.2

Source : CSO, New Delhi



## Annexure 2.9.1 :

Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR) and Un-employment Rate (UR) of different States (per 1000 persons aged 15 years & above) under Usual Principal Status Approach, 2013-14

Sl. No.	Name of the State	L.F.P.R. (RU + UR)			W. P. R. (RU+UR)			U.R. ( RU + UR )		
		Male	Female	Person	Male	Female	Person	Male	Female	Person
1	Andhra Pradesh	820	474	645	795	454	622	30	43	35
2	Arunachal Pradesh	663	495	580	581	414	499	123	164	140
3	Assam	817	230	537	782	196	503	43	149	64
4	Bihar	775	156	495	727	137	461	61	119	70
5	Chhatisgarh	798	459	633	769	435	606	36	52	42
6	Delhi	688	105	417	660	90	396	40	138	52
7	Goa	735	277	514	677	226	459	79	184	106
8	Gujarat	797	241	530	789	236	524	10	18	12
9	Haryana	725	125	444	693	115	423	43	80	48
10	Himachal Pradesh	759	433	600	706	396	555	69	85	75
11	Jamu & Kashmir	716	143	443	658	108	397	80	242	105
12	jHarkhand	782	156	489	731	138	453	66	120	74
13	Karnatak	788	319	558	776	310	548	15	28	18
14	Kerala	720	299	497	687	218	438	47	270	108
15	Madhya Pradesh	827	294	577	803	286	560	29	29	29
16	Maharashtra	750	340	554	730	320	539	27	30	28
17	Manipur	727	324	527	677	292	486	69	100	78
18	Meghalaya	750	475	617	725	442	587	34	71	48
19	Mizoram	794	511	656	767	488	631	34	44	34
20	Nagaland	653	340	509	602	296	461	78	130	94
21	Odisha	794	223	522	754	201	491	50	100	60
22	Punjab	724	109	432	695	88	407	40	190	58
23	Rajasthan	745	218	498	707	191	466	50	122	65
24	Sikkim	774	359	587	706	236	495	87	344	158
25	Tamil Nadu	784	374	581	763	253	560	28	56	36
26	Telangana	787	535	663	769	509	641	23	48	33
27	Tripura	808	221	513	754	156	453	67	294	116
28	Uttarakhanda	697	202	450	651	175	414	65	132	80
29	Uttar Pradesh	614	96	460	581	77	431	54	195	63
30	West Bengal	804	164	496	769	148	470	44	97	52
31	A & N Island	759	381	586	685	279	498	98	268	149
32	Chandigarh	663	124	408	641	123	397	32	6	28
33	Dadra & Nagar Haveli	720	135	441	711	103	421	13	239	46
34	Daman & Diu	728	34	462	688	19	432	55	429	66
35	Lakshadweep	673	238	455	624	175	399	73	263	123
36	Puducherry	706	278	484	642	255	441	91	85	89
	<b>All India</b>	<b>744</b>	<b>258</b>	<b>525</b>	<b>714</b>	<b>238</b>	<b>499</b>	<b>41</b>	<b>77</b>	<b>49</b>

Source: Labour Bureau, Chandigarh

## Annexure 2.9.2 :

Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR) and Un-employment Rate (UR) of different States (per 1000 persons aged 15 years & above) under Usual Principal & Subsidiary Status Approach, 2013-14

Sl. No.	Name of the State	L.F.P.R. (RU + UR)			W. P. R. (RU+UR)			U.R. ( RU + UR )		
		Male	Female	Person	Male	Female	Person	Male	Female	Person
1	Andhra Pradesh	826	513	668	805	496	648	26	34	29
2	Arunachal Pradesh	747	609	679	703	561	634	59	78	67
3	Assam	838	360	610	823	339	593	18	58	29
4	Bihar	777	181	508	737	167	480	53	75	56
5	Chhatisgarh	813	520	670	795	510	656	22	20	21
6	Delhi	690	111	421	664	100	402	37	96	44
7	Goa	738	309	530	685	260	479	71	159	96
8	Gujarat	798	247	533	791	245	529	8	8	8
9	Haryana	729	172	469	709	165	455	26	38	29
10	Himachal Pradesh	785	604	697	770	594	684	19	16	18
11	Jamu & Kashmir	723	194	471	676	164	433	64	156	82
12	jharkhand	832	465	660	817	457	648	18	17	18
13	Karnatak	793	353	578	782	345	568	14	23	17
14	Kerala	734	347	529	708	278	480	36	199	93
15	Madhya Pradesh	835	347	606	815	340	592	23	20	23
16	Maharashtra	756	354	564	740	346	552	21	23	22
17	Manipur	739	526	634	713	508	612	35	34	34
18	Meghalaya	793	612	705	779	589	687	18	38	26
19	Mizoram	821	629	727	808	613	712	16	25	20
20	Nagaland	671	375	534	628	347	498	64	75	67
21	Odisha	802	301	564	770	285	540	39	53	43
22	Punjab	724	114	435	698	94	411	37	176	54
23	Rajasthan	752	348	563	727	339	545	33	26	31
24	Sikkim	804	569	698	764	507	648	49	109	71
25	Tamil Nadu	786	416	603	766	396	583	26	48	33
26	Telangana	794	546	672	777	521	651	21	45	31
27	Tripura	823	349	585	786	314	549	45	102	62
28	Uttarakhanda	706	286	496	674	264	469	46	76	55
29	Uttar Pradesh	647	155	501	625	140	481	34	97	40
30	West Bengal	806	187	508	779	172	487	34	77	42
31	A & N Island	782	422	617	716	325	537	84	228	130
32	Chandigarh	663	124	408	641	123	397	32	6	28
33	Dadra & Nagar Haveli	720	135	441	711	103	421	13	239	46
34	Daman & Diu	728	34	462	688	19	432	55	429	66
35	Lakshadweep	706	252	479	666	192	428	57	239	105
36	Puducherry	706	279	485	642	257	442	91	80	88
	All India	757	311	556	735	296	537	29	49	34

Source : Labour Bureau, Chandigarh

**Annexure 2.10 :**  
**Employment in the Organised Sector in Odisha (2004 to 2015)**

( in lakh)

Year	Public Sector		Private Sector		Total Organised sector employment	Women employees in Organised sector	Women employees to total employees (Percent)
	Total	Women	Total	Women			
2004	6.57	0.96	0.89	0.11	7.46	1.07	14.3
2005	6.55	1	0.9	0.11	7.45	1.11	14.9
2006	6.27	1	0.89	0.11	7.16	1.11	14.9
2007	5.98	0.92	0.9	0.1	6.88	1.02	14.8
2008	5.98	1.03	1.02	0.09	7	1.12	16
2009	6.19	1.03	1.16	0.11	7.35	1.14	15.5
2010	6.08	1.06	1.23	0.12	7.31	1.18	16.2
2011	6.05	1.09	1.17	0.12	7.22	1.21	16.8
2012	5.88	1.04	1.25	0.14	7.13	1.18	16.5
2013	6.78	1	1.17	0.12	7.95	1.12	14.03
2014	5.39	1	1.19	0.11	6.58	1.1	16.7
2015	4.89	0.88	1.04	0.1	5.93	0.98	16.5

Source : Directorate of Employment, Odisha

**Annexure 2.11 :**  
**District-wise Occupational Classification of Workers in Odisha**  
**(2011 Census)**

District	Main Workers (Nos.)			Marginal workers (Nos.)		
	Total	Rural	Urban	Total	Rural	Urban
Angul	3,17,547	2,57,456	60,091	2,08,973	1,98,171	10,802
Balasore	6,18,064	5,44,455	73,609	3,14,643	3,02,716	11,927
Bargarh	4,74,390	4,26,776	47,614	2,87,702	2,80,109	7,593
Bhadrak	3,28,097	2,82,414	45,683	1,40,502	1,28,740	11,762
Bolangir	4,02,227	3,46,025	56,202	3,18,374	3,07,264	11,110
Boudh	1,23,724	1,17,656	6,068	95,733	94,667	1,066
Cuttack	6,96,274	4,78,649	2,17,625	2,40,091	2,05,250	34,841
Deogarh	83,408	76,904	6,504	82,027	80,486	1,541
Dhenkanal	2,77,338	2,45,779	31,559	1,58,195	1,52,607	5,588
Gajapati	1,70,371	1,49,121	21,250	1,23,562	1,18,144	5,418
Ganjam	9,00,744	6,76,888	2,23,856	6,01,028	5,55,034	45,994
Jagatsinghpur	2,90,170	2,55,228	34,942	1,13,479	1,09,149	4,330
Jajpur	4,07,564	3,72,543	35,021	1,44,670	1,39,062	5,608
Jharsuguda	1,72,069	1,03,420	68,649	75,638	65,684	9,954
Kalahandi	3,76,757	3,41,282	35,475	3,75,173	3,67,994	7,179
Kandhamal	1,67,112	1,45,835	21,277	1,88,237	1,83,842	4,395
Kendrapara	3,22,265	2,99,189	23,076	1,44,625	1,40,509	4,116

<b>Kendujhar</b>	4,42,497	3,68,952	73,545	3,24,017	3,13,494	10,523
<b>Khordha</b>	6,32,625	2,91,625	3,41,000	1,59,568	1,08,017	51,551
<b>Koraput</b>	3,96,460	3,23,033	73,427	2,96,946	2,87,580	9,366
<b>Malkangiri</b>	1,79,030	1,63,217	15,813	1,31,636	1,28,255	3,381
<b>Mayurbhanj</b>	5,48,390	4,93,359	55,031	6,75,144	6,62,964	12,180
<b>Nuapada</b>	1,51,694	1,41,621	10,073	1,53,744	1,51,261	2,483
<b>Nayagarh</b>	2,29,076	2,08,001	21,075	1,14,557	1,10,228	4,329
<b>Nabarangpur</b>	2,79,115	2,54,500	24,615	3,31,791	3,22,672	9,119
<b>Puri</b>	4,50,536	3,66,582	83,954	1,71,140	1,61,345	9,795
<b>Rayagada</b>	2,27,815	1,83,867	43,948	2,39,307	2,29,832	9,475
<b>Sambalpur</b>	3,36,854	2,38,789	98,065	1,68,986	1,51,753	17,233
<b>Sonepur</b>	1,70,218	1,55,169	15,049	1,16,443	1,13,048	3,395
<b>Sundargarh</b>	5,35,112	3,15,612	2,19,500	3,38,115	3,09,890	28,225
<b>Odisha</b>	1,07,07,543	86,23,947	20,83,596	68,34,046	64,79,767	3,54,279

Source: Census of India

#### Annexure 2.11

(contd.) : District-wise Occupational Classification of Workers in Odisha (2011 Census)

District	Total workers (Nos.)			% of Main Workers to Total Workers	% of Marginal Workers to Total Workers	Work Participation Rate		
	Total	Rural	Urban			Total	Rural	Urban
<b>Angul</b>	5,26,520	4,55,627	70,893	60.31	39.69	41.3	42.7	34.3
<b>Balasore</b>	9,32,707	8,47,171	85,536	66.27	33.73	40.2	41	33.8
<b>Bargarh</b>	7,62,092	7,06,885	55,207	62.25	37.75	51.4	53.1	36.8
<b>Bhadrak</b>	4,68,599	4,11,154	57,445	70.02	29.98	31.1	31.1	30.9
<b>Bolangir</b>	7,20,601	6,53,289	67,312	55.82	44.18	43.7	45	34.1
<b>Boudh</b>	2,19,457	2,12,323	7,134	56.38	43.62	49.7	50.5	34.9
<b>Cuttack</b>	9,36,365	6,83,899	2,52,466	74.36	25.64	35.7	36.2	34.3
<b>Deogarh</b>	1,65,435	1,57,390	8,045	50.42	49.58	52.9	54.2	35.9
<b>Dhenkanal</b>	4,35,533	3,98,386	37,147	63.68	36.32	36.5	37	31.6
<b>Gajapati</b>	2,93,933	2,67,265	26,668	57.96	42.04	50.9	52.7	37.7
<b>Ganjam</b>	15,01,772	12,31,922	2,69,850	59.98	40.02	42.6	44.6	35.1
<b>Jagatsinghpur</b>	4,03,649	3,64,377	39,272	71.89	28.11	35.5	35.7	33.9
<b>Jajpur</b>	5,52,234	5,11,605	40,629	73.8	26.2	30.2	30.2	30.1
<b>Jharsuguda</b>	2,47,707	1,69,104	78,603	69.46	30.54	42.7	48.5	34
<b>Kalahandi</b>	7,51,930	7,09,276	42,654	50.11	49.89	47.7	48.8	35
<b>Kandhamal</b>	3,55,349	3,29,677	25,672	47.03	52.97	48.5	49.9	35.5
<b>Kendrapara</b>	4,66,890	4,39,698	27,192	69.02	30.98	32.4	32.4	32.6
<b>Kendujhar</b>	7,66,514	6,82,446	84,068	57.73	42.27	42.5	44.1	33.2
<b>Khordha</b>	7,92,193	3,99,642	3,92,551	79.86	20.14	35.2	34.2	36.2
<b>Koraput</b>	6,93,406	6,10,613	82,793	57.18	42.82	50.3	52.9	36.6
<b>Malkangiri</b>	3,10,666	2,91,472	19,194	57.63	42.37	50.7	51.7	38.8
<b>Mayurbhanj</b>	12,23,534	11,56,323	67,211	44.82	55.18	48.6	49.7	34.8

<b>Nuapada</b>	3,05,438	2,92,882	12,556	49.66	50.34	50	50.8	36.9
<b>Nayagarh</b>	3,43,633	3,18,229	25,404	66.66	33.34	35.7	36	31.9
<b>Nabarangpur</b>	6,10,906	5,77,172	33,734	45.69	54.31	50	50.9	38.5
<b>Puri</b>	6,21,676	5,27,927	93,749	72.47	27.53	36.6	36.8	35.4
<b>Rayagada</b>	4,67,122	4,13,699	53,423	48.77	51.23	48.3	50.4	36.4
<b>Sambalpur</b>	5,05,840	3,90,542	1,15,298	66.59	33.41	48.6	53.3	37.4
<b>Sonepur</b>	2,86,661	2,68,217	18,444	59.38	40.62	47	47.9	36.9
<b>Sundargarh</b>	8,73,227	6,25,502	2,47,725	61.28	38.72	41.7	46.2	33.6
<b>Odisha</b>	1,75,41,589	1,51,03,714	24,37,875	61.04	38.96	41.8	43.2	34.8

Source: Census of India

#### Annexure 2.12 :

##### Monthly Per capita Consumer Expenditure (MRP based) over broad categories of goods and services (2011-12)

Sl. No.	Item Category	Rural		Urban	
		Odisha	India	Odisha	India
1	Cereal	166.55	155.13	203.41	175.52
2	Gram	0.57	2.15	0.6	2.92
3	Cereal Substitute	0.01	0.88	0	1.27
4	Pulses and Pulses Products	32.32	39.73	43.57	51.55
5	Milk & Milk Products	27.07	116.13	62.07	186.47
6	Sugar	12.73	23.64	17.23	27.69
7	Salt	2.93	2.46	3.14	2.75
8	Edible Oil	31.56	48.22	41.56	63.62
9	Egg, Fish & Meat	39.32	45.62	63.24	66.94
10	Vegetables	68.64	61.88	88.96	81.4
11	Foods (Fresh)	11.76	19.18	25.6	42.02
12	Foods (Dry)	0.55	5.59	2.81	13.85
13	Spices	22.05	28.78	27.62	36.99
14	Beverages, Refreshment ,etc.	54.24	74.59	138.82	169.9
15	<b>Food : Total ( 1 - 14)</b>	<b>470.3</b>	<b>621.96</b>	<b>718.65</b>	<b>922.91</b>
16	Pan, Tobacco & Intoxicants	19.15	30.1	25.76	33.56
17	Fuel & lights	110.27	118.26	145.27	182.54
18	Clothing & Bedding	67.08	86.78	114.74	144.5
19	Foot wear	7.79	14.7	16.53	27.1
20	Education	22.25	50.69	110.21	193.09
21	Medical ( Institutional)	15.09	30.31	24.76	51.6
22	Medical (Non-institutional)	44.52	64.52	100.04	98.85
23	Entertainment	8.88	14.24	30.73	43.77
24	Minor durable - type goods	3.97	4.33	8	8.42
25	Toilet articles	22.4	30.67	35.44	56.88
26	Other Household consumables	18.24	28.18	33.16	48.9

27	Consume, services excl. Conveyance	28.33	57.57	84.66	155.78
28	Conveyance	23.18	60.92	121.33	180.98
29	Rent	1.55	6.31	134.19	166.93
30	Taxes & Cesses	0.7	3.59	11.02	22.22
31	Durable Goods	41.1	64.03	115.86	138.99
32	<b>Non - Food : Total (16 - 31)</b>	<b>434.49</b>	<b>665.21</b>	<b>1111.7</b>	<b>1554.12</b>
33	<b>Total Expenditure ( 15 + 32)</b>	<b>904.78</b>	<b>1287.17</b>	<b>1830.33</b>	<b>2477.02</b>
34	Cooked Meals recd free in workpl.*	0.82	1.61	2.02	5.79
35	Cooked Meals recd. As assistance *	12.74	16.49	8.53	7.24
36	Clothing & Footwear (2nd hand) **	0.13	0.43	0.03	0.58
37	Books, Journals, etc.(2nd hand @)	0.17	0.26	0.11	0.41
38	Durables (2nd hands)	0.93	1.89	2.6	3.78

\* include in item 14 \*\* included in item 18 and 19 @ included in item 20 \$ included in item 31

Source: NSS, 68<sup>th</sup> Road (2011-12), Central Sample

# 3

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## The Agriculture Sector

*The advocacy on strength and weaknesses of Odisha's agriculture bears strategic implications. The opportunities are being explored. The threats like natural risks and depleting crop area continue to be major concerns. Although the sectoral share of agriculture to GSDP declines to less than one fifth of GSDP of Odisha in recent decade, it still provides employment, income and sustenance to more than 60 percent of working population. The crop production and productivity of the State was at lower ebb due to severe drought in 2015-16. But Odisha achieved transient success in terms of increased net area sown, food security, irrigation, enhancement in farmer's income etc. during the year through policy initiatives of the Government and their effective implementation. State has made remarkable progress in Agriculture sector over the years. The production, productivity and per capita availability of animal husbandry and fishery products were impressive in 2015-16. Forestry sector performed well with the rise in actual forest area, timber production and forest revenue during 2015-16. Odisha is keen to address the issues of F.A.R.M.E.R i.e. **F**inance, **A**llied activities, **R**isk mitigation, **M**arketing access, **E**xtension research and **R**esource use in agriculture sector with high priority.*

Agriculture plays crucial role in the overall development and transformation process of Odisha. It needs to be inclusive and sustainable due to extensive coverage of about 35 percent of geographical area of Odisha as the net crop area and dependence of more than 60 percent of State's total workers population on agriculture for their sustenance. The agriculture sector comprises of crops, horticulture, animal husbandry, fisheries, forestry and other related activities. The share of agriculture sector to GSDP fell from an

imposing 70 percent to less than 20 percent in last 50 years. The sector is the prime mover of the State's economy contributing around 15.5 percent to the GSDP (as per advanced estimates of 2016-17). There is need to improve agricultural production and productivity with land and water management, rain fed agriculture, agricultural markets, better technology, higher public and private investments and effective implementation of ongoing programmes in agriculture and allied sectors.

#### Major initiatives of State to make agriculture and allied sectors more viable and sustainable

- A State level task force on agriculture development and rejuvenation was constituted under the Chairmanship of Chief Secretary, Odisha by Agriculture Department as recommended by NITI Aayog.
- Odisha is among the few states in India that presents a separate budget on agriculture since 2013-14, which is indicative of the priority given to agriculture and allied sector.
- Since 2013-14 Agriculture budget is reflecting an increasing trend. The State's agriculture budget for 2013-14 was Rs. 7162.00 crore whereas the provision for 2015-16 and 2016-17 was Rs. 10903.62 crore and Rs.13181.89 crore respectively.
- The State has formed a separate "Agriculture Cabinet" for farmer centric development.
- State Potato Mission has been formed for making the State self sufficient in production of Potato by the year 2017-18.
- State has formulated "Odisha Fisheries Policy, 2015 and intends to be a pioneer in Aquaculture Development. Bovine Breeding Policy and Poultry Policy are major achievements of the State in 2015-16

[Box 1]

### 3.1 Agriculture

The tropical climate of Odisha is characterized by high temperature, high humidity, medium to high rainfall and mild winters. The normal annual rainfall is 1,451.2 mm of which the South-West monsoon contributes about 80 percent. The State has been divided into four physiographic zones, viz (i) the Northern Plateau, (ii) the Eastern Ghat Zone, (iii) the Central Table Land, and (iv) the Coastal Zone. On the basis of climate, soil, rainfall and topography, the State has been delineated into ten Agro Climatic Zones. The State's Agriculture Sector suffers from recurring natural calamities like cyclones, droughts and

flash floods which substantially affect the area, production and productivity of agriculture. Odisha had 41.04 lakh cultivators and 67.40 lakh agricultural labourers out of 175.42 lakh total workers in 2011 census. The shares of cultivators & agriculture labourers together have been diminished by 3 percentage points from 64.8 percent to 61.82 percent between 2001 & 2011. The falling share was due to less participation of women cultivators which decreased by 19 percentage points from 9 lakh to 7.29 lakh between 2001 & 2011. However, the number of male cultivators has increased by 0.28 lakh during the decade. Among the districts, Balasore has the highest number of cultivators (2.89 lakh),



Mayurbhanj, highest number of agricultural labourers (5.69 lakh) and persons working in household industries (1.14 lakh), while Ganjam district recorded highest in the category of ‘other workers’ (5.95 lakh). The shares of agriculture & AH, forestry & logging & fishery sub sectors to GSDP of broad agriculture sector are highly skewed with 80 percent, 12 percent & 8 percent respectively. However, these 3 sub sectors contribute only 12 percent, 2 percent and 1 percent respectively to State GSDP.

### 3.1.1 Land Use Pattern

Land use in Odisha gives a contrasting picture in current decade. Between 2004-05 & 2011-12, the net sown area (NSA) depleted from 57.39 lakh hectares to 52.92 lakh hectares. But NSA increased from 52.92 lakh hectares to 56.08 lakh hectares between 2011-12 & 2015-16 (Table 3.1). In contrast, the area sown more than once (ASMO) was increasing consistently since 2004-05. The NSA and ASMO status in Odisha are presented in Table 3.1 and figure 3.1 below.

#### Land Utilization Pattern in Odisha

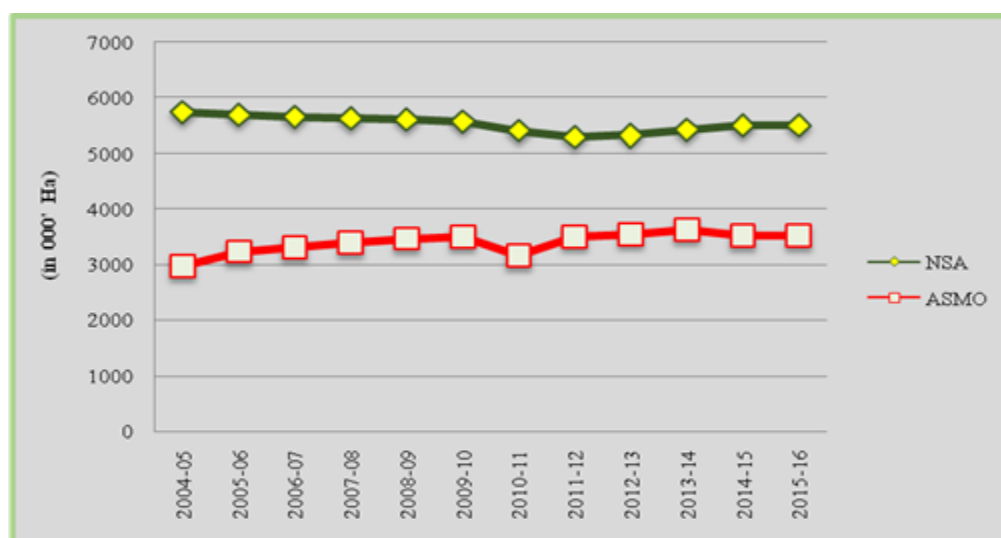
(area in 000 ha)

Year	Geographical Area	Forest Area	Misc. Tree	Permanent pastures	Culturable waste	Land put to non-agril. Use	Barren & unculturable land	Current fallow	Other fallow	Net area sown
2004-05	15571	5813	482	443	392	999	843	426	434	5739
2008-09	15571	5813	342	494	375	1298	840	576	229	5604
2011-12	15571	5813	342	494	375	1298	840	888	229	5292
2012-13	15571	5813	342	494	375	1298	840	849	229	5331
2013-14	15571	5813	342	494	375	1298	840	756	229	5424
2014-15	15571	5813	342	494	375	1298	840	684	229	5496
2015-16	15571	5813	342	494	375	1298	840	572	229	5608

[Table 3.1]

Source: Directorate of Agriculture and Food Production, Odisha

#### Trends of Net Sown Area and Area Sown More than Once in Odisha



[Figure 3.1]

Source: Directorate of Agriculture and Food Production, Odisha

### 3.1.2 Cropping Pattern

The total cultivated area of Odisha is recorded 52.34 lakh hectares in 2015-16. The food grains (cereals & pulses) production covered 92.7 percent area followed by fibres (2.68 percent), oilseeds (2.61 percent) and other crops (2.01 percent). During 2015-16, the food grain area decreased by 6 percent while rice, the principal crop in the State that cover 75 percent of total cultivated area, declined by

39.42 lakh hectares due to drought. The area under oilseeds has declined consistently to 1.37 lakh hectare. But areas under other crops remain unchanged as compared to previous year. The strategies of intensive cultivation as well as increase in cultivated area for augmenting food production need to be addressed with high priority. The cropping pattern of principal crops is reflected in Table 3.2 and trend of area under different category of crops in Odisha in figure 3.2 below:

**Cropping Pattern of Principal Crops**

(area in 000 ha.)

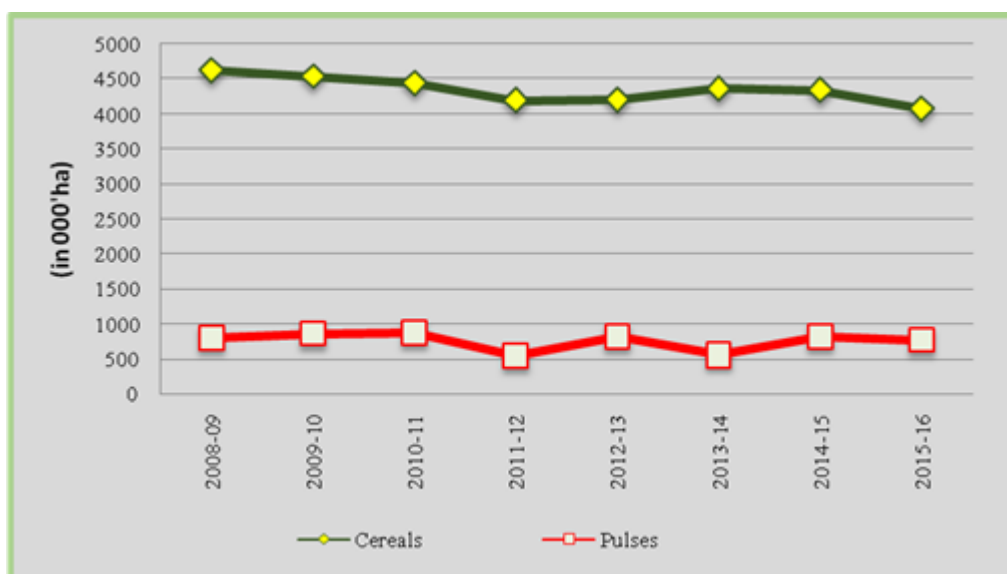
Crops	2014-15		2015-16	
	Area	% to Total	Area	% to Total
<b>(A) Cereals</b>				
<b>Rice</b>	4166	73.92	3942	75.32
<b>Wheat</b>	1	0.02	'S'	S
<b>Maize</b>	92	1.63	55	1.05
<b>Ragi</b>	51	0.90	46	0.88
<b>Others</b>	30	0.53	34	0.65
<b>Total (A) Cereals</b>	4340	77.00	4077	77.90
<b>(B) Pulses</b>				
<b>Gram</b>	47	0.83	39	0.75
<b>Arhar</b>	138	2.45	138	2.63
<b>Other pulses</b>	641	11.37	598	11.42
<b>Total (B) Pulses</b>	826	14.66	775	14.80
<b>Total Food grains (A+B)</b>	5166	91.66	4852	92.70
<b>(C) Oilseeds</b>				
<b>Groundnut</b>	49	0.87	51	0.97
<b>Sesamum</b>	26	0.46	20	0.38
<b>Rape seed and mustard</b>	10	0.18	7	0.13
<b>Caster seeds</b>	11	0.20	11	0.21
<b>Others</b>	116	2.06	48	0.92
<b>Total (C) Oil seeds</b>	212	3.77	137	2.61
<b>(D) Fibres</b>				
<b>Cotton</b>	127	2.25	125	2.39
<b>Jute</b>	1	0.08	1	0.02
<b>Other fibres</b>	17	0.30	14	0.27
<b>Total (D) Fibres</b>	145	2.57	140	2.68

(E) Other crops				
Sugarcane	10	0.18	9	0.17
Tobacco	2	0.04	1	0.02
Potato	8	0.14	6	0.11
Chillies	76	1.35	72	1.38
Ginger	17	0.30	17	0.32
<b>Total (E) other crops</b>	<b>113</b>	<b>2.00</b>	<b>105</b>	<b>2.01</b>
Grand Total (A+B+C+D+E)	5636	100	5234	100

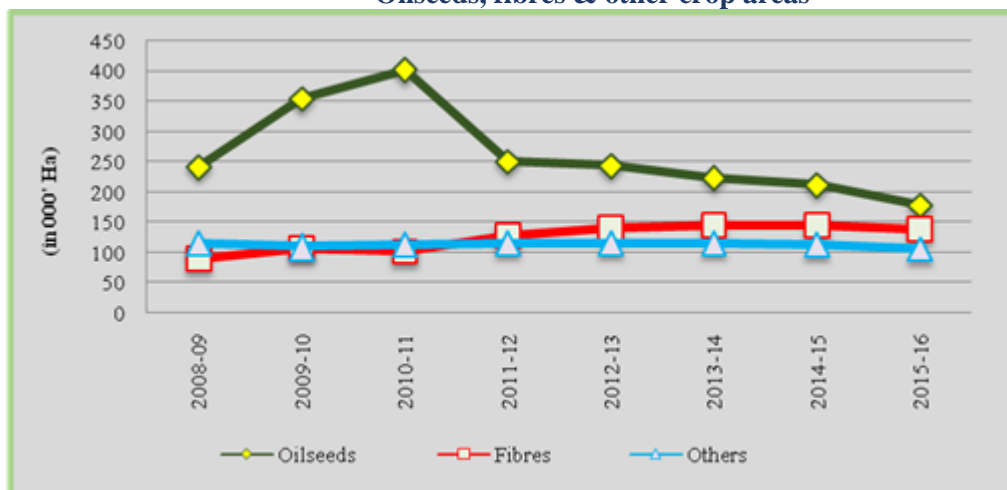
[Table 3.2]

Source: Directorate of Agriculture and Food Production, Odisha, Directorate of E & S, Odisha, Directorate of Horticulture, Odisha

### Trend of Area under Different Category of Crops in Odisha, 2008-09 to 2015-16 Food grains area



### Oilseeds, fibres & other crop areas



[Figure 3.2]

Source: Directorate of Agriculture and Food Production, Odisha, Directorate of E & S, Odisha, Directorate of Horticulture, Odisha

### 3.1.3 Area under HYV Paddy

Cultivation of HYV paddy is promoted in the State. Area under HYV paddy cultivation exhibits an increasing trend. About 92 percent of the total area under paddy is under cultivation of HYV paddy in 2015-16 as compared to 91 percent in 2014-15 and 89

percent in 2013-14. The area under cultivation of HYV paddy in different seasons and districts is given in Table 3.3 and Table 3.4 respectively. Out of the total area under HYV paddy, about 64 percent is un-irrigated area.

#### Area under HYV Paddy

(In 000'ha)

Year	Autumn		Winter		Summer		Total	
	Irrigated	Un-irrigated	Irrigated	Un-irrigated	Irrigated	Un-irrigated	Irrigated	Un-irrigated
2013-14	25.80	462.79	1027.21	1894.96	300.54	-	1353.55	2357.75
2014-15	25.68	479.03	1038.4	1948.61	301.25	-	1365.33	2427.64
2015-16	22.83	462.22	1052.31	1863.57	233.40	-	1308.54	2325.79

[Table 3.3]

Source: Directorate of Economics and Statistics, Odisha

#### District-wise Estimates of Area, Production and Yield Rate of HYV Paddy (2015-16)

Districts	Area (In hect.)	Paddy (in qtls.)		Yield rate (qtl./hect.)	
		Paddy	Rice	Paddy	Rice
Angul	79565	954525	62994	12	7.92
Balangir	190955	2728378	1800729	14.29	9.43
Balasore	205211	5516938	3641177	26.88	17.74
Bargarh	307365	8961435	5914550	29.16	19.24
Bhadrak	135402	5642002	3723722	41.67	27.5
Boudh	58417	863735	570064	14.79	9.76
Cuttack	119178	3677555	2427184	30.86	20.37
Deogarh	47349	714205	471376	15.08	9.96
Dhenkanal	84154	2037029	1344437	24.21	15.98
Gajapati	36508	541790	357581	14.84	9.79
Ganjam	242022	7051599	4654055	29.14	19.23
Jagatsinghpur	75909	3037933	2005036	40.02	26.41
Jajpur	98619	1934363	1276680	19.61	12.95
Jharsuguda	46116	657179	433738	14.25	9.41
Kalahandi	198462	3364773	2220753	16.95	11.19
Kandhamal	17191	262478	173232	15.27	10.08
Kendrapara	90111	2998864	1979249	33.28	21.96
Keonjhar	177979	3089656	2039171	17.36	11.46
Khurda	85818	1979795	1306661	20.37	15.23
Koraput	113361	3516702	2321023	31.02	20.47

<b>Malkangiri</b>	75321	1656068	1093006	21.99	14.57
<b>Mayurbhanj</b>	248715	3989915	2633344	16.14	10.59
<b>Nuapara</b>	90412	1181983	780109	13.07	8.63
<b>Nayagarh</b>	78194	1050077	693052	13.43	8.86
<b>Nawarangpur</b>	125417	2419884	1597123	19.29	12.73
<b>Puri</b>	119326	4077094	2690881	34.17	22.55
<b>Rayagada</b>	48559	890181	587520	18.33	12.1
<b>Sambalpur</b>	147811	2357372	1551904	15.91	10.5
<b>Sonepur</b>	131511	5009401	3306207	38.09	25.14
<b>Sundargarh</b>	159346	3105445	2049592	19.49	12.86
<b>Odisha</b>	3634334	85262354	56273137	23.46	15.48

[Table 3.4]

Source: Directorate of Economics & Statistics, Odisha

### 3.1.4 Area under Horticultural Crops

The agro-climatic conditions of Odisha are favorable for the production of different types of vegetables, fruits and spices. The KBK districts, Gajapati, Kandhamal, Keonjhar and other districts are conducive to intensive

horticultural activity. Among long duration fruits, mango, coconut, cashew nut, sapota, jackfruit, orange and litchi are most favorable in Odisha. The area under different fruit cultivation is given in Table 3.5.

#### Area, Production and Yield Rate of Fruits

(Area in '000 ha, Production in '000 MT, yield rate quintal/ha)

Fruits	2013-14			2014-15			2015-16		
	Area	Production	Yield Rate	Area	Production	Yield Rate	Area	Production	Yield Rate
<b>Mango</b>	197.52	751.02	38.02	197.74	769.93	38.94	199.29	778.69	54.23
<b>Banana</b>	25.06	476.60	190.18	24.76	469.25	189.52	24.47	462.64	201.02
<b>Citrus</b>	27.52	268.01	97.39	27.54	268.37	97.45	27.91	267.96	104.32
<b>Pineapple</b>	0.84	10.38	123.57	0.93	11.60	124.73	0.95	11.62	147.11
<b>Papaya</b>	3.28	72.18	220.06	3.01	69.88	232.16	3.03	70.10	259.64
<b>Coconut*</b>	50.78	3255	6410	50.68	3255	6423	50.91	32.60	64.03
<b>Others</b>	71.63	570.10	79.59	73.31	567.46	77.41	73.31	567.47	86.71

[Table 3.5]

\* in lakh numbers

Source: Directorate of Horticulture, Odisha

### 3.1.5 Area under Potato and sugarcane

These two crops are also important in Odisha from consumption point of view. The area under potato decreased from 8 thousand hectares in 2014-15 to 5.63 thousand hectares in 2015-16 although it shares a mere 0.14 percent of total cultivated area of the State.

Sugarcane is cultivated mainly in Cuttack, Sambalpur, Bolangir, Kalahandi and Puri districts. Area under sugarcane cultivation is equally very low with 0.18 percent share of total cultivated area of the State. During 2015-16, sugarcane was cultivated in 9 thousand hectares as compared to 10 thousand hectares in 2014-15 (Table 3.2).

### 3.1.6 Production

Production and productivity in crop sector play a vital role in agriculture growth for the State.

Food grain is the core product of crop sector in Odisha. Rainfall and its temporal and spatial distribution have direct bearings on the food grain production & productivity in the State. Recurring natural hazards led to varying degree of food grain production since last

decade. Flood, cyclone and drought extensively damaged the food grain production in alternative years of 2011-12, 2013-14 & 2015-16. Consequently, Food grain production declined sharply to 64.18 lakh MT in 2015-16 by 39 percent after a bumper crop of 105.27 lakh MT during 2014-15. Rice production in particular, fell by 40 percent over the rice production of 2014-15. Food grain production in Odisha from 2011-12 to 2015-16 is given in Table 3.6.

#### Production of Major Crops in Odisha

(in 000'MT)

Crop	2011-12	2012-13	2013-14	2014-15	2015-16
Rice	5807	9497	7613	9845	5875
Maize	212	227	264	188	111
Other Cereals	50	9	10	10	13
Total (A) Cereals	6069	9786	7941	10088	6033
Tur	115	128	124	124	123
Other Pulses	132	264	259	279	232
Total (B) Pulses	247	424	419	439	385
Total Food grains(A+B)	6316	10210	8360	10527	6418
Groundnut	79	82	87	62	56
Other oilseeds	87	64	54	52	23
Total (C) Oilseeds	166	264	170	142	97
Cotton	231	336	299	316	298
Other fibers	120	29	31	27	24
Total (D) Fibers	351	434	397	403	366
Sugarcane	885	952	937	723	577
Potato	63	65	71	104	57
Other crop	75	74	74	73	69
Ginger	135	134	134	133	128
Total (E) Other crops	1158	1226	1217	1034	832
Grand Total (A+B+C+D+E)	7991	12134	10144	12106	7713

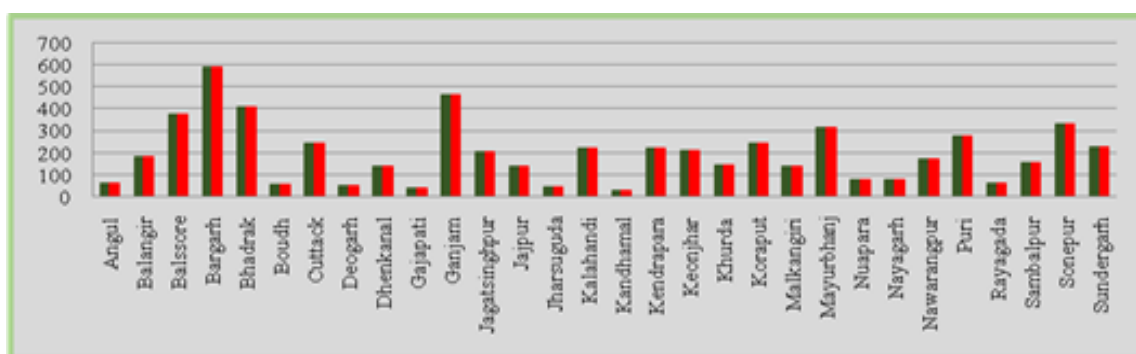
[Table 3.6]

Source: Directorate of Agriculture and Food Production, Odisha, Directorate of Economics & Statistics, Odisha, Directorate of Horticulture, Odisha

To increase production and productivity of Rice, Centrally Sponsored Programme like BGREI, NFSM (Rice) are in operation in the State. Under these schemes interventions like line sowing / line transplanting, use of micronutrients, exposure visit of farmers (outside and inside state), supply of certified seeds based on soil test reports, farm implements, power tillers, tractors at subsidized rates, asset building mainly supply of diesel pump sets etc. are being taken up.

Besides, from 2007-08 such developmental activities for enhancement of rice production and productivity have been taken up under the National Food Security Mission - Rice in 15 low productivity districts in a mission mode. District wise production of Rice is represented in Figure 3.3. The District wise area covered under production of Autumn, Winter and Summer Paddy in 2015-16 is displayed in Table 3.7.

**District wise Production of Rice in 000 MT during the year 2015-16**



[Figure 3.3]

Source: DE&S, Odisha

**District-wise Area and Production of Autumn, Winter and Summer Paddy (2015-16)**

(Area in 000' hectare & Production in 000' MT)

Districts	Autumn			Winter			Summer		
	Area	Production		Area	Production		Area	Production	
		Paddy	Rice		Paddy	Rice		Paddy	Rice
Angul	12	17	12	67	78	51	s	1	s
Balangir	74	73	49	117	196	129	1	5	3
Balasore	s	s	s	192	428	283	29	141	93
Bargarh	62	37	24	172	404	267	73	455	301
Bhadrak	s	s	s	160	610	402	2	8	5
Boudh	5	4	3	55	80	52	1	3	2
Cuttack	2	4	3	118	363	239	1	3	2
Deogarh	14	25	17	33	46	30	s	s	s
Dhenkanal	5	9	6	81	198	131	s	s	s
Gajapati	s	s	s	36	53	35	1	2	1
Ganjam	s	s	s	242	705	465	s	s	s
Jagatsinghpur	1	4	2	79	306	202	s	2	1
Jajpur	16	27	18	93	175	116	1	4	2
Jharsuguda	18	16	11	28	49	32	s	s	s
Kalahandi	41	44	29	142	231	152	16	62	41

<b>Kandhamal</b>	4	3	2	26	39	24	s	1	s
<b>Kendrapara</b>	2	6	4	116	323	213	2	s	4
<b>Keonjhar</b>	25	26	18	157	281	185	1	7	4
<b>Khurda</b>	s	s	s	98	210	138	1	5	4
<b>Koraput</b>	13	20	13	84	246	163	25	98	64
<b>Malkangiri</b>	10	14	9	86	182	120	3	9	7
<b>Mayurbhanj</b>	37	50	33	278	416	274	3	8	6
<b>Nuapada</b>	27	14	9	60	78	52	6	27	18
<b>Nayagarh</b>	1	1	S	90	115	77	s	s	s
<b>Nawarangpur</b>	21	26	17	116	232	154	1	4	2
<b>Puri</b>	s	s	s	105	302	199	27	115	76
<b>Rayagada</b>	5	4	3	45	82	54	2	6	4
<b>Sambalpur</b>	49	43	28	91	148	98	8	44	29
<b>Sonepur</b>	17	14	9	86	316	209	29	171	113
<b>Sundergarh</b>	88	109	71	114	236	156	1	1	1
<b>Odisha</b>	541	590	390	3167	7125	4702	234	1187	783

[Table 3.7]

*N.B: 'S' denotes area less than 500 ha and production less than 500 MT*

*Source: Directorate of Economics & Statistics, Odisha*

Crop production was hard hit by severe drought in Odisha during 2015-16. The production of cereals, pulses, oilseeds, fibers and other crops exhibited downswings during 2015-16 over 2014-15 by 40 percent, 12 percent, 32 percent, 9 percent & 20 percent respectively. Among the major crops, production of maize, groundnuts, other oilseeds, cotton, sugarcane and potato were worst hit. Cotton is a major commercial fibre crop in Odisha KBK districts in specific, in the Kharif season. The Production of Cotton also has decreased from 316 thousand bales in 2014-15 to 298 thousand bales during 2015-16. On the other hand, the production of Jute has increased marginally from 2 thousand bales to 2.62 thousand bales during the same period. Though potato is a very popular vegetable in Odisha, the area and production is negligible as compared to demand. The State has a population of about 4.20 crore and require 9 to 10 lakh MT annually. As against this, the production of potato in the State was only 5.77 lakh MT. In order to meet the demand, State has to depend on other States

like West Bengal, Bihar, and Chhattisgarh. Therefore, farmers are being encouraged to use certified potato seeds and other improved planting materials for potato cultivation. Sugarcane production has declined from 937 TMT in 2013-14 to 577 TMT in 2015-16. In order to bring development in sugarcane cultivation, different training programmes, demonstration programmes and subsidy on the seed cost are being provided to the farmers. Odisha ranked fourth in terms of production of vegetables. The total production of vegetables was 9067.65 TMT in 2015-16 as compared to 9460.58 TMT in 2014-15. The per capita consumption of vegetables in Odisha has been increasing. Odisha contributed to about 4 percent of spice production in India. The production of spices in 2015-16 was 847.97 TMT which is lower than the production of 880.79 TMT in 2014-15. The detail is given in Table 3.8. Odisha also contributed about 3 percent of the total flower production of the country. Rose, gladioli, marigold and tuberose are the main flowers grown in Odisha. Table 3.9 provides data on area and production of



different flowers in Odisha. State Govt. has taken a number of new initiatives to implement various programmes viz special crop specific intervention on floriculture, coconut and banana under horticulture sector

during 2013-14. Protected cultivation under plastic mulching, poly greenhouse and shade net house is now very popular and successful mode of cultivation of horticulture crops.

### Area and Production of Some major Spices in Odisha

(Area in 000 ha, Production in 000 MT)

Spice	2013-14		2014-15		2015-16	
	Area	Production	Area	Production	Area	Production
Onion	35.81	432.05	33.19	395.16	33.45	378.57
Garlic	13.26	48.23	12.9	47.01	12.89	46.97
Coriander	20.22	11.07	19.8	10.87	19.6	10.76
Chilly	76.71	74.37	76.02	73.58	71.69	68.57
Ginger	16.97	133.71	16.92	132.63	16.57	127.78
Turmeric	28.14	221.7	28.02	220.74	27.86	215.32
<b>Total</b>	<b>191.11</b>	<b>912.86</b>	<b>186.85</b>	<b>880.79</b>	<b>182.06</b>	<b>847.97</b>

[Table 3.8]

Source: Directorate of Horticulture, Odisha

### Area and Production of Floricultural Crops

(Area in hectares; production in Qtl.; Gladioli in lakh spikes)

Year	Marigold		Rose		Gladioli		Tuberose	
	Area (ha)	Production (in Qtls.)	Area (ha)	Production (in lakh stems)	Area (ha)	Production (in lakhs spikes)	Area (in ha)	Production (in Qtls.)
2013-14	2680	245810	1870	3580	2370	2350	510	12820
2014-15	2735	245810	1870	3598	2374	2359	511	1282
2015-16	2609	245820	1857	3575	1578	1558	503	1281

[Table 3.9]

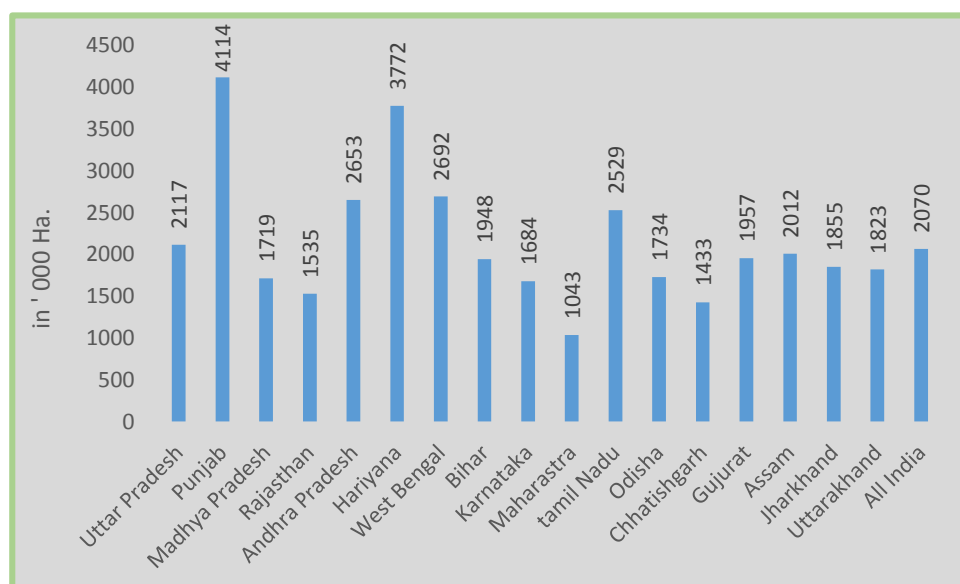
Source: Directorate of Horticulture, Odisha

### 3.1.7 Productivity and Cropping intensity

Yield rate and cropping intensity are two cardinal indicators to assess the production trend of the agriculture crops in the State. The yield rate of food grains in major States of India and Odisha for the year 2014-15(P) are presented in the Figure 3.4. The yield rate of

food grains in Odisha is below the average yield rates in some of the major States and at all India level. There is, therefore, a need for greater efforts through different policy interventions to increase the productivity of major crops.

## Yield Rate level of Food grains in Major States of India, 2014-15



[Figure 3.4]

Source: Agricultural Statistics at a Glance Ministry of Agriculture, 2015, Odisha figure from Directorate of Agril. & Food Production, Odisha

The average yield rates of major crops in Odisha are given in Table 3.10. The average yield rate of rice has increased from 18.21 quintals per hectare in 2013-14 to 23.63 quintals per hectare in 2014-15. But during 2015-16 it declined to 14.91 quintal per hectare. However, the yield rate of Potato and Sugarcane decreased from 123.24 to 101.73 and from 719.51 to 644 quintals per hectare respectively during 2015-16 over previous year. The yield rate of wheat, Ragi, and Groundnut has declined during 2015-16. The yield rate of Gram and Jute increased slightly i.e. from 7.70 to 7.75 and from 16.25 to 21.74 quintals per hectare respectively during 2015-16 over 2014-15. There are mainly three ways to meet the increasing demand for food and other farm products. One way is to expand the net area under cultivation, the second is to

intensify cropping over the existing area and the third is to raise the productivity of production per hectare. Thus, raising the cropping intensity and productivity seem to be more viable strategies to increase production of farm products and farmers' incomes. Cropping intensity implies raising a number of crops from the same field during one agriculture year. Higher cropping intensity means more than one crop from the same area in an agricultural year. In our country, cropping intensity during 2012-13 is the highest in Punjab, followed by West Bengal and Haryana as may be seen from Table 3.11. The cropping intensity in Odisha has, also increased from 157 percent in 2005-06 to 167 percent in 2012-13 and in 2015-16 it is 146 as may be seen from Table 3.12

## Yield Rate of some Principal Crops in Odisha

(quintal/ha)

Crops	2011-12	2012-13	2013-14	2014-15	2015-16
Rice (Total)	14.5	23.61	18.21	23.63	14.91
Autumn rice	7.78	17.32	14.63	17.75	7.19
Winter rice	14.33	24.02	17.39	23.78	14.85
Summer rice	32.13	31.65	34.22	33.42	33.56
Ragi	5.62	7.7	8.09	7.38	6.2
Gram	7.8	7.74	7.68	7.7	7.75
Mung	2.87	3.13	3.52	3.56	2.94
Biri	2.66	3.34	3.11	3.37	3.28
Sugarcane (000' MT/ha)	610.19	655.45	658.91	719.51	644
Mustard	2.12	2.75	2.69	2.44	2.05
Jute	14.77	17.52	18.09	16.25	21.74
Cotton	3.86	4.82	4.1	4.23	4.04
Potato	109.03	122.12	115.98	123.24	101.73
Groundnut	11.89	12.31	14.49	12.68	10.97
Wheat	16.4	19	15.75	16.28	13.47

[Table 3.10]

Source: Directorate of Agriculture and Food Production, Odisha, Directorate of Economics &amp; Statistics, Odisha

## Cropping Intensity across States

State	2010-11	2011-12	2012-13
Punjab	189.6	191.2	189.6
West Bengal	177.3	179.9	185.9
Haryana	184.9	184.7	181.5
Uttar Pradesh	154.4	156.0	155.9
Odisha	158.4	166.3	167.0
Kerala	127.8	130.5	126.5
Bihar	136.8	141.7	144.0
Madhya Pradesh	145.8	147.8	150.7
Maharashtra	133.1	126.6	126.1
Assam	148.0	148.5	149.3
Rajasthan	141.7	135.9	137.0
Andhra Pradesh	129.7	123.3	122.8
Gujarat	118.9	127.1	122.3
Jharkhand	115.1	114.4	117.9
Chhattisgarh	120.8	121.1	121.8
Tamil Nadu	116.1	118.1	113.1
Karnataka	124.1	121.3	120.0
All-India	139.4	138.7	138.9

[Table 3.11]

Source: Agricultural Statistics at a Glance Ministry of Agriculture, 2015, Odisha figure from Directorate of Agril. &amp; Food Production, Odisha

### Cropping Intensity in Odisha

Year	Net area sown (in '000 hect.)	Gross cropped area (in '000 hect.)	Cropping Intensity (%)
2005-06	5,691	8,928	157
2011-12	5,292	8,799	166
2012-13	5331	8879	167
2013-14	5424	9054	167
2014-15	5496	9011	164
2015-16	5608	8180	146

[Table 3.12]

Source: Directorate of Agriculture and Food Production, Odisha

#### 3.1.8 Agricultural Inputs

Improvement in farm yields depends upon a set of factors like technology, utilization of quality seeds, fertilizers, pesticides and irrigation etc. Each of these factors plays an important role in augmenting farm production and productivity.

##### Seeds

Quality seeds are critical input for improving agricultural yield rates. Odisha farmers mostly rely on traditional practice of farm-saved seeds for cultivation that lead to low seed replacement ratio in the State. During 2015-16, about 20,006 (Kharif) hectares were covered under village Programme and 5.06 lakh quintals of various kinds of seeds including 4.61 lakh quintals of paddy were procured in the State and about 0.45 lakh quintals of seeds of non-paddy crops were made available to the farmers, through Odisha State Seed Corporation (OSSC), which is the nodal agency for production, procurement and supply of quality seeds.

##### Soil Testing

Soil testing is an important technical support service needed by farmers. During 2015-16, about 1.75 lakh soil samples have been tested in 27 departmental Soil Testing Laboratories

(STL) and eleven mobile STLs. During 2015-16, 2.48 lakh Soil Health Cards has been supplied to the farmers with necessary recommendations for fertiliser use to upkeep soil health. Besides, it has been programmed to establish 3 static and 6 mobile soil testing laboratories in the state during 2015-16, which enhances the capacity of testing soil samples to 3.65 lakh per annum. Soil testing services are provided to the farmers with a nominal charge of Rs.5/- per sample. "Soil Health and Management" (SHM), a sub scheme under NMSA for up keeping soil health has been implemented during 2014-15 through promoting the use of organic manure and integrated nutrient management. During 2015-16, 3 Mobile, 3 Static, one Referral Soil Testing Laboratory and one Fertiliser Quality Control laboratory have been established.

##### Irrigation

Extensive irrigation drives the crop sector towards optimum production & productivity. In Odisha, out of total cultivated land of 61.80 lakh hectares, about 54.74 lakh hectares (36.11 hectares during Kharif season and 18.03 lakh during Rabi season) irrigation potential were created in 2015-16, as against 51.54 lakh hectares during 2014-15. About 3.20 lakh hectares of new irrigation potential were created during 2015-16. Major & medium

(flow), minor (flow), minor (lift), other sources and Mega lift projects contributed 37.29 percent, 12.97 percent, 24.54, 25.15 and 0.05 percent respectively of total irrigation potential created during the year. Apart from that, out of total 18.66 lakh hectares of cultivated land in the 8 KBK districts of the State, 12.77 lakh hectares were irrigated as on 2014-15. Table- 3.13 shows the status of irrigation potential created and utilized since

2005-06. Figure 3.5 and Table 3.14 depict the State wise percentage share of irrigated area under principal crops. As per Government of India estimates, 29.5 percent of area under principal crops in Odisha was irrigated as compared to 47.6 percent in all India during 2012-13. Punjab has the highest 98.4 percent irrigation under the principal crops during the year.

### Status of Irrigation Potential Created & Utilized in Odisha

(in 000' ha)

Year	Irrigation Potential Created			Potential Utilized			% of utilisation
	Kharif	Rabi	Total	Kharif	Rabi	Total	
2005-06	2731.5	1294.92	4026.42	1922.7	1042.79	2965.49	73.65
2011-12	3089.34	1501.43	4590.77	2078.9	1009.18	3088.08	67.27
2012-13	3102.84	1543.99	4646.83	2186.86	1178.73	3365.59	71.55
2013-14	3312.3	1618.64	4930.95	2254	1267	3521	71.41
2014-15	3457.47	1696.56	5154.03	2327	1134	3461	67.15
2015-16	3670.91	1803.48	5474.39	2241.41	1052.94	3294.35	60.18

[Table 3.13]

Source: Directorate of Agriculture : Agricultural Statistics of Odisha 2015-16

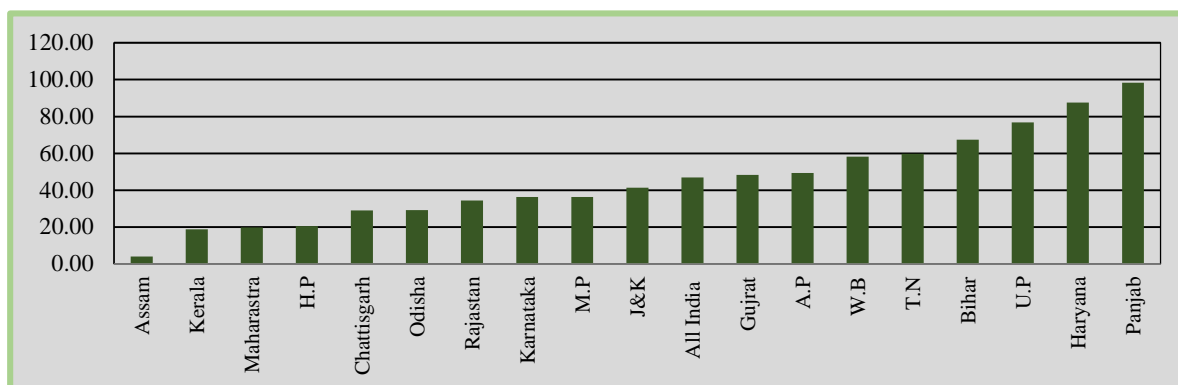
### State-wise Percent Share of Irrigated Area under Principal Crops, 2012-13 (P)

State	Rice	Total Cereals	Total Pulses	Total Food grains	Total Oil Seeds	Sugarcane	Cotton	Tobacco	All Crops
Andhra Pradesh	96.8	80.9	2.2	58.9	25.6	95.1	14	29.2	45.9
Assam	4.9	4.9	-	4.6	0.4	-	-	-	3.8
Bihar	62.4	73.9	16.2	69.5	57.1	76.6	-	97.5	68.5
Chhattisgarh	35.3	34.3	13.1	30.7	4.3	97.1	76.3	84.2	30.3
Gujarat	61.5	52.3	13.5	45.1	31.1	94.5	58.7	100	46.9
Haryana	99.9	93.5	36.3	92.5	80.9	99.7	99.7	100	89
Himachal Pradesh	64.8	20.7	17.1	20.6	18.5	53.9	37.5	-	20.6
Jammu & Kashmir	90.5	39.7	13.5	39	69	40.9	-	-	41.9
Karnataka	72.7	35	7.6	26.4	30.8	100	37.7	11.1	34.1
Kerala	74.5	74.3	-	73.2	20.6	97.4	-	-	17.7
Madhya Pradesh	26	62.2	38.5	54.1	5.5	99.5	53.5	71.6	38.8
Maharashtra	26.1	19.5	9.1	16.3	3.3	100	2.7	16.7	18.5
Odisha	34	32.6	5.8	29.6	17.4	100	-	-	29.5
Punjab	99.6	98.8	88	98.7	88.1	95.9	100	-	98.4
Rajasthan	51.6	38.7	21.1	34.1	60.3	97.8	93	77.1	39.5
Tamilnadu	92.2	71.9	9.3	59.8	64.2	100	25.1	96.5	58.2
Uttar Pradesh	83.1	84.8	23.8	77.5	50.8	94.4	98.2	100	78.2
West Bengal	48.2	50.2	23.4	49.3	82.6	59.3	79.2	97.5	63.1
All India	58.3	58.5	18.6	51.2	28.4	95.1	33.8	54.3	47.6

[Table 3.14]

Source: Agricultural Statistics, at a glance-2014, GOI, Ministry of Agriculture

**State wise Share of Irrigated Area under Principal Crops, 2012-13 (p) (percent)**



**Figure 3.5]**

Source: Agricultural Statistics, at a glance-2014, GOI, Ministry of Agriculture

The source wise irrigation potential created for different years, 2013-14, 2014-15 and 2015-16 is presented in Table 3.15 and Figure 3.6.

**Source wise Irrigation Potential Created in Odisha**

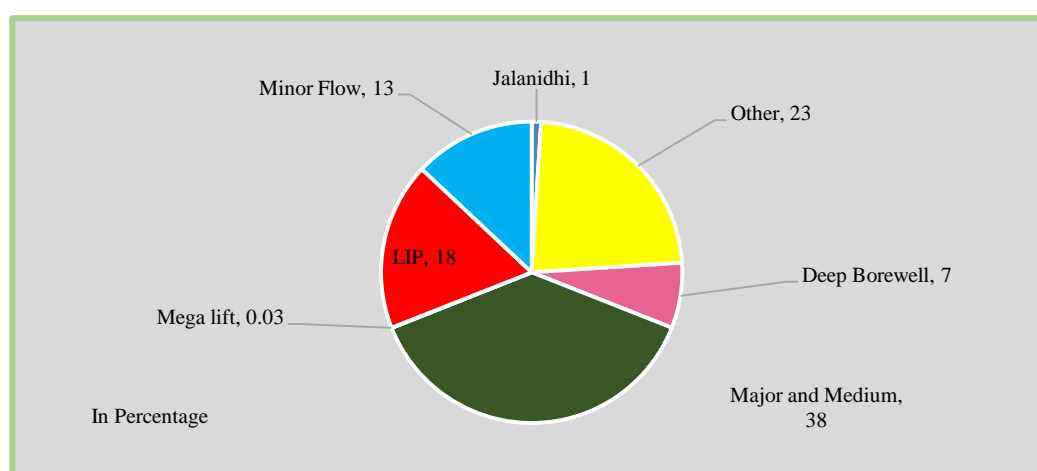
(Area in lakh ha.)

Sl. No.	Sources	2013-14		2014-15		2015-16(Prov.)	
		Kharif	Rabi	Kharif	Rabi	Kharif	Rabi
1	Major & Medium	13.83	6.32	13.91	6.37	14	6.41
2	Minor (Flow)	6.04	0.78	6.15	0.79	6.3	0.8
3	Minor (Lift)	7.08	3.51	7.94	3.9	9.04	4.4
4	Mega lift					0.03	0
5	Other Sources	6.58	5.91	6.86	6.12	7.34	6.42
	Total	33.53	16.52	34.86	17.18	36.71	18.03

[Table 3.15]

Source: Agricultural Statistics of Odisha, 2015-16

**Source wise Irrigation potential utilised during 2015-16**



[Figure 3.6]

Source: Agricultural Statistics of Odisha, 2015-16

(a) Master Plan for irrigation :

There is a Master Plan to provide at least 35 percent of the cultivable area of every block of Odisha in order to rationalize the irrigation development in 198 identified deficit blocks through the ongoing schemes such as BKVY, AIBP, RIDF, IICA and new schemes like check dams, deep bore well, mega lift are under implementation to achieve the target during 12th plan period. By the end of March 2016, out of the 198 deficit blocks (below 35 percent of irrigation), 96 blocks have achieved the target level of 35 percent.

(b) Jalanidhi Programme:

The “Jalanidhi” programme encourages farmers to go for creation of captive irrigation sources through shallow tube wells, bore wells, dug wells and river lift projects by way of administering back ended subsidy against creation of such assets. Tied with NABARD, the State government provides subsidy under this programme. The subsidy is up to 50 percent on shallow tube wells, dug-wells, bore wells and river lift projects limited to Rs.20,000/-, Rs.50,000/-, Rs.50,000/- and Rs.40,000/- respectively. During 2015-16,

6932 private lift irrigation points (PLIPs) which include 1501STWs,4316 deep bore wells, 1115 dug wells have been established under Jalanidhi-I by utilizing subsidy amounting to Rs. 3372.74 lakh and bringing 14000 hectares of additional area under assured irrigation.

(c) Other Programmes:

Irrigation facilities have also been created through AIBP, Repair, Renovation & Restoration of Water bodies (RR&R), RIDF etc. The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been launched during 2015-16 by Ministry of Agriculture and Farmers Welfare, Government of India with an objective to provide protective irrigation to all agricultural farms to “produce per drop more crop” and to achieve much desired rural prosperity.

(d) Major highlights on irrigation projects in 2015-16:

The State government targeted to bring additional 10 lakh hectares of agricultural land under irrigation by 2019. Some major highlights of the ongoing irrigation schemes during 2015-16 are as follows:

- 3 Mega lift irrigation projects namely Laitara and Utkela in Kalahandi district and Gudvella in Bolangir district have been commissioned to provide irrigation to 2750 hectares. Besides 55 mega lift projects with an estimated cost of Rs. 1736.15 crore have been started to provide irrigation to 67,180 hectares within 30 months.
- Extension work of Upper Indrāvati Irrigation project completed.
- 13796 Deep Bore Wells have been installed and handed over to beneficiaries by OLIC.
- 953 Shallow Tube Well and 362 Micro River Lifts have been installed and handed over to beneficiaries by OLIC.
- 1218 Community Lift Points have been installed and handed over to beneficiaries.
- Revival of defunct LI points started in a mission mode, 1936 defunct LIPs repaired and irrigation potential of 40035 hectare created.
- 1681 Check Dams and 45 incomplete MIPs have been completed.
- 630 MIPs completed through GoI funding and State funded RRR scheme.
- Field Channel and Field drain covering 97,047 hectares and 29,311 hectares respectively have been completed.

### Fertiliser and Pesticides

Chemical fertilizers a vital input to crop production. The rate of fertilizer used in the State still remains far behind the national average as may be seen from Table- 3.16. The detail of fertilizer consumption of Odisha is given in Table-3.17. Further the use of fertilizers differs widely across districts. During 2015-16, out of 30 districts, only 10 districts were above the State average of 65.91kg/ hectare. The per hectare consumption of fertilizer in Nabarangapur district is the

highest i.e.137.54kg/ hectare, followed by the Balasore (126.55kg/ hectare), while Kandhamal is the lowest consuming district (13.95 kg/ hectare).Table- 3.18reflects the district wise fertilizer consumption during 2015-16.The pesticide consumption in the State declined to 0.93 TMT during 2015-16 which was 1.28 TMT during 2014-15. Per hectare consumption of pesticide also declined to 115 TMT during 2015-16 compared to 147 in 2014-15 (Table 3.19).

#### Fertilizer Consumption (kg/ha) in Major State

State	2010-11	2011-12	2012-13	2013-14	2014-15
AP	278.41	242.92	199.66	226.72	237.23
Assam	67.59	66.04	66.04	65.41	125.08
Bihar	184.24	180.48	199.66	164.87	178.65
Gujarat	155.6	132.37	102.50	119.52	132.79
Haryana	224.85	220.07	208.08	179.48	221.44
Karnataka	181.43	193.68	126.98	136.06	176.15
Kerala	112.9	113.20	104.12	121.03	40.55
MP	88.36	84.03	83.02	84.43	78.17
Maharashtra	133.65	137.90	112.83	127.07	125.60
Odisha	62.85	62.25	58.74	57.11	58.91
Punjab	243.56	242.64	249.49	216.73	227.46
TN	227.01	214.76	160.75	153.76	163.67
UP	169.91	164.97	180.21	148.86	150.45
WB	164.93	172.91	166.83	131.17	150.91
Rajasthan	60.64	55.33	54.35	49.69	54.51
All India	146.32	142.33	130.79	125.39	128.08

[Table 3.16]

Source: Agricultural Statistics, At a Glance-2014, GOI, Ministry of Agriculture, Odisha Figure from Directorate of Agriculture & Food Production, Government Odisha

#### Fertilizer Consumption in Odisha

(In thousand MT)

Year	Nitrogen (N)	Phosphorous (P)	Potassium (K)	Total	Kg./ha.
2011-12	323.4	135.48	55.8	514.68	62.3
2012-13	315.04	124.19	50.97	490.2	58.7
2013-14	312.99	117.7	56.45	487.14	57.1
2014-15	314.07	126.22	59.24	499.53	58.9
2015-16	332.24	131.51	53.74	517.49	65.9

[Table 3.17]

Source: Directorate of Agriculture and Food Production, Odisha



## District-wise Consumption of Fertilizers, 2015-16 (P)

District	Nitrogen (N)	Phosphorous(P)	Potassium(K)	Total	Consumption(kg/ha)
Angul	4692	2681	804	8177	29.86
Balangir	12835	4673	2363	19871	47.35
Balasore	22171	9496	5410	37077	126.55
Bargarh	33719	14940	5421	54080	126.18
Bhadrak	13646	7878	3463	24987	122.89
Boudh	4394	1576	445	6415	50.67
Cuttack	14626	2935	2079	19640	76.53
Deogarh	2987	1483	369	4839	50.28
Dhenkanal	4568	1838	744	7150	32.3
Gajapati	3665	1657	343	5665	45.51
Ganjam	29998	6623	2534	39155	72.34
Jagatsinghpur	6564	3224	1477	11265	65.51
Jajpur	9421	4445	2399	16265	70.08
Jharsuguda	3931	2213	814	6958	86.53
Kalahandi	20438	8513	3341	32292	58.37
Kandhamal	1011	756	276	2043	13.95
Kendrapara	5235	2584	578	8397	34.44
Keonjhar	9298	5811	1621	16730	45.39
Khurda	6744	1436	870	9050	52.42
Koraput	11142	4689	2538	18369	54.75
Malkangiri	4299	1927	467	6693	36.35
Mayurbhanj	15089	6762	2291	24142	57.74
Nuapada	7062	3549	692	11303	45.61
Nayagarh	3971	1030	771	5772	30.03
Nawarangpur	26196	7300	2706	36202	137.54
Puri	10149	3805	2308	16262	74.81
Rayagada	8418	3235	864	12517	57.75
Sambalpur	19596	7216	3186	29998	114.61
Sonepur	7065	3232	1031	11328	55.23
Sundargarh	9311	4002	1534	14847	41.79
Odisha	332241	131509	53739	517489	65.91

[Table 3.18]

Source: Directorate of Agriculture and food production, Odisha

## Pesticide Consumption in Odisha

Year	Total consumption (000' MT)	Consumption per ha ( Gms)
2011-12	1.16	148.00
2012-13	1.21	158.00
2013-14	1.44	169.00
2014-15	1.28	147.00
2015-16	0.93	115.00

[Table 3.19]

Source: Directorate of Agriculture and Food Production, Odisha

### Implements and Mechanisation

Farm mechanization has great significance for enabling farmers to take up timely and quality agricultural operations, reducing costs of production and improving productivity. Massive farm mechanisation programme has been taken up under State Plan Scheme “Popularisation of Agriculture Implements, equipments and diesel pump sets, RKVY, NFSM and Sub Mission on Agriculture Mechanisation schemes to popularise modern farm equipment and machineries. The Odisha Agro Industries Corporation Limited (OAIC) is functioning in the State since 1974. It is engaged in marketing of various Agricultural

inputs including agricultural machineries, equipment, implements through its network. Besides, the Corporation also executes Shallow Tube Wells, Bore wells and River Lift Irrigation Projects for the farming community. It also provides other inputs such as fertilizers, pesticides and cattle/poultry feed to the farmers. During 2015-16, the Corporation has made a turnover of Rs. 527.15 crore against annual target of Rs.608.66 crore. The machineries, equipments supplied under farm mechanisation are presented in Table 3.20 which exhibits a tremendous rise in demand for improved farm mechanisation and equipment.

#### Machineries supplied under Farm Mechanisation

(Supplied in Nos)

Year	Tractor	Power tillers	Combined Harvester	Rotavator
2008-09	1500	5280	49	38
2009-10	2325	7615	72	36
2010-11	4750	12742	123	311
2011-12	9231	11257	78	96
2012-13	11085	12503	103	469
2013-14	11891	13032	399	4553
2014-15	10325	14388	264	4631
2015-16	11688	9166	407	5003

[Table 3.20]

Source: Directorate of Agriculture and Food Production, Odisha

The farm power consumption touched 1.60 KWH/hectare by the end of 2015-16. The year wise position explained under Table 3.21 and Figure 3.7.

#### Farm Power inputs in agriculture

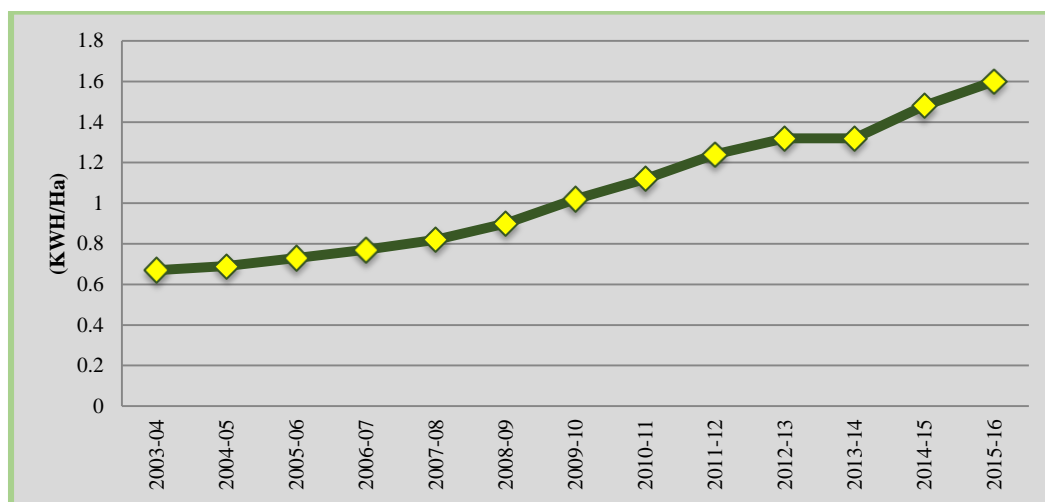
(Unit: KWH/hect.)

2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
0.67	0.69	0.73	0.77	0.82	0.90	1.02	1.12	1.24	1.32	1.32	1.48	1.60

[Table 3.21]

Source: Directorate of Agriculture and Food Production, Odisha

### Farm Power Inputs in Odisha



[Figure 3.7]

Source: Directorate of Agriculture and Food Production, Odisha

### Disbursement of Crop Loan

(Rs. in crore)

Year	Crop loan disbursed
2010-11	5449
2011-12	8520
2012-13	8457
2013-14	12582
2014-15	12866
2015-16	15869

[Table 3.22]

Source: Directorate of Agriculture and Food Production, Odisha

### Farm Credit

Since modern agriculture is capital intensive, farmer's access to farm credit is crucial in enhancing crop productivity, especially in Odisha's context. It encourages farmers to undertake new investments and adopt new technologies for more productivity. The crop

loans and Agricultural credit advanced by banks exhibits an increasing trend (Table 3.22 and Table 3.23). Some aspects of credit have also been dealt with in Chapter 5 of this publication. The share of agricultural credit in total advance is around 29 percent against the national average of 18 percent.

### Agricultural Credit Advanced

(Rs. in crore)

Year	Commercial Banks*	Co-operative Banks	Total
2011-12	3768.65	4751.02	8519.67
2012-13	5032.16	5421.99	10454.15
2013-14	4957.33	5230.55	10187.88
2014-15	6732.72	6804.75	13537.47
2015-16	9806.66	9469.14	19275.80

[Table 3.23]

Note: \*Commercial Banks include RRBs

Source: State Level Bankers Committee, Odisha

### 3.1.9 Crop Insurance

Rashtriya Krishi Bima Yojana (RKBY) was introduced in the State from Rabi 1999-2000. Both Loanees & Non-loanee farmers have been covered under this scheme. It is compulsory for loanee farmers and optional for non-loanee

farmers. The crops covered under this scheme are Paddy, Maize, Groundnut, Jute, Niger, Arhar, Cotton during Kharif season & Paddy, Groundnut, Mustard, Potato during Rabi season. The year wise achievements made under crop insurance are given in Table 3.24 below.

**Year wise Achievements made under Crop Insurance**

Year	Type	Farmers covered (in lakh Nos)	Farmers paid compensation (in lakh Nos)	Sum insured	Premium collected Rs. in crores	Compensation paid Rs. in crores
2007-08	Kharif	8.41	0.66	1118	28.24	24.02
	Rabi	1.32	0.01	200	3.81	0.17
2008-09	Kharif	6.11	0.56	841	21.77	30.35
	Rabi	1.62	0.44	252	4.98	8.37
2009-10	Kharif	10.69	0.99	1575	39.7	46.9
	Rabi	1.35	0.21	259	4.65	6.5
2010-11	Kharif	11.83	2.27	1994.79	59.28	138.76
	Rabi	0.75	0.11	163.27	5.76	4.76
2011-12	Kharif	15.56	6.74	3072	94.42	673.94
	Rabi	0.83	1.4	241	5.38	1.4
2012-13	Kharif	14.78	1.15	3219.48	85.86	63.8
	Rabi	0.98	0.17	323.88	7.47	8.43
2013-14	Kharif	13.78	4.21	3539.81	91.69	458.36
	Rabi	0.1	0		0.92	0.14
2014-15	Kharif	18.01	1.76	5228.95	133.73	255.35
	Rabi	1.17	0.11	480.38	9.75	7.97

[Table 3.24]

Source: Directorate of Agriculture and Food Production, Odisha

### 3.1.10 Land Holding

Land holding pattern is a prime determinant of the production structure and socio-economic conditions in a society. Operational land holdings are classified as marginal, small, semi-medium, medium and large land holdings depending upon the area controlled in a single land holding. Distribution of operational holdings indicates that the total number of operational holdings has been increasing over the years but the area under holdings has been declining except for

Scheduled Castes. As per 2000-01 agriculture census, the area of operational holdings of all social groups was 50.81 lakh hectares, which has declined to 50.19 lakh hectares in 2005-06 census and finally to 48.52 lakh hectares in 2010-11 census. The corresponding figures for scheduled caste stood at 5.14 lakh hectares, 5.26 lakh hectares, and 5.65 lakh hectares respectively for 2000-01, 2005-06 & 2010-11, while for scheduled tribes the figures were 16.31, 17.48 and 16.15 lakh hectares respectively (Table 3.25 and 3.26).

## District-wise Estimates of Area of Operational Holdings for all Social Groups in Odisha, 2010-11

(Area in ha)

District	All Groups		Scheduled Caste		Scheduled Tribes	
	Nos.	Area	Nos.	Area	Nos.	Area
Angul	151450	146607	20014	15036	24496	21461
Balasore	285759	221581	61328	41492	2887	20144
Bargarh	193336	259515	28660	23938	44146	52801
Baudh	190915	170349	49189	37758	1752	1130
Bhadrak	249605	277289	40567	35430	58154	67592
Bolangir	75922	80266	14958	10834	9963	13375
Cuttack	164983	142648	36884	26532	3663	3102
Deogarh	43051	43737	5283	3862	16888	20167
Dhenkanal	111572	81980	17273	10209	16567	12303
Gajapati	69343	56414	1905	1129	51255	40879
Ganjam	295389	273919	41036	31150	14511	15984
Jagatsinghpur	122869	94900	31523	21385	340	261
Jajpur	125411	147883	34399	34092	8865	11093
Jharsuguda	63146	63338	9480	6049	27021	21503
Kalahandi	184310	255684	31576	33344	61182	93791
Kendrapara	91512	92801	14672	9532	91707	71184
Keonjhar	162140	126550	27479	21591	1599	919
Khurda	256477	253167	23740	17742	123950	116651
Koraput	119392	109999	14803	11501	6471	6572
Malkangiri	166734	270982	18004	22641	106458	164497
Mayurbhanj	96535	122450	23314	21189	66781	93964
Nawarangpur	389981	357627	22294	14401	246790	229630
Nayagarh	146456	187942	21674	24933	86666	113451
Nuapada	112064	92188	9624	6116	10542	12986
Kandhamal	98750	120502	12569	12382	37097	46993
Puri	163660	136786	30933	22166	67	27
Rayagada	129614	157890	12496	10894	95843	112584
Sambalpur	101129	149328	11633	11769	51090	57436
Sonepur	95721	91701	19632	11837	10678	9356
Sundargarh	210240	265993	15536	14530	152078	182855
<b>State Total</b>	<b>4667466</b>	<b>4852014</b>	<b>702478</b>	<b>565464</b>	<b>1425507</b>	<b>1614693</b>

[Table 3.25]

Source: Agricultural Census, 2010-11

### Size Class-wise & Group-wise Distribution of the Number of Operational Holdings for all Social Groups in Odisha

year		Size Class (Area in Ha)					
		Marginal	Small	Semi Medium	Medium	Large	All Classes
All Social Group							
2000-01	No.	2294520	1113599	500531	145110	13375	4067135
	Area	1155145	1543709	1344201	817591	220387	5081033
2005-06	No.	2597164	1156162	472129	119529	11408	4356392
	Area	1341668	1587713	1250650	658208	181237	5019476
2010-11	No.	3368296	918647	311261	63688	5574	4667466
	Area	1921842	1497752	918947	381272	132201	4852014
Schedules Caste							
2000-01	No.	393318	124640	42526	8183	329	568996
	Area	181294	170626	112469	44748	4768	513905
2005-06	No.	453408	133304	38482	5654	318	631166
	Area	214727	178387	99273	29659	4470	526515
2010-11	No.	564873	107869	26356	3230	150	702478
	Area	296118	171927	76401	18702	2316	565464
Scheduled Tribes							
2000-01	No.	638669	370169	170573	47276	3247	1229934
	Area	346508	516790	457778	264796	44913	1630785
2005-06	No.	771153	416540	175356	71399	2956	1407404
	Area	432988	580545	468877	227056	38785	1748251
2010-11	No.	949504	335732	118248	20867	1156	1425507
	Area	584636	543852	344892	122170	19143	1614693

[Table 3.26]

Source: Agriculture Census, 2010-11

#### 3.1.11 Policies and Development Schemes of 2015-16

Several policies and programmes are put in place to improve the performance of agriculture sector in the State. Some of them are discussed below.

##### (a) Odisha State Agriculture Policy, 2013

The State Agriculture Policy -2013 has been formulated to make agriculture growth sustainable and inclusive. It aims to bring a

shift from the present level of subsistence agriculture to a sustainable commercial agriculture. The policy is structured to promote & enhance productivity, seed replacement, quality planting materials, Integrated Nutrient Management (INM), Integrated Pest Management (IPM), water management, farm mechanization and technology transfer, crop substitution, horticultural crops, poultry, dairy and fisheries to augment the income of the farmers. It

adheres to approaches of modern farming, organic farming, water use efficiency through people's participation, increased long-term agricultural investment (on farm as well as off farm) both by private sector, public sector and private and public partnership (PPP), particularly for post-harvest management, marketing, agro processing and value addition, etc. It aims to promote contract as well as compact farming, increased access to credit and market linkage for small and marginal farmers with competitive advantages. The policy is bent upon to implement integrated watershed development programmes for better natural resources management and create appropriate institution/ facilities to undertake regulatory, enforcement and quality assurance activities matching to the emergent needs. It redefines the role and responsibilities of the agricultural extension machinery by suitably restructuring the field extension set up.

### **State Intervention**

Strategic intervention for increasing production and productivity of various crops several centrally assisted schemes are being implemented in the State. Some of the major schemes and new initiatives taken up in the field of Agriculture during 2015-16 are enumerated below.

#### **(b) National Mission on Oilseeds and Oil Palm (NMOOP)**

Government of Odisha have implemented this mission from the financial year 2014-15 with a funding pattern of 75:25 between Centre and State for increasing the production and productivity of oilseeds and oil palm crops. Under this mission, 3 mini missions are being implemented.

##### **Mini Mission –I on Oilseeds**

Quality oil seeds of groundnut, soya bean, rapeseed, sunflower, linseed mustard, sesame

and Niger are supplied at subsidized rates from the financial year 2014-15 under the scheme. During 2015-16, incentives have been provided to the farmers for production of foundation and certified seeds. 1600 quintals of foundation seeds and 1400 quintals of certified seeds have been procured and 1960 quintals of certified seeds were supplied to the farmers at a subsidy of Rs.23.52 lakh. Besides, subsidy has also been provided to the farmers for popularising micro irrigation systems. Further, 40 Farmers Field School (FFS) on Integrated Pest Management have been conducted with an expenditure of Rs.10.68 lakh and 100 farmers training school and 17 trainers training have been organised on various production technologies of oilseed crops. Also Rs.100.32 lakh has been spent for conducting block demonstrations over 340 hectares on groundnut, 2004 hectares on mustard and 100 hectares on sunflower.

##### **Mini mission- II on Oil Palm**

The main objective of this scheme is to provide subsidies for production of oil Palm seedling, maintenance cost for newly created Oil Palm plantation, micro-irrigation etc. with financial assistance from Government of India and State Govt. in the ratio of 75:25. During 2015-16 an area of 1744 hectares has been taken for Oil Palm Plantation and Rs.8000/- has been provided to each farmers towards seedling cost and Rs.4000/-per hectare for maintenance of old plantation in consecutive 4 years.

##### **Mini Mission –III on Tree Borne oilseeds (TBOS)**

It has been proposed to take up olive plantation in the State under Mission-III of NMOOP. Under the scheme, assistance will be provided to the farmers @Rs.48000/per hectare for taking up 200 numbers of plants

per hectare and @Rs. 3200/per hectare for maintenance of Olive plantation and @ Rs.1000/- per hectare for intercropping during the gestation period.

**(c) National Food Security Mission (NFSM)**

This is a centrally sponsored scheme launched in 2007-08 with the objective of increasing production of rice and pulses through expansion of area and enhancement of productivity in a sustainable manner in the identified districts. As per the revised guideline of the Govt. of India, NFSM has five major components, such as, (1) NFSM- Rice, (2) NFSM-Pulses, (3) NFSM-Coarse cereals, (4) NFSM-Commercial crops and (5) NFSM-Wheat. Except NFSM- wheat all other components were implemented in the State from the financial year 2014-15. During 2015-16, NFSM- Rice has been implemented in 8 selected districts and NFSM pulses in all 30 districts. The component wise achievement details are given below.

**NFSM-Rice**

In order to increase the production and productivity of rice and to popularize the hybrid paddy cultivation among the farmers, demonstrations on hybrid paddy in the farmers' fields in 8 selected districts conducted in 36,500 hectares of the State. Cluster demonstrations were also conducted in 25,000 hectares. Cropping system based demonstration conducted over 8,000 hectares. Besides, during 2015-16, assistance was provided for the use of Micronutrients over 4,232 hectares, Plant Protection Chemicals and bio-grants over 40,658 hectares and weedicides over 6,551 hectare.

**NFSM-Pulses**

NFSM-pulses was implemented in all districts of the State with a total expenditure of

Rs.1263.07 lakh (As on February'2016). During 2015-16, 11760 quintals of HYV pulse seeds were popularized, cluster demonstration on intercropping and improved varieties was taken up in 26,000 hectares.

**NFSM-Coarse Cereals**

Maize and Ragi are the two major coarse cereals of the State. NFSM- Coarse cereals has been implemented from 2014-15 and the scheme Coarse cereals and ISOPOM (Maize) have been subsumed under the scheme. The scheme has been implemented in 6 districts of the State during 2014-15. During 2015-16, demonstration of Improved Packages of Maize and Ragi conducted in 7,000 hectares.

**NFSM-Commercial Crops**

During 2015-16, Rs161.94 lakh has been spent for taking up various interventions for sustainable production of the commercial crops like Cotton, Jute, and Mesta.

**(d) National Mission for Sustainable Agriculture (NMSA)**

Under NMSA, components, namely Soil Health Management (SHM), On Farm Water Management (OFWM), Rain fed Area Development (RAD) , Climate Change and Sustainable Agriculture Monitoring, Modelling, Networking (CCSAMMN), Soil Health card and Paramparagat Krishi Vikas Yojana have been implemented which are outlined below.

**Soil Health Management (SHM)**

The objectives to maintain soil health through promoting use of soil test based recommendations, organic manures, integrated nutrient management besides conducting front line demonstrations and capacity building for sustainable crop production. During 2015-16, Rs.393.76 lakh has been received for



establishment of 3 mobile and 3 Static Soil Testing Laboratories.

#### **Soil Health Card**

This component of NMSA has been implemented during 2015-16 with objective of providing soil testing results to the farmers in the form of “Soil Health Card”. During 2015-16, 131488 Soil health Card have been provided with an expenditure of Rs.249.58 lakh. 26 farmers training have been conducted on effective use of Soil Health Card.

#### **Rain-Fed Area Development (RAD)**

This component introduced appropriate farming system by integrating multiple components of agriculture like crop, horticulture, livestock, fishery, forestry with agro based income generating activities and value addition practices. 25 clusters of 15 districts of the state are included in the first year of implementation of RAD with the fund allocation of Rs.13.00 crore during 2015-16.

#### **(e) Paramparagat Krishi Vikash Yojana (PKVY)**

This component of NMSA implemented in the State during 2015-16 with an objective of promoting organic farming through adoption of low cost eco-friendly technologies. Rs.642.43 lakh has been received against the provision of Rs.856.57 lakh and steps have been taken to adopt 120 clusters of 50 acres each under the programme.

#### **(f) National Mission on Agriculture Extension and Technology (NMAET)**

This is a centrally sponsored scheme with 4 submissions, namely- i) Submission on Agriculture Mechanism (SMAM), ii) Submission on Agriculture Extension (SMAE), iii) Submission on Seed and Planting Materials (SMSP) and iv) Submission on Plant Protection and Plant Quarantine (SMPP). A

sum of Rs.9641.23 lakh has been released for implementation of NMAET during 2015-16. Some components are explained below.

#### **Submission on Agriculture Mechanisation (SMAM)**

The schemes like “Macro Management of Agriculture” through which subsidy assistance for farm mechanization was provided, “Promotion of Agriculture Mechanisation through training Testing and Demonstration,” and “Post-Harvest Management and Technology” have been subsumed under this submission, SMAM. During 2015-16, subsidy worth Rs.1069.65 lakh has been extended to the farmers for purchase of different farm machineries and equipment. Assistance has also been provided for establishment of Farm Machinery Banks for custom hiring.

#### **Submission on Agriculture Extension (SMAE)**

The centrally sponsored scheme “Support to State Extension for Extension Reforms”, the Central Plan Scheme, “Capacity Building to Increase Competitiveness in Agriculture” and “AGRISNET project/ National e-Governance Plan for Agriculture” have been subsumed under this submission SMAE. During 2015-16 a sum of Rs.4190.55 lakh has been released for implementation of extension activities of the State including activities of ATMA.

#### **(g) Rashtriya Krishi Vikas Yojana (RKVY)**

This scheme was introduced by Government of India in 2007-08 with the objective of achieving 4 percent growth in agriculture & allied sectors. Generally, the State which maintained a higher ratio of expenditure in agriculture and allied sectors becomes eligible for assistance under the scheme. From the financial year 2015-16, Govt. of India categorised it under Centrally Sponsored

Scheme with funding pattern of 60:40 between Centre and State. RKVY aims at achieving and sustaining desired annual growth by ensuring holistic development of Agriculture & Allied Sectors. This scheme promotes development of Agriculture, Horticulture and other allied sectors like Animal Husbandry, Dairy development, fisheries, Agriculture Research & Education, Minor/Lift irrigation and Watershed development. During 2015-16, a sum of Rs.492.08 crore has been released by Government of India against an allocation of Rs.554.54 crore. State level Sanctioning Committee Sanctioned 123 nos. of new projects during 2015-16.

**(h) Biju Krushaka Kalyan Yojana (BKKY)**

To provide health insurance to the farmers, Biju Krushaka Kalyan Yojana (BKKY) has been introduced by State Govt. in 2013-14. It is an earnest effort to provide them financial support through health and accident insurance as a part of commitment of a welfare State. About 60 lakh farmers' families, irrespective of APL or BPL are eligible for this yojana, which promises insurance cover of Rs 1.0 lakh annually to five members of a farmer's family. During 2015-16, about 57.66 lakh farmer families were enrolled under the scheme. Health insurance claims worth Rs.16.61crore have been claimed and 33,322 farmer families have received benefit.

**(i) Odisha Watershed Development Mission**

The State Government has given priority to the development of rain fed areas in the State during 12<sup>th</sup> Five Year Plan. OWDM has also been designated as the state level nodal agency for implementation of the flagship programme, Integrated Watershed Management Programme (IWMP).The State

aims to treat one million hectares area in cluster mode under the watershed development programme during the 12th plan. During 2014-15, 1.88 lakh hectares has been treated with different land and water-management interventions, 14,546 hectares of cultivable wastelands have been brought under cultivation due to implementation of watershed activities.

**(j) Integrated Watershed Management Programme (IWMP)**

This programme was launched by the Department of Land Resources, GoI during the year 2009. The project covers 26 districts of Odisha except Puri, Jagatsinghpur, Kendrapada and Bhadrak. The main objectives of IWMP are to restore ecological balance by harnessing, conserving and developing degraded natural resources. IWMP projects are taken up in clusters covering an area of 5000-6000 hectares for realizing visible impact. Currently six batches of projects in 310 clusters have been sanctioned covering an area of Rs.17.02 lakh hectares, with a project outlay of Rs.2191.52 crore. Out of 310 projects, 243 are under implementation in 18 IAP districts covering an area of 13.28 lakh hectares with a project outlay of Rs.1746.38 crore. Promotion of Community Based Organisations (CBO) is an important activity under IWMP. CBOs such as Self Help Groups (SHGS), Watershed Committees (WC) and User Groups (UGs) are organized and strengthened for planning and implementation of different watershed projects. An amount of Rs.19.09 lakh has been spent during 2015-16(up to February, 2016). There exists a watershed committee in each micro-watershed covering an area of 500-1000 hectares. SHGs are engaged in micro-enterprise activities. During 2015-16, 917SHGs have been formed with 11,004 members.

The Watershed Committee (WC) also constitutes User Groups in the Watershed area, those who are responsible for operation and maintenance of all the physical assets created under the project. During 2015-16, 2310UGs have been formed with 4,863 members and Rs.536.02 lakh have been mobilized as WDF contribution from watershed activities. During 2015-16, 19,300 farmers, SHGs, UGs and CIG members have been trained on different aspects of self employment and watershed management.

**(k) Sustainable Harnessing of Ground water in water Deficit Areas (BKVY)**

This programme was introduced in 26 districts of the state in 2010-11 and popularly known as Biju Krushak Vikash Yojana (BKVY) which has been implemented through Odisha Lift Irrigation Corporation under W.R. Department. Under this scheme, deep bore wells are being constructed in clusters of farmers' fields which cover 5 hectares during Kharif and 2 hectares during Rabi Season. During 2015-16, 13,798 bore wells have been energized.

**(l) Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)**

The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been launched during 2015-16 by Ministry of Agriculture and Farmers Welfare, Government of India with an objective of access to some means of protective irrigation to all agricultural farms to "produce per drop more crop" to achieve much desired rural prosperity PMKSY has 4 major components:- 1) Accelerated Irrigation Benefit Programme 2) Har Khet Ko Pani 3) Per Drop More Crop 4) Watershed Development. Odisha Watershed Development Mission (OWDM) has been designated as State Nodal Agency for PMKSY

at State. Preparation of District Irrigation Plan (DIP) is mandatory for implementation of PMKSY. During 2015-16, DIPs of all districts have been prepared.

**(m) National Horticultural Mission (NHM)**

This is a centrally sponsored scheme launched in 2005-06 and activities have been extended to all the 30 districts of Odisha for development of 14 major horticultural crops. The main objective of the programme is to promote horticultural crops including fruits, flowers, vegetables and other crops. The funding pattern of the scheme between Government of India and Government of Odisha is 85:15 from 2007-08 before that it was 100 percent Central assisted scheme. But from 2015-16 the funding pattern is 60:40 between Government of India and State. The scheme also supports post harvesting practices and marketing of horticultural crops to improve incomes of farmers. The crops selected under the scheme include mango, citrus, litchi, banana, in fruits, cashew in plantation crops, ginger and turmeric in spices, betel vines and floriculture. The main thrust area of NHM during 2015-16 are i) Fruit Orchard Development, ii) Development of Floriculture, iii) Human Resource Development, iv) Vegetable Cultivation, v) Protected Cultivation, vi) Establishment of Marketing Infrastructure for Horticultural produce, vii) Integrated Post Harvest Management, viii) Horticulture Mechanization, ix) Cashew Plantation, xi) Integrated Coconut Farming.

**(n) Establishment of Regional Coconut Nursery**

This scheme has been implemented under Mission for Integrated Development of Horticulture (MIDH) from 2014-15 with an

objective of raising of coconut seedlings in Government Farms and Nurseries and sold to farmers at subsidized rates. During 2015-16, 10,000 coconut seedlings have been produced under this scheme.

#### **(o) Special Crop Specific Scheme Floriculture**

The scheme envisages achieving self-sufficiency in floriculture as well as generation of revenue for the farmers. Assistance has been provided to the floriculture farmers to take up rose, tuberose, marigold & jasmine for cultivation in their fields. During 2015-16, an amount of Rs. 34.28 lakh has been utilized for covering marigold in 20 hectares, tube rose in 13.5 hectares by end of February 2016.

#### **Coconut**

The objective of the scheme is to increase area and production of coconut as the existing provision made under the Coconut Development Board (CDB) but production is not sufficient to meet the demand of the State. During, 2015-16, a sum of Rs. 370.54 lakh has been utilized to cover 1667hectares under area expansion for coconut.

#### **Banana**

The Scheme envisages to make the State self-sufficient in banana production and to generate more profit for the farmers as the areas covered under existing schemes are not sufficient to cater to the demand of the State. It has been programmed to take up banana tissue culture plantation under the scheme to give impetus to banana cultivation in the State. During 2015-16, an amount of Rs.141.47lakh has been utilized for covering 160 hectares under the scheme.

#### **Betel Vine**

As the farmers have to incur a huge expenditure during its initial period of its establishment, it is proposed to provide assistance to the tune of 50 percent of the 1st year establishment cost under the new scheme “Special Crop Specific Scheme- betel vine” under State plan with the objective to promote betel vine cultivation in the State. During 2015-16, 250Borojs have been established and Rs. 82.00 lakh have been utilized by the end of February 2016.

#### **Development of Potato, Spices & Vegetables**

In order to encourage farmers to take up cultivation of potato and other vegetables, quality seed materials were sold to the farmers at subsidized rate. During 2015-16, 5672.12quintals of seed potatoes, 110.42quintals of onion seeds and vegetable seeds at subsidised rate to 5 lakh farmers in moisture stressed area with the total expenditure of Rs.63.57 lakh by the end of February, 2016.

#### **3.1.12 Institutional support**

##### **(a) Odisha University of Agriculture and Technology (OUAT)**

OUAT, the second agricultural university in India, aims to develop technical manpower through quality based education, research and extension activities on agriculture and allied sciences in order to promote agriculture growth, productivity & economic condition of rural people. OUAT offers PG courses in 54 disciplines & Ph.D courses in 33 disciplines besides under graduate courses. The present intake capacity of OUAT is 1886. OUAT secured 3rd position in National Level ICAR-JRF Examination among 73 Agricultural Universities. OUAT’s significant achievements during 2015-16 included the following activities:

The university enrolled 5045 students with 48 percent girl students. It undertook 51 national research projects and 67 ad hoc research projects of ICAR for all 10 agro climate zones of Odisha through its 8 regional research & technology transfer stations (RRTTS), 4 substations (RTTSS), 7 commodity research stations and 13 adaptive research stations. It collaborates with international rice research institutes of Philippines, Moscow, USA, Japan & Bangladesh. Out of 147 promising high yielding varieties of different crops developed by OUAT so far, 7 are released during 2015-16 with national and international acclamation. It released new 3 rice varieties ASHUTOSH, GOVIND and HASANTA, which are widely accepted by farming communities. The University has produced 1872 quintal breeder seeds, 3253 quintal foundation seeds and 78.10 quintal of Nucleus seeds of different crops and vegetables, 67064 numbers of qualitative planting material of mango, cashew, medicinal plants, forest plants, vegetable seedlings were produced during 2015-16 which were distributed to Government Organizations, NGOs and interested farmers of the State as well as neighbouring States. OUAT developed integrated nutrient management & pest management modules, 2 suitable strains & growing techniques for different crops, multicoloured broiler poultry, value addition of tropical fruits like bale etc. Agricultural Technology Information Centre (ATIC) provides single door delivery of technologies, services, and information and inputs immensely benefiting farmers.

**(b) ICAR- Central Rice Research Institute (ICAR-CRRI)**

ICAR-CRRI conducts basic, applied and adaptive research on crop improvement and resource management towards increasing and

stabilizing rice productivity in different rice ecosystems, along with a special emphasis on rain-fed ecosystems and related biotic stresses. During 2015-16, one high yielding variety of paddy has been developed. The yield rate of this variety is 4.5 to 5.5 MT per hectare with 110 to 165 days duration.

**(c) Agricultural Investment Corporation and Ltd (APICOL)**

APICOL a promotional organisation is promoting commercial Agri-enterprises, including agro-based and food processing industries in the State. During 2015-16, 161 Commercial Agri- Enterprises and 633 Agro Services Centres have been established with the capital investment subsidy of Rs.39.45 crore by the end of February, 2016. APICOL is acting as the virtual office of Agricultural and Processed Food Products Export Development Authority (APEDA) under Ministry of Commerce and Industries, Govt. of India. The goal of APEDA is to maximize foreign exchange earnings and provide better income to the farmers through exports. APICOL also acts as a State agency for Small Farmers Agri-Business Consortium (SFAC), a society under the Ministry of Agriculture, Government of India, to provide venture capital for qualifying projects of horticulture, floriculture, medicinal plants, etc. under agriculture and allied sectors. Under the scheme of infrastructure development, APEDA has sanctioned Rs.528.35 lakh for setting up of an Integrated Pack House of fresh fruits & vegetables at Titilagarh in Bolangir district which is at the completion stage.

**(d) Odisha Agro Industries Corporation (OAIC)**

OAIC aims at marketing various agricultural inputs and farm machineries through a wide network of offices at district and sub-district levels. The Corporation also executes Tube Wells, Bore wells, and Lift Irrigation Points for farming communities. It provides inputs such as fertilizer, pesticides, cattle and poultry feeds to farmers. During 2015-16, the Corporation had a turnover of Rs. 527.15 crore against the target of Rs.608.66 Crore. So far, it has sold 339 tractors, 187 power tillers, 190 power reapers, 28179 diesel pump sets, 260 storage Bins, and 55,421 sprayers. Besides, it has also energized 148 bore wells, 2339 DLPs (Direct Lift Project). The Corporation also sold 102.31 thousand MT fertilizers and 5999 MT of gypsum and 25895 MT of seeds. The Corporation has also produced and sold 908 MT of cattle feed during 2015-16.

**(e) Odisha State Cashew Development Corporation (OSCDC)**

During 1993, OSCDC Ltd. was declared as Nodal Agency to develop land, raise cashew plantation and other suitable species, render technical guidance and assistance to cashew growers and make available good planting materials. The corporation has established 19 numbers of cashew clonal nurseries and set up one medicinal plants nursery in Khurda district with assistance from National Mission on Medicinal Plant (NMMP) and started raising medicinal plants from 2013-14. During 2015-16, 21 lakh grafts of high yielding varieties cashew were produced and 17.52 lakh sold. Now, OSCDC has 604 cashew plantations over 28052 hectares covering 20 districts.

**(f) Odisha State Seeds Corporation (OSSC)**

OSSC has been designated as the Nodal Agency for production, procurement and supply of quality seeds to the farmers certified by Odisha State Seeds and Organic Products certification Agency (OSSOPCA) under State seeds Act. OSSC has been implementing the “Seed Village Programme” as ‘Mo Bihana Yojana’ and providing incentives for production of quality paddy and non-paddy seeds. During Kharif 2015, an area of 20006 hectare were covered under seed village programme and expected to produce 6 lakh quintal quality certified seeds. Besides, OSSC has also procuring certified seeds from OUAT, MOU Farms, National Seeds Corporation and other agencies to meet farmers need. During 2015-16, 505923 quintals of seeds of different crops were supplied by OSSC.

**3.1.13 New Initiatives**

The Government have taken new initiatives such as promotion of gender friendly tolls for farm women in Odisha, special programme for millets in Tribal areas, support to integrated farming system in tribal districts, System Development (revamp of the existing system on Training and Visit (T&V) model), grant to state procurement agencies, establishment of floriculture market, setting up of a company for marketing of fruits and vegetables, certification of agriculture programme, development of agriculture in collaboration with international agencies, introduction of solar pump sets & dug wells with diesel / solar pump sets, support to farmers producers’ organisation, agri-start up programme, corpus funds for fertilizers etc.

**3.2 Animal Husbandry**

Animal Husbandry Sector plays a vital role in promoting the standard of rural livestock

holding for generation of additional income for farmers' families. The dependency syndrome on livestock sector of majority of rural people for their sustained employment and livelihoods is quite visible. Even about 85 percent of livestock are owned by the landless, marginal and small landholding families. Apart from providing a subsidiary income, rearing of livestock is a source of nutrition in the form of milk, egg and meat. As per Basic Animal Husbandry Statistics, 2014, Odisha ranks 11th among Indian States in egg production, 13th in meat production and 16th in terms of milk production (2014-15). Next to

Agriculture, Animal Husbandry is the most important economic activity in rural areas. Though Odisha accommodates nearly five percent of the total bovine stock of India, its total contribution to NSDP is significant.

The livestock Census, 2012 for all States is presented in Table 3.27 and in Figure 3.7. Uttar Pradesh had the highest livestock population in 2012. Odisha contributed about 4.05 percent population of livestock in the country compared to 13.42 percent in Uttar Pradesh, 11.27 percent in Rajasthan and 10.96 percent in Andhra Pradesh.

### Major State-wise Total Number of Livestock and Poultry-2012 Census

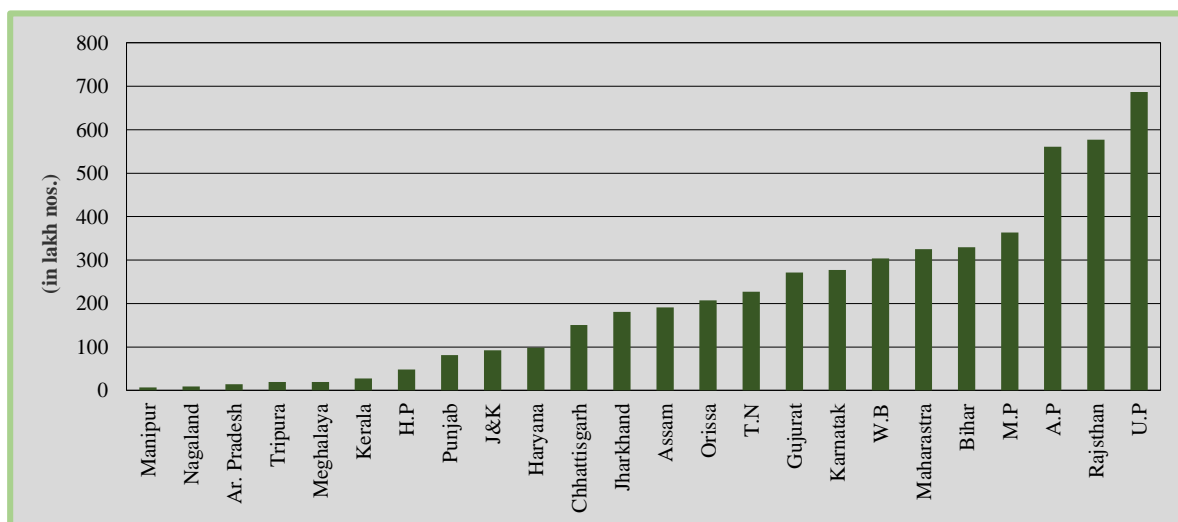
(in 000' number)

States/ UTs	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses & Ponies	Mules	Donkey	Camel	Yaks	Mithun	Total Live stock	Total Poultry
Andhra Pradesh	9596	10623	26396	9071	394	5	1	13	0	0	0	56099	161334
Assam	10308	435	518	6167	1636	14	0	1	1	0	0	19082	27216
Bihar	12232	7567	232	12154	650	49	25	21	9	0	0	32939	12748
Chhattisgarh	9815	1391	168	3225	439	3	1	1	1	0	0	15044	23102
Gujarat	9984	10386	1708	4959	4	18	0	37	30	0	0	27128	15006
Jharkhand	8730	1186	583	6581	962	6	4	0	0	0	0	18053	13560
Karnataka	9516	3471	9584	4796	305	13	1	16	0	0	0	27702	53442
Madhya Pradesh	19602	8188	309	8014	175	19	7	15	3	0	0	36333	11905
Maharashtra	15484	5594	2580	8435	326	37	2	29	0	0	0	32489	77795
Odisha	11621	726	1581	6513	280	3	6	1	1	0	0	20733	19891
Punjab	2428	5160	129	327	32	33	5	3	1	0	0	8117	16794
Rajasthan	13324	12976	9080	21666	238	38	3	81	326	0	0	57732	8024
Tamilnadu	8814	780	4787	8143	184	5	0	9	0	0	0	22723	117349
Uttar Pradesh	19557	3062	1354	15586	1334	152	43	57	8	0	0	68715	18668
Uttaranchal	2006	988	369	1367	20	16	27	2	0	0	0	4795	4642
West Bengal	16514	597	1076	11506	648	4	0	1	0	1	0	30348	52838
All India	190904	108702	65069	1E+05	10294	625	196	319	400	77	298	512057	729209

[Table 3.27]

Source: 18<sup>th</sup> Livestock Census, Department of Animal Husbandry, M/O Agriculture

## State-wise Livestock Population, 2012 Census (in lakh)



[Figure 3.8]

Source: 18th Livestock Census, Department of Animal Husbandry, M/O Agriculture

According to the livestock census 2012, the livestock population of Odisha was 207.33 lakh. Out of this, 59.56 percent were cattle and buffaloes, 38.39 percent were small ruminants, and 1.35 percent was pigs. Besides, the State has also 198.91 lakh poultry as compared to 7292 lakh at all India level. Out of total poultry in the State, 70 percent were local backyard breeds. Livestock census 2012 also

reveals that livestock population in the State declined by 10 percent over the previous livestock census, 2007, while it decreased by 3.33 percent at all India level. Table- 3.28 and 3.29 present the livestock population in Odisha under different census. Figure 3.9 depicts the total livestock population in Odisha since Livestock Census, 1982.

## Census wise Livestock Population in Odisha (lakh number)

Census year	Cattle		Buffaloes	Goats	Sheep	Pigs	Others	Total Live stock
	Total	Cross breed						
2001	140.03	8.71	13.88	58.8	17.79	6.02	NA	236.52
2003	142.81	10.43	14.39	59.74	17.59	5.69	NA	240.22
2007	123.10	17.03	11.9	71.27	18.18	6.12	NA	230.57
2012	116.21	13.06	7.26	65.13	15.81	2.80	0.11	207.33

[Table 3.28]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha



### Cattle and Buffalo Population in Odisha as Per 2012 Animal Census

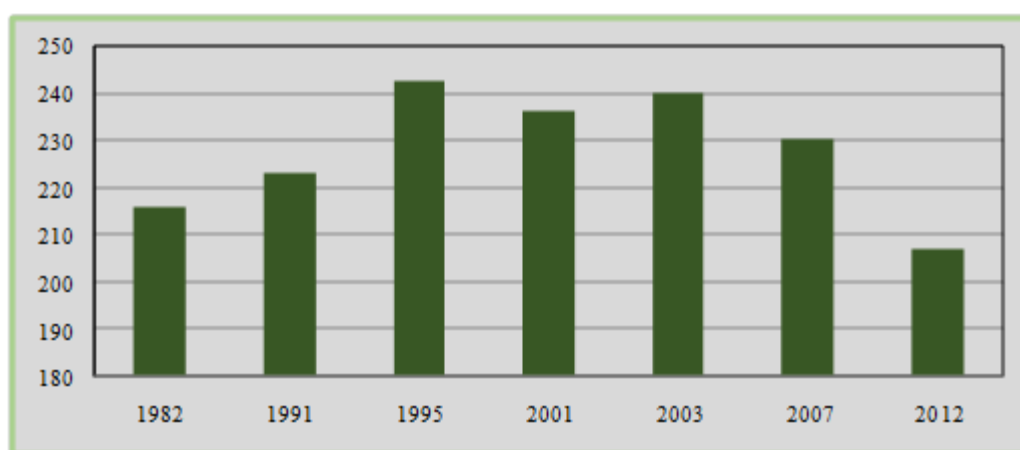
( lakh number)

Category	All Total		Female		Milch		Breedable	
	Total	C.B.	Total	C.B.	Total	C.B.	Total	C.B.
Cattle	116.21	13.06	57.99	9.86	30.83	5.29	33.98	5.71
Buffaloes	7.26	0	3.91	0	2.24	0	2.44	0
<b>Total</b>	<b>123.47</b>	<b>13.06</b>	<b>61.90</b>	<b>9.86</b>	<b>33.07</b>	<b>5.29</b>	<b>36.42</b>	<b>5.71</b>

[Table No. 3.29]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

### Total Livestock Population in Odisha



[Figure 3.9]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

#### 3.2.1 Production and availability of Milk, Eggs and Meat in Odisha

Though India ranks first in the world in milk production, contribution of Odisha is less than two percent of the total production of milk (Table.3.30). Egg production is about three percent of all India production. Figure 3.10 A & 3.11 B show the time series data on per capita consumption of milk and production of meat in Odisha from 2005-06 to 2015-16 respectively. Production of milk increased from 1,283 TMT in 2004-05 to 1,938 TMT in

2015-16. The production of eggs has increased from 1216 million in 2004-05 to 1927 million in 2015-16. Details are given in Table 3.31. It is observed that though the per capita availability of milk has increased from 94 gms/day in 2004-05 to 118 gms/day in 2015-16, it is still far behind the all India per capita availability of milk. Per Capita Availability of Milk and Meat in Odisha from 2005-06 to 2015-16 is reflected in Figure 3.11(A, B). The targets and achievements of production of milk and eggs by districts in 2014-15 and 2015-16 are portrayed in Table 3.32.

## State-wise Milk Production (in 000 MT)

State	2010-11	2011-12	2012-13	2013-14	2014-15
Andhra Pradesh	11203	12088	12762	13007	9656
Assam	790	796	800	815	829
Bihar	6517	6643	6845	7197	7775
Gujarat	9321	9817	10315	11112	11691
Haryana	6267	6661	7040	7442	7901
Himachal Pradesh	1102	1120	1139	1151	1172
J & K	1609	1614	1631	1615	1951
Karnataka	5114	5447	5718	5997	6121
Kerala	2645	2716	2791	2655	2711
Madhya Pradesh	7514	8149	8838	9599	10779
Maharashtra	8044	8469	8734	9089	4542
Odisha	1671	1718	1724	1861	1903
Punjab	9423	9551	9714	10011	10351
Rajasthan	13234	13512	13946	14573	16934
Tamil Nadu	6831	6968	7005	7049	7132
Uttar Pradesh	21031	22556	23330	24193	25198
West Bengal	4471	4672	4859	4906	4961
Chhattisgarh	1029	1119	1164	1209	1232
Uttaranchal	1383	1417	1478	1550	1565
Jharkhand	1555	1745	1679	1700	1734
All India	121844	127899	132431	137686	146314

[Table 3.30]

Source: Department of Animal Husbandry, Dairying and Fishing, Ministry of Agriculture, GoI

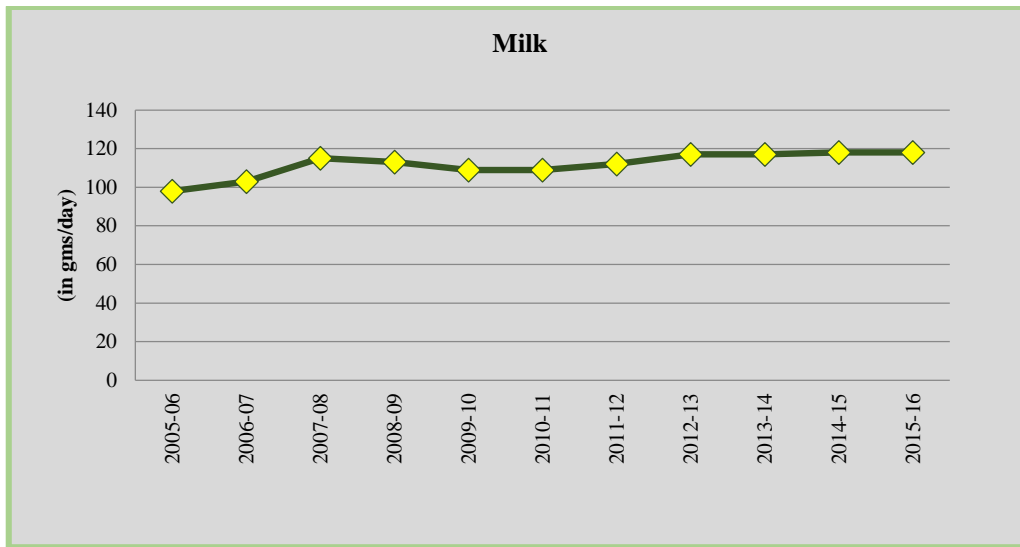
## Year-wise Production and Per Capita Availability of Milk, Meat &amp; Eggs in Odisha

Year	Production of milk (thousand MT)	Per capita Availability of Milk (gms/day)	Production of meat (thousand MT)	Per capita Availability of meat (Kg./annum)	Production of eggs (in millions)	Per capita Availability of eggs (nos/annum)
2004-05	1282.76	94	50.53	1.36	1215.96	33
2005-06	1342.3	98	52.04	1.39	1278.71	34
2006-07	1424.64	103	55.01	1.45	1424.64	38
2007-08	1620.44	115	58.82	1.53	1549.48	39
2008-09	1598.05	113	115.00	2.933	1993.26	51
2009-10	1651.33	109	128.00	3.17	2319.32	57
2010-11	1670.00	109	138.00	3.29	2357.10	56
2011-12	1718.00	11	138.00	3.29	2300.70	55
2012-13	1784.00	113	141.83	3.29	2322.90	54
2013-14	1861.00	117	153.82	3.52	2360.90	54
2014-15	1903.00	118	162.50	3.66	1924.50	43
2015-16	1938.00	118	167.00	3.71	1927.30	43

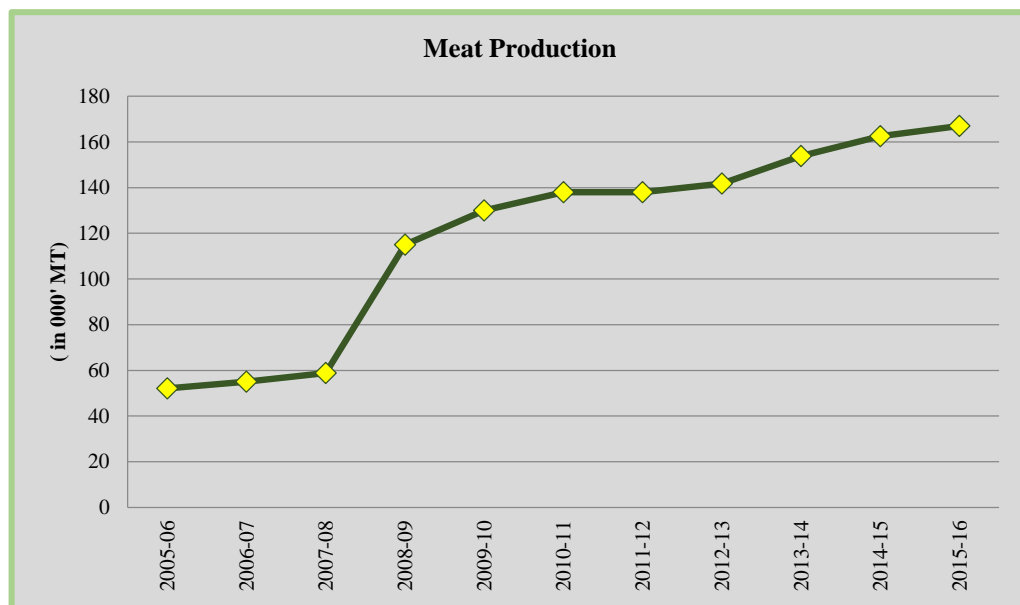
[Table 3.31]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

Per Capita Availability of Milk and Meat in Odisha, 2005-06 to 2015-16



[Figure 3.10 (A)]



[Figure 3.11 (B)]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

Milk and Egg Production in Districts, 2014-15 and 2015-16

Districts	2014-15				2015-16		
	Target of Production		Achievement		Target of Production	Achievement	
	Milk (000' MT)	Egg (Mil. Nos.)	Milk (000' MT)	Egg (Mil. Nos.)	Milk (000' MT)	Egg (Mil. Nos.)	Milk (000' MT)
Balasore	147.51	93.13	161.52	94.25	169.6	93.13	164.52
Bhadrak	71.21	55.88	42.39	24.44	44.51	55.88	43.18
Balangir	76.3	186.28	81.76	206.39	85.85	186.28	83.27

Sonepur	79.35	17.64	37.44	17.72	39.31	17.64	38.13
Cuttack	167.85	60.79	198.38	48.41	208.29	60.79	202.05
Jajpur	101.73	68.63	104.01	21.42	109.21	68.63	105.94
Kendrapara	62.05	46.08	68.05	47.32	71.45	46.08	69.31
Jagatsinghpur	101.73	27.45	111.16	29.54	116.72	27.45	113.22
Dhenkanal	60.02	66.66	69.42	64.42	72.89	66.66	70.71
Angul	49.85	22.55	44.57	20.13	46.8	22.55	45.4
Ganjam	107.83	490.19	117.86	449.43	123.75	490.19	120.04
Gajapati	26.45	31.38	32.53	18.28	34.16	31.38	33.13
Kalahandi	51.88	77.45	55.5	77.54	58.27	77.45	56.53
Nuapada	40.69	14.7	34.75	17.62	36.49	14.7	35.4
Keonjhar	76.3	83.34	460.03	32.44	48.32	83.34	46.88
Koraput	81.38	80.39	49.05	38.68	51.49	80.39	49.96
Rayagada	40.69	41.17	45.56	42.78	47.83	41.17	46.4
Nawarangpur	24.42	38.23	17.47	18.48	18.33	38.23	17.8
Malkangiri	54.93	51.96	33.74	39.2	35.42	51.96	34.36
Mayurbhanj	96.64	194.12	89.93	164.6	94.43	194.12	91.59
Kandhamal	24.42	36.28	18.78	21.27	19.72	36.28	19.12
Boudh	23.4	14.7	22.13	13.59	24.24	14.7	22.54
Puri	118.01	37.26	118.87	35.65	124.8	37.26	121.08
Khordha	67.14	431.38	83.75	194.25	87.93	431.38	85.31
Nayagarh	25.43	24.51	26.95	21.54	28.3	24.51	27.45
Sambalpur	46.8	41.17	32.41	29.28	34.03	41.17	33.01
Deogarh	15.26	12.74	13.49	6.23	14.66	12.74	13.14
Jharsuguda	23.4	13.72	14.41	9.75	15.62	13.72	14.68
Bargarh	86.47	63.72	81.22	50.08	85.29	63.72	82.73
Sundargarh	50.86	76.5	49.86	69.82	52.3	76.5	50.78
<b>TOTAL</b>	2000	2500	1902.98	1924.56	2000	2500	1938.25

[Table 3.32]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

### 3.2.2 Government Initiatives for Livestock Development

The State has devised several strategies for development of animal resources and dairy programmes with the following objectives: (i) producing livestock vaccines under GMP compatible conditions to meet local requirements, (ii) monitoring implementation

of the Livestock Disease Control programme at district level (iii) providing livestock disease diagnostic services at DDL through information and communication technologies, (iv) sharing knowledge and technology appropriate for the development of animal husbandry and dairy, (v) establishing Livestock Aid Centres at Gram Panchayat

level and (vi) improving cattle breeds and undertaking fodder development programmes.

### 3.2.3 Network of Veterinary Hospital and Dispensaries

Animal health care is being provided through a network of 541 veterinary hospitals/dispensaries and 2,939 Livestock Aid Centres (LAC) which is reflected in Table- 3.33. The Disease Control Programmes are monitored at

Deputy Director level. Two Biological Products Institutes function at Bhubaneswar and Berhampur to prepare adequate quantity of different vaccines needed for the Disease Control Programme in the State. Animal health care facilities like vaccination, deworming, castration and number of infertility camps organized in Odisha during 2015-16 is presented under Table 3.34.

**District-wise Number of Veterinary Institutions and Personnel in Odisha, 2015-16**

District	Veterinary Hospitals/ Dispensaries	Live Stock Aid Centres	LACs doing A.I.	A.I Centres (A.H. Deptt.)	A.I Centres (Others)	No. of Veterinary Doctors in position	No. of L.I.in position
Angul	16	81	81	153	20	20	56
Balasore	21	124	124	213	00	26	112
Bargarh	19	119	119	183	190	20	48
Bhadrak	13	98	98	167	124	16	72
Balangir	21	118	118	167	00	33	101
Boudh	7	28	28	36	15	8	34
Cuttack	26	172	172	272	00	38	140
Deogarh	4	20	20	30	00	3	12
Dhenkanal	18	86	86	155	00	22	80
Gajapati	11	54	54	65	32	14	43
Ganjam	38	246	246	324	00	45	187
Jagatsinghpur	13	92	92	156	434	16	60
Jajpur	18	102	102	212	0	24	85
Jharsuguda	9	35	35	50	0	11	28
Kalahandi	21	129	129	184	0	27	146
Kandhamal	20	87	87	75	0	24	102
Kendrapara	14	88	88	155	0	19	60
Keonjhar	22	113	113	169	91	27	112
Khurda	20	98	98	172	0	28	46
Koraput	25	129	129	131	0	32	104
Malkangiri	13	50	50	41	103	12	58
Mayurbhanj	42	167	167	277	0	46	187
Nawarangpur	17	72	72	101	0	25	58
Nayagarh	16	72	72	101	0	21	78
Nuapada	8	47	47	58	0	13	51

District	Veterinary Hospitals/ Dispensaries	Live Stock Aid Centres	LACs doing A.I.	A.I Centres (A.H. Deptt.)	A.I Centres (Others)	No. of Veterinary Doctors in position	No. of L.I.in position
Puri	15	145	145	220	00	24	79
Rayagada	16	101	101	116	00	22	102
Sambalpur	18	113	113	149	00	20	59
Sonepur	10	38	38	68	79	14	47
Sundargarh	30	115	115	186	0	32	120
ODISHA	541	2939	2939	4398	1300	682	2467

[Table 3.33]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

#### Animal Health Care

Item	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Treatment of animals (in lakh nos.)	51.29	55.48	55.69	53.03	60.99	63.24	76.57	92.5	107.83
Vaccine production (in lakh doses)	184.65	193.78	210.11	235.27	192.63	166.34	209.31	175.84	232.49
Vaccination done (in lakh nos.)	202.35	242.70	276.34	302.14	280.93	240.29	237.70	246.13	293.63
Infertility camp organized	3229	3508	3118	3172	2934	3012	2405	3190	3185
De-worming of animals (in lakh nos.)	3.07	7.28	8.84	7.24	15.10	14.18	14.35	14.9	24.54
Animal castrated (in lakh nos.)	4.53	4.41	4.92	5.20	4.90	5.24	5.56	5.48	5.79

[Table 3.34]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

### 3.2.4 Live Stock Health Care Services

Optimum health care management of the livestock resources are being taken up through the network of veterinary hospital dispensaries and live-stock-aid Centres. There are institutions like Animal Disease Research Institute (ADRI) at Phulnakhara, Cuttack and one State Veterinary Laboratory (SVL) at Chiplima, Samabalpur. In addition, there are 26 Disease Diagnostic Laboratory (DDL) and 3 Central Investigation Laboratory (CIL) local at district/regional head quarters for treatment and control of animal disease.

Mobile veterinary units are working in all blocks of the State for providing medical services to the farmers at their doorstep. During 2015-16, 156 MVU (Mobile Veterinary Units) have been in operation covering 61,459 villages, 15,61,308 cases treated and 14,04,099 vaccination done. National Animal Disease Reporting System (NADRS) is a computerized network connecting each block, district and state headquarters to the Central Disease Reporting Unit. The network connectivity at present is feasible to 307 nodes.

### 3.2.5 Livestock Breeding Farms

There are 8 ECB/LBD farms in the State producing high pedigree bull calves to improve breeding and productivity of local animals through natural services/artificial insemination. The farms also produce and supply fodder and root slips to local farmers and propagate fodder cultivation programmes. In 2015-16, there were 491 animals comprising 112 milk producing cows, 83 dry cows, 118 heifers, 75 bull calves and 101 sucking calves maintained in these farms. About 3.11 lakh litres of milk was produced in these farms in 2015-16 against 2.94 lakh litres of milk produced in 2014-15.

### 3.2.6 Bovine Breeding Policy

The State Bovine Breeding Policy has been approved by the Government on 29th September, 2015 for genetic up-gradation of cattle and buffaloes found in Odisha. It also helps enhancing the milk production which encourages farmers to accept dairying as their livelihood.

### 3.2.7 Artificial Insemination

Artificial insemination is an important component of dairy development and is being rendered through a network of 2985 departmental AI centres in the State. Apart from the departmental institutions, 1408 OMFED AI Centres, 684 JK trust AI centres, 100BAIF centres and 1412 Gomitras are functioning in the State. Artificial insemination in the State is showing an increasing trend and special attention has been given for production of quality frozen semen for insemination purpose. This Frozen Semen Bank (FSB), located at Cuttack is the only semen producing station in the State, supplying semen to all the 30 districts. This Frozen Semen Bank has produced 9.24 lakh Semen Straws during the year 2015-16 (up to Feb-2016) to be used for artificial insemination and also awarded with ISO 9001: 2008 and Grade "A" Certificate for quality semen production by Government of India. Further, 14.28 lakh artificial inseminations were performed against the target of 16.41 lakh and 5.16 lakh progenies were born. Table 3.35 shows the status of artificial insemination programme in the State since 2005-06.

**Status of Artificial Insemination Programme in Odisha (in lakh number)**

Year	Target for AI	Achievement	Progeny Born
2005-06	7.77	6.548	2.77
2006-07	9.84	8.13	3.14
2007-08	12.00	8.94	3.66
2008-09	13.20	10.23	4.00
2009-10	14.73	11.66	4.29
2010-11	14.93	12.38	4.92
2011-12	15.78	12.23	5.19
2012-13	16.74	12.96	4.84
2013-14	17.50	14.35	5.29
2014-15	18.02	11.73	3.94
2015-16 (Feb-16)	16.41	14.28	5.16

[Table 3.35]

Source: Fisheries & Animal Resources Development Department, Odisha

### 3.2.8 Poultry/ Duck Development

Poultry has been the fastest growing sector in providing employment and income to a significant number of people in the state. The backyard poultry also plays a vital role in supporting livelihoods of million poor people particularly the tribal and the scheduled caste. Poultry Development Policy has been implemented in the State from 2015-16.

The achievement of poultry development programme during 2015-16 is given below:

- There are 8 State Poultry farms and 2 Duck breeding farms functioning in the State under Central assistance, having present parent stock capacity of 3,706 low- input technology poultry birds and 1653 ducks. From these farms, 3.18 lakh numbers of day old chicks and 0.32 lakh of day old ducklings were supplied to interested farmers at reasonable price.
- In order to boost backyard poultry in the State, assistance was provided to 1,113 BPL beneficiaries in selected 11 districts with centrally sponsored plan scheme under NLM.
- About 72 commercial layer farms having 45 lakh birds producing 37.00 lakh eggs per day.
- 5,172 broiler farms with commercial broiler bird strength of 86.00 lakh are in operation. Broiler placements are to the extent of 20 to 25 lakh day-old –chicks per week and 18 to 23 lakh adult broiler birds are entering to the market for meat purpose.

- 48 number of district poultry hatcheries were established under the financial assistance of SGSY infrastructure fund to produce day old chicks to meet the demand of backward poultry rearing scheme in the State. Out of 48 hatcheries, 31 are functioning successfully and produced 4.5 lakh Day Old Chicks (DOC).
- Under State Agricultural Policy, Capital Investment Subsidy given for setting up 93 broiler farms and 3 layer farms in different districts of Odisha during 2015-16.

### 3.2.9 Fodder Development

Fodder is highly essential for animals which not only provide sufficient nutrient to the animals but also reduce the production cost significantly. The demand for green fodder and dry fodder in the State was about 312.04 lakh MT and 138.91 lakh MT respectively during 2015-16, against their availability is 161.22 MT and 106.21 MT respectively. There are 8 departmental LBD Fodder farms covering an area of 127.30 acres which provided 24.18 thousand quintals of fodder during 2015-16 (Table 3.36). Besides, 18,419 mini kits and 35.17 lakh perennial roots & slips were distributed to farmers. The State has 13 fodder farms producing 2546 quintals of fodder and 4,52,000 root slips. Fodder development programme has been strengthened through State Plan schemes like Minikit Programme, Enrichment of Crop residue and Departmental Fodder farms etc.



### Fodder Production in the Departmental L.B.D Farms, 2015-16

Name of the Farm	Area (in Ac.) for Fodder Production		Fodder Production (in Qtls)	
	Target	Achievement	Target	Achievement
LBD Farm, Cuttack	6.00	6.00	3500.00	3613.08
ECB Farm, Chiplima	44.00	39.10	13200.00	5378.25
LBD Farm, Keonjhar	10.50	10.50	2847.00	2052.49
LBD Farm, Remuna	24.00	8.50	4020.00	1865.30
LBD Farm, Bhanjanagar	22.50	10.20	3480.00	3297.98
LBD Farm, Boudh	2.50	2.50	520.00	511.50
LBD Farm, Sundargarh	21.50	16.50	2956.00	3071.35
LBD Farm, Kuarmunda	35.00	34.00	4860.00	4388.60
<b>ODISHA</b>	<b>166.00</b>	<b>127.30</b>	<b>35383.00</b>	<b>24178.55</b>

[Table 3.36]

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

#### 3.2.10 Dairy Development

##### (a) Promotion of Dairy entrepreneurship (PDE)

It has been intended to promote dairy entrepreneurs through provision of capital subsidy of 25 percent for general and 33.33 percent for S.C and S.T of total project outlay for establishment of Dairy units. The objectives are to promote modern dairy farms, to up-grade traditional technology to handle milk on commercial scale, to generate self-employment and to provide infrastructure mainly for unorganized dairy sector. Under the scheme, 12,936 applications were sponsored out of which 2,859 disbursed during 2015-16.

##### (b) Interest Subvention on support for Dairy Farmers (short term & long term)

The scheme envisages facilitating credit linkage for dairy farmers to avail working capital loan under short term and long term. Farmers pursuing Dairy Farming as an income generating activity and availing short term loan were eligible for loan at subsidized rate of interest of 5 percent and additional 3

percent interest subvention will be made for prompt repayment of instalments in due time. The maximum limit of loan to be availed by the beneficiaries is Rs.3.00 lakh at the rate of Rs.20, 000/- per cow. The maximum period for repayment of loan under the scheme is one year. During 2015-16, 75 applications were disbursed out of 537 and 462 were under processing.

Govt. also provides credit linkage for dairy farmers to avail term loan from banks for equipments, machineries, shed, procurement of livestock and other activities towards asset creation in dairy farming. Interest subvention of 3 percent of the interest rate is provided on term loan availed by the dairy farmers. Further, additional 2 percent interest subvention will be made for prompt repayment of instalments in due time. The beneficiaries who have availed dairy finance under PDE, DEEDS, and Self finance (except KSK) can avail interest subvention on Long Term Credit support. During 2015-16, under this scheme 245 applications were disbursed out of 1,774 sponsored.

**(c) Small Animal Development**

The objective of the scheme is to enhance meat production by improving existing Small Animal Resources of the State through several interventions like genetic up gradation with supply of improved bucks and rams, health care measures including routine deworming & vaccination. There is 1 (one) sheep breeding farm, 5 (five) goat breeding farms and 1 (one) piggery breeding farm in the State to supply graded progenies to farmers for up-gradation of local breeds. These farms are being strengthened in a phased manner. There are 95 sheep, 374 goats and 107 pigs in these farms. During the year 2015-16, under “Genetic Up gradation programme,” a sum of Rs.25.20 lakh was provided for strengthening of 7 numbers of small animal farms (Sheep, Goat & Pig) to produce graded male, for enhancing production and productivity.

**(d) National Mission for Protein Supplementation**

This programme has been launched from 2011-12 in Odisha as a subsector under RKVY. The “Goat scheme” has been implemented in 21 districts of the State with an objective of undertaking goat production as a profitable enterprise and promotes better health care and management for higher productivity and production. During 2015-16, 174 goat units have been assisted with 74,893 goats and provided subsidy to the tune of Rs.199.66 lakh. Besides, 20 goat clusters have been identified and de-worming and vaccination support provided with an expenditure of Rs.100.00 lakh.

**(e) Integrated Livestock Development Programme (ILDLP), Kalyani**

The overall objective of the scheme is to provide gainful self-employment to the rural livestock keepers through dairy and livestock

development programme. This project has four components viz., i) Cattle development programme ii) Goat development programme iii) Fodder development programme and iv) Technology-knowledge and strategy partnership for development of Chipilima fodder farm. Cattle development programme is being implemented in 10 (ten) districts. Doorstep livestock services are provided to the rural livestock keepers to breed the local cows by using superior dairy breeds. 100 cattle development centres have been established and 62,841 artificial inseminations, 134 infertility of heat synchronization camps conducted and 19963 progenies born under this project during 2015-16 (Jan, 2016). Comprehensive Goat development programme has been undertaken in 5 districts viz., Sundargarh, Mayurbhanj, Keonjhar, Bolangir and Deogarh covering 25,000 farm families from 665 villages. Under this programme, 2234 breeding bucks have been provided to the goat keepers. De-worming done for 1.54 lakh goats, 1.11 lakh goats vaccinated against PPR & goat Pox and 656 goat farmers have been trained during 2015-16.

**(f) OMFED**

OMFED was established in 1980 as the apex body for milk procurement and marketing in Odisha. The main objective of OMFED is to promote, produce, procure, process and market milk and milk products for economic development of the rural farming community. It covers all the districts of the State. There are 5,281 Milk Producers Co-operative Societies (MPCS) with 2.68 lakh members under OMFED. Besides 12 milk unions covering all the districts have been affiliated to OMFED. OMFED has 13 dairy plants with 6.55 lakh litres capacity per day, 9 milk chilling centres with 1.95 lakh litres capacity

per day, 345 bulk coolers with 5.41 lakh litres capacity, 1 milk powder plant with 5 MT capacity per day at C.S. Pur, Bhubanewar and one cattle feed plant with 200MT capacity per day at Khuntuni, Cuttack. During 2015-16, the Federation has procured 5.26 lakh and marketed 3.92 lakh liters per day. In addition, it has also marketed milk products viz. ghee, paneer, butter, curd and milk powder and agriculture/organic products viz. turmeric powder and mustard seeds produced by tribes in Kandhamal district. Besides, OMFED has started producing fruit juice, pickles, jam, sauces and pineapple sip. The total turnover of OMFED during 2015-16 is Rs. 68,309.79 lakh which was more than 2014-15 i.e., Rs.67,428.68 lakh. The important activities of OMFED are:

- Organisation of Anand Pattern Dairy Cooperative Societies.
- Procurement of milk from the rural milk producers from their door step through the Dairy Cooperatives at a remunerative price.
- Chilling/Processing of procured milk as well as production of milk & milk products through the dairy infrastructures owned and

managed by the federation as well as its affiliated unions.

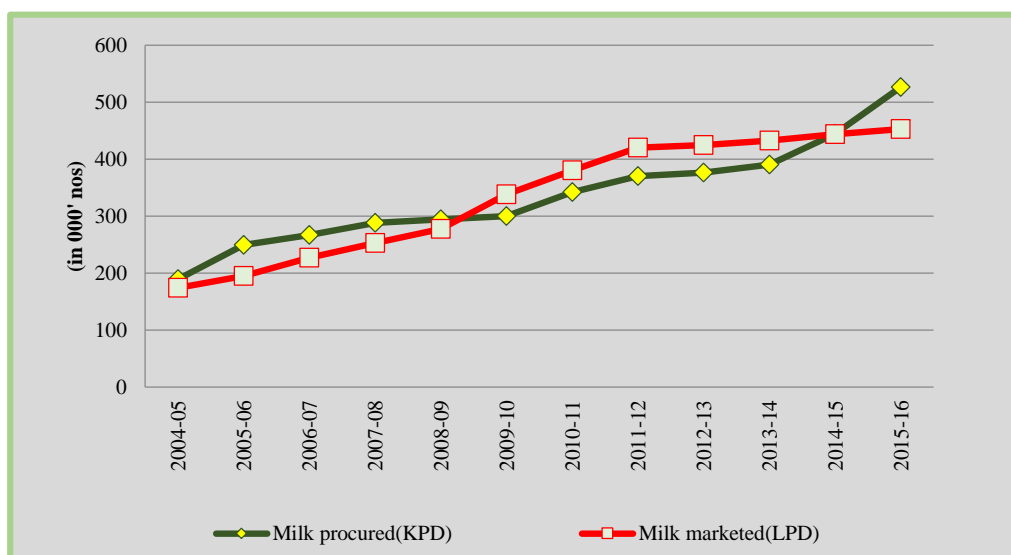
- Introduced Ice Cream in different size and flavor to the range of Milk products. Sale of milk and milk products to the urban consumers at an affordable price.
- Marketing agriculture and organic product i.e. Kandhamal Brand Turmeric Powder produced by the tribals of Kandhamal district.
- Selling mineral mixture in 2 kg packet to remove vitamin deficient disease.
- Training and orientation programme through its own Training and Demonstration centre.
- Management of Fruit Processing Unit which produces different fruits juice, pickle & sauces.
- By-pass protein plant and mineral mixture plant have been established in the campus of cattle feed plant.
- OMFED is operating the RKVY dairy projects in all the 30 districts of Odisha. Total outlay of this projects is Rs.6,960.23 lakh.

#### **New initiatives taken by OMFED during 2015-16**

- Construction of Angul Dairy Plant with 30000 LPD capacity.
- Salapada Dairy having capacity of 30TLPD has already commissioned will start operating very soon.
- Assistance of Rs.160.75 lakh has been utilised for making concrete Flooring of Cowshed to cover 9300 Milk Producers under the programme
- Establishment of Ice cream plant at Sambalpur and Bhawanipatna each with capacity 3000 lakh litres/day with a financial outlay of Rs. 864.00 lakh for each plant
- Under RIDF, Govt. of Odisha has sanctioned an automated 5 LLPD Dairy Plant with project cost of Rs. 285.71 crore.

Milk procured and marketed by OMFED from 2004-05 to 2015-16 is depicted in the following figure

## Milk procured and marketed by OMFED, 2004-05 to 2015-16



[Figure 3.12]

Source: OMFED

**(g) Odisha State Poultry Producers Co-operative Marketing Federation Ltd. (OPOLFED)**

OPOLFED, a State level apex poultry cooperative organization, functions at Bhubaneswar to popularize poultry products and develop a market for them. OPOLFED operates in two-tier system i.e Primary Poultry Co-operative society (PPCS) and women poultry co-operative society at grass root level and federation at the apex level. Presently, 33 PPCS/WPCS are affiliated to OPOLFED. OPOLFED has undertaken marketing of eggs and chicken, production of chicks and balanced premixed poultry. During 2015-16, OPOLFED sold about 42.40 lakh eggs valued at Rs. 2.98 crore, 69,632 kg chicken valued at Rs.88.93 lakh and 420 M.T poultry feed valued at Rs. 96.93 lakh. During 2015, OPOLFED was opened fresh outlets at Sahid Nagar, IRC Village, and OUAT campus in Bhubaneswar and also launching fresh chicken online shopping platform to enhance the market of OPOLFED.

### 3.3 Fisheries

Odisha being a maritime State, is endowed with rich potential of inland, brackish water and marine fishery resources. The State has a long coastline of 480 km with continental shelf area of 24,000 sq kms along the Bay of Bengal. It offers tremendous opportunities for development of fresh water, brackish water and marine fisheries with scope of fish production together with employment and income generation for socio economic prosperity. In order to ameliorate these ample resources, Government has taken up a mission for doubling of inland fish production and tripling the present level of export. The total fish production of the State during 2015-16 is 4.69 lakh MTs and value of export generation is around Rs. 2069.17 crore, which is an all time record. Fresh water resources of the State are estimated to be 6.82lakh hectares comprising of 1.31 lakh hectares of tanks/ponds, 2.0 lakh hectares of reservoirs, 1.80 lakh hectares of lakes, swamps & ponds and 1.71 lakh hectares of rivers and canals. The State's brackish water resources are 4.18

lakh hectares which include 0.79 lakh hectares of Chilika Lake, 2.98 lakh hectares of estuaries, 0.330 hectare of brackish water tanks and 0.081 lakh hectare of brackish water.

### 3.3.1 Odisha Fishery Policy, 2015

The State Government has come up with the Odisha Fisheries Policy, 2015 which offers tremendous opportunities for development of fresh water, brackish water and marine fisheries with scope of fish production together with employment and income generation for socio economic prosperity. The policy aims at:-

- Quantitative and qualitative appraisal of the fishery resources and their potential in the State of Odisha.
- Enhancing the productivity and production of fish from inland, brackish water and marine resources and doubling the fish production in the next five years.
- Tapping the untapped potential of aquaculture to contribute towards food and nutritional security.
- Quality seed production in inland sector.
- Bridging the gap between the demand and supply of fish for domestic consumption.
- Harnessing the opportunity of expanding export markets for high-value products.
- Capacity building, technological intervention, Human Resource Development, Research & Development, Awareness building and Education of fisher folk and other stakeholders.
- Up gradation of infrastructure facilities like Fishing Harbour, Fish Landing Centre (FLCs), cold chain, communication, etc.
- Up gradation of the overall quality of fish with emphasis on hygienic post harvest handling.

- Encouraging public-private partnership investment across the sector.
- Generating additional / supplementary employment opportunities in the rural sector for the fishers, educated unemployed youth and others.

### 3.3.2 Fish Production and Consumption in Odisha

Fish is a popular food item in Odisha. The State ranks 10th in terms of production of fish and produced 4.50percent of the total fish production at all India level during 2014-15(P). During 2015 -16, Odisha produced 521.28 TMT of fish of which 376.53 TMT came from inland sources and 144.75 TMT from marine sources. The inland fish production included 336.22 TMT from fresh waters and 40.31 TMT from brackish waters. Crab production has increased over the years. Fish production from Chilika has marginally increased to 12.05 TMT in 2014-15 to 12.24 TMT in 2015-16. The value of fish production in the State has increased by 24.43 percent over 2014-15. The value of inland fish increased by 31.72 percent whereas Marine fish value declined by 5.66 percent. Out of total 521.28 TMT disposition of fish production, about 85 percent were marketed in raw form while 8 percent kept for sun drying and salting. The per capita fish consumption in the State is also showing an increasing trend. The per capita fish consumption in the State has increased from 8.70 Kg. during 2004-05 to 12.24 Kg. during 2015-16 as against 11 kg recommended by the WHO. This indicates an improvement of the standard of living and change in dietary pattern of the people of Odisha. Details regarding Fish & Crab production and per capita consumption of fish are given in Table-3.37 and Fig.3.13. The source wise Fresh water fish production from 2004-05 to 2015-16 is given in Table 3.38.

## Production of Fish and Crab in Odisha

(in 000' MT)

Year	Inland Fish Production		Marine Fish	Total	Per capita consumption of fish (Kg.)	Crab Production
	Fresh water	Brackish water				
2004-05	170.10	23.80	121.90	315.80	8.70	1.70
2005-06	179.70	23.50	122.20	325.40	9.50	1.40
2006-07	191.63	22.95	128.14	342.72	8.99	1.74
2007-08	195.75	22.97	130.76	349.48	9.29	1.79
2008-09	213.00	26.33	135.49	374.82	13.27	2.09
2009-10	215.80	25.51	129.33	370.64	10.86	2.43
2010-11	224.96	27.75	133.48	386.19	9.42	3.37
2011-12	237.47	30.06	114.30	381.83	10.14	2.26
2012-13	261.92	29.91	118.31	410.14	9.13	2.35
2013-14	263.86	30.01	120.02	413.89	9.66	2.80
2014-15	300.96	35.37	133.21	469.54	11.06	3.22
2015-16(P)	336.22	40.31	144.75	521.28	12.24	3.77

[Table 3.37]

Note: (P) provisional

Source: Directorate of Fisheries, Odisha

## Production of fish and crab in 000 M.T

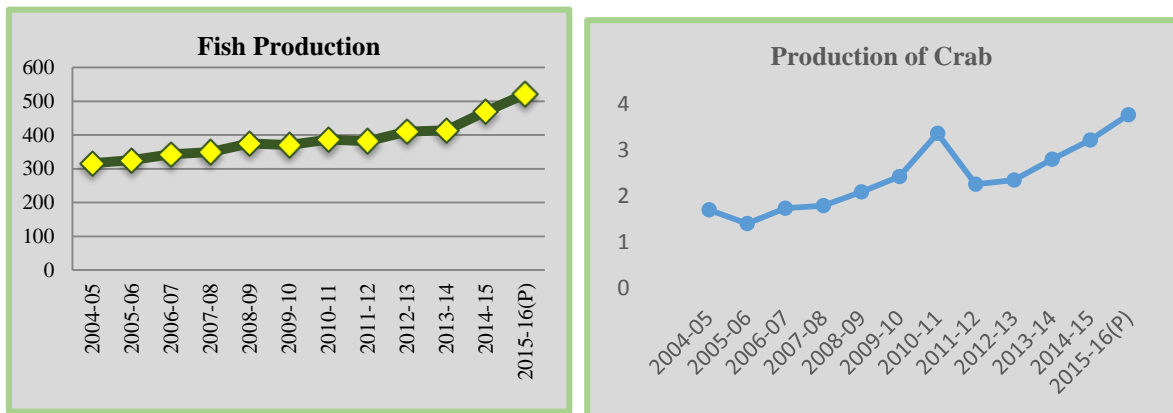


Fig No 3.13]

Source: Directorate of Fisheries, Odisha

## Fresh Water Fish Production from Different Sources

(in 000' MT)

Year	Tanks/Ponds	Reservoirs	Lakes/Swamps/Ponds	Rivers/Canals	Total
2011-12	211.19	13.73	1.94	10.61	237.47
2012-13 (P)	230.43	18.57	2.41	10.51	261.92
2013-14	230.94	18.94	2.80	11.18	263.86
2014-15	261.85	21.83	2.94	14.34	300.96
2015-16 (P)	289.67	22.67	4.25	19.54	336.22

[Table 3.38]

Note: (P) provisional

Source: Directorate of Fisheries, Odisha

## 3.3.3 Export and Import of Fish

As fish production increases in the State, so do its export and import. During 2015-16, 127.73 TMT fish has been exported from Odisha to other States and foreign countries of which

74.57 TMT (55.38 percent) were exported from marine sector. Generally marine products like frozen shrimp, frozen H.C frozen pomphret, ribbon fish, etc. exported to foreign countries like Japan, China, USA, UK, UAE,

Indonesia, Hong Kong. Export of frozen shrimps constitutes about one third of the total marine products exported every year. During 2014-15, 32,557 MT of frozen shrimp worth of Rs. 1744.00 crore was exported to foreign

countries. The import of fresh water fish during 2015-16, was about 46.28 TMT. Year wise import and export of fish is given in Table 3.39. The Marine products export details are presented in Table 3.40.

### Export and Import of Fish

(in 000'MT)

Year	Fish export to other States and Countries				Import of fresh water fish
	Marine Fish	Fresh Water Fish	Brackish Water Fish	Total Export	
1	2	3	4	5	6
2011-12	55.43	21.49	19.32	96.24	59.28
2012-13	69.45	26.34	20.62	116.41	21.22
2013-14	56.65	25.94	19.92	102.50	26.50
2014-15	65.69	24.56	25.37	115.62	38.12
2015-16 (P)	74.57	24.30	28.86	127.73	46.28

[Table3.39]

P: Provisional

Source: Directorate of Fisheries, Odisha

### Export of Marine Products to Foreign Countries

Year	Quantity (in 000' MT)	Value (Rs. in Crore)
1	2	3
2011-12	21.08	792.76
2012-13	23.69	908.48
2013-14	29.48	1769.45
2014-15	32.47	1963.85
2015-16 (P)	35.63	1787.84

[Table 3.40]

P: Provisional

Source: Directorate of Fisheries, Odisha

### 3.3.4 Inland Fisheries

The inland Fisheries can be classified broadly in to two categories: - i) Fresh water Fisheries and ii) Brackish water Fisheries. The Fresh water Fisheries sources comprise of 1,30,339 hectares of small and big tanks and ponds, 2,00,379 hectares of small (area above 10 ha.) medium and large reservoirs, 1,80,000 hectares of fresh water lakes, swamps, and ponds and 1,71,186 hectars water area of rivers and canals. Similarly, the brackish water area comprises of 79,000 hectares of Chilika

lake, 2,97,850 hectares of estuaries, 32,587 hector of brackish water tanks, and 8,100 hectares of backwater .Different ongoing schemes like production of quality spawn, development of reservoir fisheries and development of highland fisheries are being implemented through FFDA's. During 2015-16, for development of highland fisheries in the State, an amount of Rs.492.57 lakh was spent under programme component like training and subsidy by the Govt. of India and State Government.

### 3.3.5 Fish Farmers Development Agency (FFDA)

FFDA is a Centrally Sponsored Scheme and implemented in all the 30 (thirty) districts of Odisha for promotion of pisciculture and providing technical and logistic support to fish farmers. By the end of 2015-16, about 70,064 hectares of tank area has been developed and 57,717 fish farmers were trained through these agencies. Further, 4281 fish farmers received benefits under this scheme.

### 3.3.6 Fresh Water Prawn Culture & Fish Seed

To meet the growing demand for quality fish seed, greater emphasis has been given for production of fish seed in five departmental hatcheries, 19 hatcheries of Odisha Pisciculture Development Corporation, 21 Departmental farmers (FFDA), 105 hatcheries in private sector and 480 private Fry Rearing units. About 89.85 crore quality fries have been produced and sold to pisciculturists for stocking in their tanks during 2015-16. The spawn and Fry production in Government and private sector farms is as follows.

#### Spawn and Fry Production in different Fish Farms

Year	Government	OPDC	Private	Total
<b>Spawn Production (in lakh)</b>				
2011-12	2315.50	7642.75	16803.00	26761.25
2012-13	3037.00	11735.50	13904.00	28676.50
2013-14	3487.00	9680.00	14704.00	27871.00
2014-15	3602.50	9616.25	20635.00	33853.75
2015-16	3588.00	8062.50	15864.00	27514.50
<b>Fry Production in Odisha (in lakh)</b>				
2011-12	994.49	1332.40	3813.86	6140.75
2012-13	738.85	2415.23	3865.28	7019.36
2013-14	1121.13	2388.27	3490.33	6999.73
2014-15	312.29	1172.41	4279.31	5764.01
2015-16	601.42	1612.31	5502.11	7715.84

[Table 3.41]

Source: Directorate of Fisheries, Odisha, Cuttack

### 3.3.7 The State Reservoir Fishery Policy

The State Reservoir Fishery Policy has been formulated with a view to introducing scientific and remunerative pisciculture in reservoirs. The policy aims to attract private sector investment for augmentation of fish production from the vast untapped/ under tapped reservoir resources through scientific management and permits the transfer of

reservoirs having an area of 100 acres and above to the Fisheries and Animal Resources Department, Government of Odisha. The F&ARD Department has been empowered to lease out these reservoirs to Primary Fishermen Co-operative Societies registered under the Odisha Self-Help Co-operative Act, 2001. Preference will be given to displaced persons / project affected persons under the policy.



### Central Institute of Freshwater Aquaculture (CIFA)

The Central Institute of Freshwater Aquaculture began as the Pond Culture Division of the Central Inland Fisheries Research Institute, which was established at Cuttack, Odisha in 1949. The Division was later upgraded as the Freshwater Aquaculture Research and Training Centre (FARTC) established at Bhubaneswar in 1976 with UNDP/FAO assistance. The functional existence of the Institute came into effect from 1st April, 1987. CIFA gives proper direction and attention to such areas of research that would enable development of freshwater resources to obtain increased yield per unit area, thereby leading to higher aquaculture production from the cultivable/reclaimable ponds and tanks in the country. The Institute has a comprehensive mandate of research, training, education and extension in different aspects of freshwater aquaculture. The following are the revised mandates of CIFA during 2014-15

- To conduct basic, strategic and applied research in freshwater aquaculture;
- To enhance production efficiencies through incorporation of biotechnological tools;
- To undertake studies on diversification of aquaculture practices with reference to species and systems;
- To provide training and consultancy services

### Research & Training by CIFA during 2014-15

CIFA undertook 14 institution-based and 25 externally funded research projects. It conducted 20 national level training with 334 participants & 1 international training programme with 2 participants in 2014-15.

### CIFA projects in Odisha

- With the largest freshwater farm comprising over 380 ponds of assorted sizes and yard facilities in the country at Kausalyaganga, Bhubaneswar, the Institute is undertaking researches on carps, catfishes, freshwater prawns and molluscs.
- As a part of the Odisha monsoon contingency plan CIFA scientists have been visiting 5 districts, including Bolangir, Ganjam, Keonjhar, Nayagarh and Sambalpur and collected detailed information on agriculture crops, soil and water characteristics, rainfall trend during the entire year. They had extensive discussions with district officials including collector, KVK staff and state fisheries officers. The institute has transferred seeds of aeromoniasis resistant selectively bred rohu to the Vijayawada RRC for on farm trials with a view to releasing the same to the farmers.
- Indian army-sponsored training for tribals from Assam on freshwater aquaculture conducted under the TSP programme at Bhubaneswar was a notable event of the reporting period. These hapless tribals are often caught in cross fire between militants and government forces; the skill development in aquaculture imparted to them would go a long way for their rehabilitation and economic support. ICAR-CIFA has signalled its entry to e-Governance by implementing Management Information System (MIS) including Financial Management System (FMS).
- The institute has also done water budgeting of carp culture ponds in Andhra Pradesh, West Bengal and Odisha.

### 3.3.8 Brackish-Water Fisheries Development Agencies (BWFDA)

BWFDA have been set up in seven coastal districts, abundant in brackish water resources. The State has a total brackish water area of 4.18 lakh hectares out of which 32,587 hectares is suitable for prawn culture. These agencies have developed about 18,160 hectares prawn culture area by the end of 2015-16. Brackish water prawn culture was undertaken in an area of 8991.00 hectares and 23.343 MT brackish water shrimp was produced during 2015-16. About 927 shrimp farmers have been benefited and 272 farmers trained on modern shrimp culture techniques during. Around 24031 hectares of suitable Government land have been identified for development of

brackish water shrimp culture on long term lease in future. Source wise Brackish water Shrimp production is given in Table-3.42. Chilika Lake with average water spread area of 906 sq kms in summer and 1,165 sq kms in monsoon and island area of 223 sq kms are the main sources of brackish water fisheries in the State. The Lake is surrounded by 132 fishermen villages with 22,032 families and 1, 34,093 population. The fishermen actively engaged in fishing in the lake are around 34,536. Out of 170 registered cooperative societies, 150 are in operation with 39,534 fishermen. There are 27 landing centers in which 11,836 MT of fish/shrimp and 398.77 MT crabs were collected during 2015-16.

#### Source-wise Brackish Water Shrimp Production in Odisha

(in 000' MT)

Year	Chilika lake	Brackish water shrimp	Estuaries	Total Production
2011-12	14.23	11.97	3.86	30.06
2012-13	12.47	13.23	4.22	29.91
2013-14	12.94	12.61	4.46	30.01
2014-15	12.05	19.25	4.07	35.37
2015-16	12.24	23.34	4.73	40.31

[Table 3.42]

Source: Directorate of Fisheries, Odisha

### 3.3.9 Marine Fisheries

The State has 6 percent of the coastline and 4.7 percent of the continental shelf area of the country. Among six coastal districts, Puri has the longest coastline of 155 kms and Bhadrak the shortest with 50 kms. About 144.75 TMT of fish were caught from marine sector during 2015-16, of which prawn, catfish and pomphrets are some of the important species. The State has 73 marine fish landing centers. Odisha Maritime Fishing Regulation Act has been implemented in the State to safeguard the coastal water areas of the State. Registration/renewal of trawler licenses and

conservation of endangered species of fish and turtles are being taken up. Up gradation works of Dhamara fishing harbour and Balugaon fish landing center are under progress. Both fresh water and brackish water prawn culture have assumed considerable importance on account of their profitability as well as export potential. In addition, Govt. Shrimp hatchery at Chandrabhaga in Puri district and Gopalpur at Ganjam district and 12 other private shrimp hatcheries have been established at different areas of Gopalpur, Konark and Puri. Odisha has a total inland fishermen population of about 9.03 lakh according to the projected population estimates of 2016. Chilka region

has the highest inland fisherman population of 1.48 lakh followed by Ganjam (1.09 lakh) Khurda (0.80 lakh) & Cuttack (0.76 lakh). Out of 9.45 lakh marine fisherman population in the State, Balasore has the highest population of 4.18lakh followed by Kendrapara (2.29 lakh) and Puri (1.42 lakh) districts by 2016 (projected). Odisha has the highest number of 813 fishing villages among the coastal States. But it has fewer number of fish landing centres (73) as compared to 407 & 353 landing centres in Tamilnadu & Andhra Pradesh.

### 3.3.10 Fishermen's Welfare Schemes

There are 1,156 Primary Fishermen Co-operative Societies in the State, out of which 656 were operational during 2015-16 consisting of 1, 38,092 members. Some of the ongoing welfare schemes for fishermen implemented in the State are: Accident Insurance Scheme, Saving-cum-Relief, Matsyajibi Basagraha Yojana, Motorisation of Traditional Crafts, Biju Krushak Kalyan Yojana, Fishing harbour and FLCs for safe landing, Safety of Fishermen at Sea, Development of Model Fishermen Villages, Implementation of Marine Fishing Regulation Act, Enumeration of Coastal Fishers for issue of Biometric Identity Cards for security purposes, Assistance to fishermen for development of livelihood with Boat and Net. Benefits availed by Fishermen under welfare schemes in 2015-16 are explained below.

#### (a) Accident Insurance Scheme

A sum of Rs.2.00 lakh is provided in the event of accidental death or permanent disability and up to Rs. 1 lakh is given in the event of partial disability. Further Rs. 10,000/- is allowed as assistant to fishermen towards hospitalization expenses during serious disease that keep them out from livelihood activities. In 2015-16

(up to December-2015), 11.50 lakh fishermen have been covered under this scheme with a compensation of Rs. 233.00 lakh.

#### (b) On Line Registration of Fishing Vessels and Development of Model Fishermen village

By the end of December 2015, 9320 country crafts, 7,578 motorized crafts and 1,755 mechanized crafts have been registered online, to provide basic civic amenities like houses, drinking water and community hall to 20 selected houses in a village.

#### (c) Safety to Marine Fishermen

In the 1st phase,1,53,000 Biometric Identity Cards and 470 numbers of Distress Alert Transmitters (DAT) have been distributed to selected fishermen of the State during 2015-16. In the second phase, 1,05,000 more cards have been distributed.

#### (d) Saving cum Relief and Motorisation of Traditional Crafts

Under saving cum relief scheme, 7002 fishermen have been benefitted during lean period of fishing and to inculcate the habit of savings among them. Besides, 882 traditional crafts have been motorized with a subsidy of Rs.488.79 lakh.

#### (e) Matsyajibi Basagraha Yojana

Under this scheme, poor and active fishermen were assisted to construct a dwelling house worth Rs.90,000/- (Rs.75,000/- Government assistant +Rs.15, 000/-beneficiaries contribution). 1066 number of such dwelling houses have been allotted with a grant of Rs.800.00 lakh as on February, 2016.

#### (f) Biju Krushak Kalyan Yojana

Under Biju Krushak Kalyan Yojana health insurance up to Rs.1.00 lakh has been provided to the fishermen families covering 5 members.

### (g) Rastriya Krishi Vikash Yojana (RKVY)

Under RKVY programme livelihood support has been provided to the families affected by natural calamities. Construction of FRP boat/wooden boat /FRP sheathing on wooden boat in Marine/ Chilika with 75 percent subsidy assistance subject to maximum Rs.0.25 lakh in the norm. So far 4,538boat and net have already been provided and Rs.32.55 crore of subsidy has been distributed among the beneficiaries.

### 3.3.11 Fish Production at National and International level

The total fish production in different States for the period 2011-12 to 2014-15 is shown in Table- 3.43. During 2014-15 Andhra Pradesh tops the list with 1798.58 TMT followed by West Bengal and Gujarat, Odisha held 10th position at National Level, produced 469.54 TMT with 4.50 percent of the total fish produced in India during 2014-15. At international level China is the highest fish producing country followed by India, Indonesia, and Peru. During 2011, fish production in India stood at 8,875 TMT, about 5.68 percent of the total fish production in the world (156195 TMT) China produced 54,393 TMT fish which is about 34.4 percent of the total world fish production during the same year.

#### Fish Production by major States

(in 000' MT)

States/ Union Territories	2011-12	2012-13	2013-14	2014-15
Andhra Pradesh	1603.17	1808.08	2018.42	1798.58
Gujarat	783.72	788.49	793.42	891.88
Karnataka	546.44	525.57	555.31	613.24
Kerala	693.21	679.74	708.65	726.01
Maharashtra	578.79	586.37	602.68	711.45
Odisha	381.83	410.14	413.89	469.54
Punjab	97.62	99.13	104.02	114.77
Tamil Nadu	611.49	620.40	624.3	697.61
Uttar Pradesh	429.72	449.75	464.47	494.27
West Bengal	1472.05	1490.02	1580.65	1617.32
India	8666.49	9040.36	9578.97	10431.36

[Table 3.43]

Source: Hand Book on Fisheries Statistics, 2011, GOI

#### New Initiatives for Fisheries Development

- A modern hygienic pre fabricated fish retail kiosk named Chilika Fresh has been set up at Siripur, Bhubaneswar where varieties of fresh water, brakish water and marine fish with crab and lobster are being sold in hygienic condition. Very soon this will be opened in other parts of State capital.
- Matsya Sampad Vikas Utsav was organised for the first time in 2015 for replenishment and conservation of fish genetic resources.
- A new Odisha Fisheries Policy, 2015 has been put in place with an objective to increase the productivity and production of fish from inland brakish water and marine resources.

[Box 2 ]

### 3.4 Forestry and Environment

Forests play a key role in maintaining ecological stability, reducing impact of natural calamities and checking soil erosion system. Different activities are being undertaken for protection, regeneration and extension of forest and tree cover in the State in participatory mode with involvement of local people for ameliorating the micro climate as well as environmental management and conservation. National Forest Policy 1988, Odisha Forest Sector Vision, 2020 and Joint Forest Management Resolution, 2011 provide guiding principles for forest management in the State. It ensures sustained livelihoods to forest-dependent communities which are mostly scheduled tribes. Forestry & logging sector contribute about 2 percent of real GSDP of Odisha.

#### 3.4.1 Forest and Tree Cover

Odisha is endowed with rich forest cover & resources. The State forest areas is unevenly distributed that cover 37.34 percent of the State's geographical area. Forests are generally located in the districts situated in the Eastern Ghats, Central Table Land and Northern Plateau. The State has a recorded forest area measuring 58,136 sq km as on

2014-15. This includes 26,329 sq km (45.29 percent) of reserve forests, 15,525 sq km (26.70 percent) of protected (demarcated & un-demarcated) forests and 16,282 sq km (28.01 percent) of un-classed forests under Government forest area. A total 12.29 sq.km of forests are under private ownership. The coastal districts with high population density have comparatively smaller areas of forests. The forest cover in 2014-15 was highest in Kandhamal district (9.8 percent) followed by Sundargarh (8.5 percent), Mayurbhanj (7.6 percent), Ganjam,(5.4 percent) and Keonjhar (5.3 percent) The coastal districts such as Balasore, Bhadrak, Jagatsinghpur, Kendrapara and Puri have less than 10 percent of forest areas. Forest Survey of India (FSI) makes satellite survey of actual forest cover of States every 2 years. The trend of actual forest cover (excluding tree cover) of Odisha by State of Forest Report assessment by FSI between 1991 and 2015 is presented in Table 3.44 and figure 3.14. During 2015-16, achievement under different afforestation programme was under AR-16576 hectare, ANR with gap 98540.08 hectare, ANR without gap 241975 hectare with total 357091 hectare and avenue and canal plantation of 4606 .74 km was achieved.

#### District wise Forest Area

(in Sq. KM)

Name of the District	Geographical Area	Total forest Area	Forest land under control of Forest Department		Forest land under control of Revenue Deptt.		
			Reserve forests	Unclassified forests*	Demarcated Protected forests (DPF)	Undemarcated Protected forests	Other forests under Revenue Deptt.
Angul	6375	2716.82	1760.76	1.15	273.21	11.99	669.71
Balangir	6575	1543.85	1105.68	0.14	3.63	0	434.4
Balasore	3806	332.21	202.69	0.19	21.54	0	107.79
Bargarh	5837	1216.13	583.52	0.13	451.19	0	181.29
Bhadrak	2505	97.07	0	0.01	3.96	32.98	60.12
Boudh	3098	1277.17	983.33	1.02	43.48	0	249.34
Cuttack	3932	787.9	522.39	0.45	101.41	0	163.65
Deogarh	2940	1560.22	578.4	0.04	243.86	0	737.92

<b>Dhenkanal</b>	4452	1737.62	1141.02	0.04	13.78	0	582.78
<b>Gajapati</b>	4325	2468.98	416.89	0.13	108.15	1149.41	794.4
<b>Ganjam</b>	8206	3149.9	1485.69	0.86	143.54	1167.36	352.45
<b>Jagatsinghpur</b>	1668	132.92	1.23	0.02	4.77	83.06	43.84
<b>Jajpur</b>	2899	725.27	6.35	0.01	299.32	0	419.59
<b>Jharsuguda</b>	2081	202.44	35.53	0.04	109.97	0	56.9
<b>Kalahandi</b>	7920	2538.01	1449.03	0.54	488.51	313.37	286.56
<b>Kandhamal</b>	8021	5709.83	2010.06	2	1783.3	0	1914.47
<b>Kendrapara</b>	2644	248.05	14.49	4.5	127.57	62.32	39.17
<b>Keonjhar</b>	8303	3097.18	1834.09	0.26	273.64	220.79	768.4
<b>Khurda</b>	2813	618.67	298.81	0.68	209.87	0	109.31
<b>Koraput</b>	8807	1879.53	478.86	0.68	984.58	0	415.41
<b>Malkangiri</b>	5791	3355.88	352.44	0.3	940.61	661.92	1400.61
<b>Mayurbhanj</b>	10418	4392.13	3330.14	2.2	245.06	0	814.73
<b>Nuapada</b>	3852	1849.69	0	0.44	1504	0	345.25
<b>Nayagarh</b>	3890	2080.97	1301.99	0.25	188.03	135.58	455.12
<b>Nawarangpur</b>	5291	2462.73	535.34	0.07	685.77	0	1241.55
<b>Puri</b>	3479	137.1	15.66	0.51	85.88	0	35.05
<b>Rayagada</b>	7073	2812.33	771.62	0.96	1147.19	0	892.56
<b>Sambalpur</b>	6657	3631.77	2151.71	1.18	363.01	0	1115.87
<b>Sonepur</b>	2337	415.78	309.52	0.03	0	0	106.23
<b>Sundargarh</b>	9712	4957.32	2651.88	1.72	836.85	0	1466.87
<b>Odisha</b>	155707	58135.47	26329.12	20.55	11685.68	3838.78	16261.34

[Table 3.44]

Source: PCCF, Odisha

(\*Forest Deptt. Buildings, roads, nurseries etc.)

**Trend of actual forest cover (excluding tree cover) of Odisha (in Hectare)**



[Figure 3.14]

Source: PCCF, Odisha

State Forest Report 2015 by Forest Survey of India is released in December 2015. The major highlights of the FSR, 2015 for Odisha is given in Box.

### Forest Survey Report (FSR), 2015

- Out of the sixteen major forest type groups in India, four major forest types that exist in Odisha are: Tropical Dry Deciduous Forests (57.87 percent), Tropical Moist Deciduous Forests (39.88 percent), Tropical Semi Evergreen Forests (0.68 percent) and Littoral & Swamp Forests (0.48 percent).
- Plantations/trees outside forests (TOF) in Odisha constitute 2.56 percent of the total Geographical area of the State. The actual forest cover of Odisha in 2014-15 was 50354 sq km, which constitutes 32.34 percent of the State's geographical area in terms of forest canopy density classes. The corresponding figure for 2013 was 50347 sq km. Thus, the actual forest cover increased by 07 sq km from 2013 to 2015. This increase in forest cover is due to conservation measures and improvement in mangrove areas and plantation activities area by State Forest Department.
- The State has 7023 sq km of 'Very Dense Forests' (VDF) with crown density above 70 percent, 21470 sq km 'Moderately Dense Forests' (MDF) with crown density ranging from 40-70 percent and 21861 sq km of 'Open Forests' (OF) with crown density ranging from 10-40 percent assessed separately.
- Tree cover outside forests (TOF), assessed separately, is 3986 sq km. The VDF, MDF, OF, TOF, Scrub and non-forest area constitute respectively 4.51 percent, 13.79 percent, 14.04 percent, 2.56 percent, 2.89 percent and 64.72 percent of the total geographical area of Odisha.
- Mangrove cover increased to 231 sq kms in 2015, a rise by 8.45 percent over 2013.
- The actual forest & tree cover together constitute 34.90 percent of total geographical area of the State.
- The State's forest & tree cover shares 6.84 percent of India's forest & tree cover. Per capita forest and tree cover of Odisha is 0.130 hectare as per 2015 SFR estimate.

#### [Box 3]

### 3.4.2 Forest Area Diversion

By 2015-16 (As on 1.10.2015), 433 diversion proposals covering an area of 46,708 hectares were diverted under the Forest Conservation Act, 1980 for different development projects. Out of these, 162 proposals relate to Mining sector alone covering an area of 21,256 hectares, 83 proposals are of irrigation sector covering an area of 9713 hectares and the balance 188 proposals covering an area of 15739 hectares are for other sector such as Industry, Energy, Railway, Road and bridges etc. During 2015-16, seven project proposals have been approved for diversion of 756

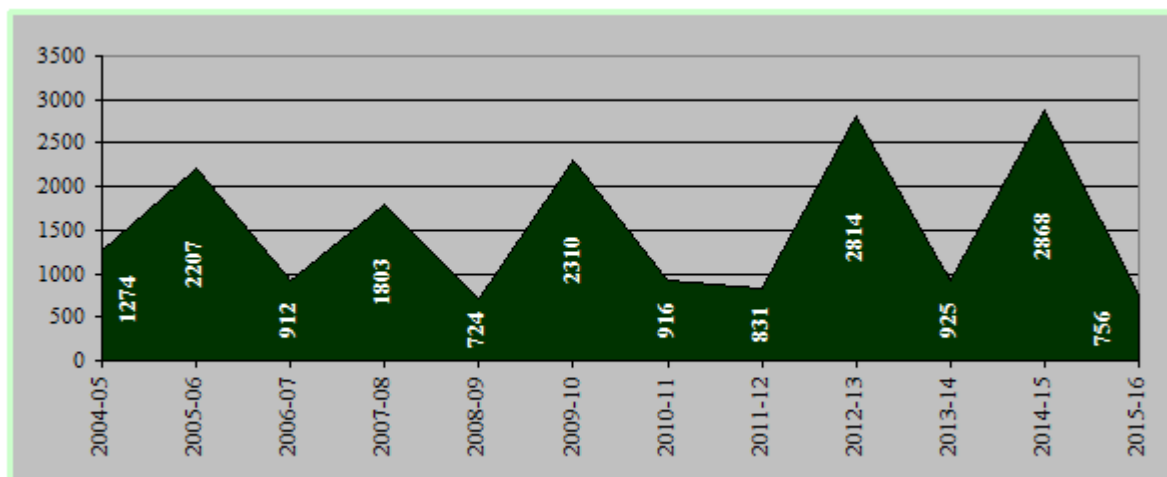
hectares of forest area. This diversion of forest area to non forest use sharply reduced in 2015-16 as compared to a much larger forest area diversion of 2868 hectares for 21 projects of non forest uses in 2014-15. Besides 49 hectares of forest land have been diverted under General Approval by the State Government under Forest Conservation Act 1980 for different development projects in LWE districts. In the last 11 years between 2005-06 and 2015-16, the establishment of 176 projects of non forest uses resulted in diversion of 17065 hectares of forest areas in the State. The following Table and Figure 3.15 explain the year-wise forest area diversion.

**Forest Area Diverted to Non-forest Use (2004-05 to 2015-16)**

Year	Number of Projects	Area diverted to non-forest use (in hectare)
2004-05	9	1274.39
2005-06	28	2207.23
2006-07	17	911.83
2007-08	20	1802.58
2008-09	14	723.74
2009-10	15	2310.16
2010-11	13	915.95
2011-12	13	831.18
2012-13	10	2813.74
2013-14	18	925.407
2014-15	21	2867.588
2015-16	7	756.0094

[Table 3.45]

Source: PCCF, Odisha

**Area Diverted from Forest to Non -forest Use**

[Fig 3.15]

Source: PCCF, Odisha

### 3.4.3 Afforestation Programme

#### Afforestation

A series of State and centrally sponsored afforestation programmes are being implemented in the State to combat the degradation of forest area occurring due to economic and developmental activities. Compensatory afforestation assumes vital importance for the State. Whenever a proposal

for diversion of forest land for non-forestry purpose is approved by Central Government, there is a stipulation to raise Compensatory afforestation over equivalent non-forest land or over twice the degraded forest land. Compensatory afforestation has been raised over 10,742 hectares by the end 2015-16. Achievements under different Afforestation programme from 2010-11 to 2015-16 are shown below.



## Achievements under Different Afforestation Programme, 2010-11 to 2015-16

(area covered in Ha.)

Programme	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Economic Plantation	1800	2000	2050	2100	2300	2300
Compensatory Afforestation	4285	4188	4325	2114	5464	10741.6
National Afforestation Programme through FDA,s	2784	2240	2083	1875	4910	4590
Odisha Forestry Sector Development Project	78220	25745	13677	3410	14247	-
Industrial Plantation	290	55	12	-	-	-
National Bamboo Mission	1040	1023	2083	1545	2915	-
NREGS and Other Schemes	9543	146935	83057	93889	169055	28354
Avenue Plantation (Running Kilometers RKM)s	241	769	3107	4506	4755	4606

[Table 3.46]

Source: Chief Wildlife Warden Odisha

## 3.4.4 Production and Revenue Collection

Odisha produces 11 percent of the country's Kendu leaf production. Odisha is the third largest producer of Kendu leaf (KL) next to Madhya Pradesh and Chattishgarh. The annual production of kendu leaf in the State is around 4 to 4.5 lakh quintal. Sundergarh, Angul, Deogarh, Kalahandi, Keonjhar, Kandhamal, Malkanagri, Nabarangpur, Koraput, Dhenkanal, Jharsuguda, Sambalpur, Baragarh, Bolangir, Sonapur, Boudh and Nuapada are the main kendu leaf producing districts.

During 2015, kendu leaves for Qtl.375.80 thousand with sale value of Rs. 541,92.11 lakh and during 2016 a total quantity of Qtl.220.71 thousand with sale value of Rs.503,49.37 lakh were produced and handed over to OFDC for marketing. About 150 lakh person-days of employment generated under different Kendu leaf operations. The procurement price of green kendu leaves was enhanced from 35 paise to 60 paise per kerry (i.e., a bundle comprising 20 leaves) from 2014.

## Production &amp; Revenue Collection from Forest Products by OFDC

Item	Unit	2014-15			2015-16		
		Production	Quantity sold	Revenue Collected (Rs. in crore)	Production	Quantity sold	Revenue Collected (Rs. in crores)
Timber & Timber Product (Round & Swan)	Cum	48170	33047	73.67	60466	45114	96.33
Fire wood	MT	32367	28306	8.93	32247	33553	11.33
Bamboo	SU	3964.53	23973	5.45	19151	8507	3.00
Kendu Leaf	Lakh Qtls.	3.96	4.08	390.73	3.76	4.09	554.4

[Table 3.47]

Source: Odisha Forest Development Corporation (Director Operation)

### 3.4.5 Odisha Forest Development Corporation Limited (OFDC)

OFDC, a wholly Government of Odisha undertaking, has created enduring value by securing sustainable and scientific forestry, greening of landscape, meeting people's requirement of timber, firewood, bamboo also promoting forest based industries and creating employment opportunities. OFDC is a debt free and profit earning PSU which has been evaluated as an "Excellent Category PSU". OFDC trades mainly in timber, kendu leaf, bamboo, sal seeds and other non-timber forest produce and supply timber and firewood to the people and industries through its 136 depots. Total outturn of timber of OFDC during 2015-16 was 60466 cum (59133 round+1333 swan), and firewood was 32247 M.T. The Corporation sold 45114 cum timber and 33553 MT firewood valued at Rs.96.33 crore and 11.33 crore respectively during 2015-16. It has undertaken extraction of harvestable bamboo through the Raw Material Procurers (RMP) appointed by the Government. Bamboo production in the same year stood at 19,151 sale units and Corporation earned Rs.3.00 crore from bamboo trading. Production and Revenue collection from different forest produce during 2015-16 is reflected in Table 3.47.

### 3.4.6 Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

The scheme is in operation since 2006-07. By the end of 2015-16, (Dec-2015) afforestation has been done in 28,354 hectares. Besides, AR plantation was raised in over 2,109 running kms and 26,245 hectares of ANR with gap plantation during the period. During this period, 123.60 lakh saplings have been planted and 3340 RKM Avenue plantation done.

### 3.4.7 Odisha Bamboo Development Agency

Odisha Bamboo Development Agency (OBDA) has been formed to promote the bamboo sector in the State with special focus on commercial cultivation of bamboo in private land, thereby promoting sustainable livelihood for tribal and rural poor with special emphasis on women empowerment. Since inception of the OBDA in 2006-07 till 2015-16, total bamboo plantation has reached over 13,042 hectares both in Government and private land. Odisha has 9 percent of the country's total bamboo forest cover and 7 percent of total growing stock of bamboo. Bamboo in forest areas of the State grows as a mixed crop associated with Sal and other species. The mixed bamboo forest area is spread over 17,795 sq km, while pure bamboo forests, occurring mostly as bamboo brakes, and is about 375 sq km. The production of bamboo is approximately 2 lakh MT annually of which about 50,000 MT is produced from private lands. The cultivated species (i.e., *Bambusa vulgaris* and *Bambusa nutans*) are grown mainly in Mayurbhanj, Balasore and Bhadrak districts. The major achievements of the OBDA during 2015-16 include:

- Revival of 64 old nurseries.
- Raising of bamboo plantation over 368 hectares of Forest area, 628 hectares of non-forest private land and in 15 hectares non-forest Govt. land.
- Improvement of 51 hectares of existing stock in private land and provision of micro irrigation of 21 hectares by farmers.
- Organisation of 36 farmers' trainings, 12 Artisan training programme and 6 domestic trade fairs and exhibition.

### 3.4.8 Forest Protection and Management

With growing population, there has been tremendous pressure on the forests, both for forest produce as well as for forest land. Protection of forests and wild life is one of the most important mandates. The State is divided into 282 Ranges, 1001 sections and 3,136 Beats. The average forest area per Beat comes to 18.54 sq. kms, per forest section, 58.8 sq. kms and per Range 206.15 sq. kms. It is quite high from the management point of view. During 2015-16, 60,299 forest offence cases have been booked, 2,172 persons have been arrested, and 2680.04 cubic meter of timber and 705 non-motorised and 681 motorized vehicles have been seized.

The following measures have been taken to strengthen the forest protection during 2015-16

- 208 Forest check gates set up at vulnerable transit points all over the State for checking illegal transportation of forest produce.
- 19 APR units deployed in 19 Forest Divisions to assist forest staff in protection activities.
- There are 590 VHF stations and 880 walk-talkies operational in the State for strengthening communication network for monitoring protection activities.
- 354 Kms of forest have been maintained, 25 culverts, 102 causeways have been constructed to facilitate mobility for forest / wildlife protection.
- Rewards are being given to informers, staff, public etc. as per “Reward for Detection of Forest Offence Rule, 2004” to encourage them to co-operate in forest protection activities.

- 82 vehicles (four Wheelers) and 42 motorcycles have been purchased out of CAMPA funds for exclusive use in forest protection in vulnerable areas.
- 91 Forest protection squads, 65 para forest staff unit and 216 Fire protection squads constituted under different schemes involving 910nos, 1950 nos. and 2,160nos of local youths respectively for forest protection activities in different forest divisions.
- 12,513 Vana Surakshya Samities (VSS) formed and assigned with a total forest area of 11,69,748 sq. kms. for protection.
- 506 Eco-Development committees have been formed to protect forest and wild life.

### 3.4.9 Odisha Biodiversity Board (OBB)

Odisha Biodiversity Board (OBB) functions since 2009 in Odisha under the legal provision of Biological Diversity Act 2002, envisages conservation of biodiversity, sustainable use of its components and fair & equitable sharing of benefits arising out of use of biological resources and associated traditional knowledge. The physical achievements of OBB during 2015-16 include:

- Implementation of Biological Diversity Act, 2002
- Constitution of Biodiversity Management Committee (BMC)
- Preparation of People Biodiversity Register at Gram Panchayat level
- Capacity building for forest Officials and BMC members
- Organisation of National & State level conferences, media publicity, research & development projects, publications etc.
- Celebration of International Biodiversity Day, 2015

### 3.4.10 Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

State Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Programme constituted in 2009, aims at conservation, protection, regeneration and management of existing natural forests, wildlife, and their habitat and raising site specific compensatory afforestation, penal compensatory afforestation etc. CAMPA so far formulated 6 Annual Plans of operation and 2 Additional Annual Plan Operation so far since 2009-10. During 2015-16, following activities under CAMPA were undertaken:

- Compensatory afforestation
- Conservation, regeneration and management of natural forests,
- Forest protection
- Control & prevention of forest fire
- Infrastructure development
- Wildlife management
- Monitoring mechanism

### 3.4.11 State medicinal Plant Board

The State Medicinal Plant Board has taken up the following activities during 2015-16.

- Created awareness on conservation, use, cultivation and marketing of medicinal plants.
- Conducted State Level & Regional Level Kalinga Herbal Fairs at Berhampur & Nuapada.

### 3.4.12 Wildlife, Ecology and Environment

Odisha with its diversified topography and climate has been the abode of rich biodiversity and a variety of wildlife species.

#### (a) Wild Life Sanctuaries and National Parks

The total protected area in the State is 8352.19 sq KM, which constitutes 5.36 percent of the total geographical area. There are nineteen wildlife sanctuaries, one national park at 'Bhitarkanika' one wildlife sanctuary at Kapilash in Dhenkanal district, One Zoological Park at Nandankanan, Bhubaneswar and 2 mini Zoos. Besides, there are two tiger reserve and three elephant reserve in the State. Similipal will be declared as national park very soon. Similipal has dense forests and hills and is home to a wide variety of wild animals, reptiles and birds. Bhitarkanika is a wetland and one of India's finest coastal ecosystems. It has rich mangrove area on the deltaic region of the river Brahmani and Baitarani and is crisscrossed by creeks and rivulets. After Sundarbans, it is home to the second largest mangrove "forest" in India. UNESCO has bestowed the world heritage status to Bhitarkanika.

#### (b) Tigers and Elephants

Odisha has two "notified" tiger reserves; the Similipal Tiger Reserve in Mayurbhanj district and the Satakoshia Tiger Reserve in Angul district. With the help of new technique of Camera Trap method introduced by National Tiger Conservation Authority (NTCA) and Wild Life Institute of India (WLI) scientists calculated the presence of 45 tigers during January 2006 to February 2008. This number has come down to 28 in the census undertaken during 2014-15 which further increased to 40 during 2015-16. Leopard population in the

State was recorded at 318. There are 3 Elephant Reserves in the State, located in Mahanadi and Sambalpur. Elephant population during 2010-11 was 1886, which increased to 1930 during 2012-13 in 2014-15 it is recorded as 1954. All Odisha Elephant census, 2015 conducted throughout the State.

#### (c) Turtles

The mass nesting sites of Olive Ridley sea turtles are located at Gahiramatha Sanctuary. During 2015-16 nesting season 0.52 lakh Olive Ridley Sea Turtles visited Odisha coast for mass nesting as against 4.13 lakh in 2014-15. At Rushikulya River mouth 3.09 lakh turtles nested in the year 2014-15. The State Government is giving top priority for the safety of these turtles. Under Integrated Coastal Zone Management Project, 10 river squads at Bhitarkanika and 2 patrolling boats at Rushikulya have been engaged for protection of Olive Ridley sea turtles.

#### (d) Migratory Birds

The winter welcomes many avian guests to Chilika, Bhitarkanika and other water spread areas in the State. Chilika lagoon receives over 7.5 lakh birds every year. Nalabana, island inside Chilika lagoon is an abode of avifauna and becomes a paradise for the migratory birds in winter. Avian species like pintail, gull-billed tern, common sand pipers, bar headed geese, grey leg geese, spotted eagle and osprey are some of the species of migratory birds. The census conducted for migratory birds in 2015-16 reflects that 8.39 lakh birds of 94 species, 1.06 lakh birds of 131 species and 0.96 lakh birds of 60 species visited Chilika lagoon, Bhitarkanika mangrove wetlands and Hirakud Reservoir respectively. Increased awareness, improved protection measures and surveillance have reduced hunting of these birds. Different wildlife species in the forests of Odisha for the year 2010-11 to 2015-16 has been depicted in Table 3.48.

**Wildlife Census in Odisha**

Sl. No.	Species	Census & Site	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1	Salt water	Bhitarkanika	1670	1659	1661	1655	1678	1683
2	Mugger Crocodile	Satkoshia/Mahanadi	91	81	76	90	86	103
		Similipal Tiger Reserve	85	82	80	79	81	79
		Ghodahada Reservoir, Digapahandi, Ganjam	-	40	48	46	49	55
3	Gharial	Mahanadi river system	03	6	6	02	01	03
4	Olive Ridley sea turtle	Gahirmatha (in lakh)	4.72 lakh	1.68 lakhs	4.06	-	4.13 lakh	0.52
		Rushikulya river mouth (in lakh)	2.52 lakh	4.01 lakhs	2.88	0.60	3.09 lakh	0
		Total (lakh no.)	7.24	5.69	6.94	0.60	7.22 lakh	0.52
5	Irrawaddy Dolphin	Chilika lagoon	156	145	152	158	144	-
6	Dolphin	7 species					450	450
7	Blackbuck	Balukhand- Konark Wildlife Sanctuary	34	13	22	-	3806	-
		Balipadar- Bhetnoi	2181	-	-	-		-

Sl. No.	Species	Census & Site	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
		area in Ganjam District						
8	Elephant	Entire State	1886	1930	1930		1954	1954
9	Tiger	Entire State	32	-	-		28	40
10	Leopard	Entire State	-	-	-	-	-	318
11	Migratory Birds	Chilka lagoon	7.92 lakh 103 species	8.68 lakhs106 species	8.62 lakh 112 species	7.07 lakh 99 species	7.46 Lakh 102 species	8.39 lakhs94 species
		Bhitarkanika Mangrove Wetland	0.53 lakhs 107 species	0.53 lakhs 118 species	0.82 lakh 111 species	0.67 lakh 142 species	1.13 lakh 145 species	1.06 lakh 131 species
		Hirakud reservoir	0.11 lakh 34 species	0.47 lakh 52 species	N.A	0.64 lakh 54 species	0.58 lakh 64 species	0.96 lakh 60 species

[Table 3.48]

Source : PCCF Wild Life

### 3.4.13 Man Animal Conflict

Because of accelerated developmental activities and promotional aspects of Industries added with biotic pressure has created a challenge for protection of wild life and its habitat, as a result human and wild life conflicts occur quite often. Man – animal conflict has been an increasing concern for Odisha in recent years. Depletion of dense forest areas has led to life and food insecurity of wild animals, elephants to be specific. Death & injury of people & domestic animals, mass damages of houses & crop areas etc by elephants & other wild animals rise with serious concern. During 2015-16, 74 people were killed, 64 injured, 4 cattle killed, 1128 houses and 13,112 ha. Crop areas were damaged due to elephant attacks mostly in forests and forest adjacent villages /towns of the State. Even 18 people died, 177 injured and 35 cattle died due to other wild animal attacks during the year. The number of human deaths & injuries and house & crop area damage due to elephant attacks are increasing

over last few years. State Government had paid compensation amount of Rs.14.81 lakh to the victims of elephants and other wild animals' attacks and damages of houses & crop areas of the State during 2015-16. In order to minimize this conflict and to protect the life and property of human beings, the steps taken are:

- Day and night patrolling is being carried out in forest and wild life area. Steps have also been initiated for constituting a 63 member “special tiger protection force” for Similipal forests.
- For the conservation of marine turtles and other marine fauna in coastal districts, 5 off shore and 52 on shore camps have also been established during 2015-16.
- 3,692 hectares Mangrove plantations have been raised during 2000-01 to 2013-14 under Central Plan scheme. During 2015-16, 75 ha of Mangrove plantations have been taken up.

- An Elephant Corridor Development Management Plan in 14 elephant corridors has been implemented to reduce man-elephant conflict.
- Creation of 191 water bodies and renovation of 270 numbers to prevent death of wild animals due to water scarcity.
- Trench facing over 31 RKM and solar facing over 79 RKM have been created to prevent wild animals entering human habitations.
- Provisions of 158 forfeiting squads and modern forfeiting tools have been made in order to prevent fire incidences.

#### **3.4.14 Anti-Encroachment and Poaching Measures**

Like elsewhere, encroachment and poaching remain a threat to wildlife in the State. The State Government has taken several steps to address these problems. Some such measures taken up during 2015-16 are as follows:

- For conservation of threatened marine turtles and other marine fauna in coastal districts 5 off shore and 52 on shore camps have been established.
- To provide safety to migratory birds, protection camps have been set up comprising villagers, volunteers and wildlife officials in and around Chilika Lake.
- Special Tiger Protection Force (STPF), deployment of 63 Forest Guards made for protection of Similipal and Satkosia tiger reserves respectively.
- 467 wildlife offence cases were booked, out of which 280 cases were found undetected. One hundred eighty seven (187) cases were filed in the Court and 390

offenders were arrested and forwarded to the court.

- 349 Anti Poaching squads have been deployed at strategic locations for prevention of poaching to wild animals.

#### **3.4.15 Environment and Pollution Control**

##### **Policy Initiatives**

Protecting environment and maintaining ecological stability are the most challenging issues facing almost all regions of the world. Major policy initiatives and actions undertaken by the State in this regard are summarised below.

##### **State Pollution Control Board (SPCB)**

The SPCB functions under the administrative control of the State Forest and Environment Department and ensures the implementation of the Environmental Acts, particularly the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986. In addition, the Board implements the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008; the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989; the Bio-medical waste (Management and Handling) Rules 1988, the Batteries (Management & Handling) Rules, 2001 and the plastic waste (Management & Handling) Rules 2011, the e-waste (Management & Handling) Rule 2011, other pollution controlling rules and regulations. The achievements of SPCB during 2015-16 are given below:

- Granted consent with stipulation of appropriate pollution control measures to 893 industries, hotels, and brick kilns etc. and also provided consent to operate to

2,856 industries, mines, hotels, mineral processing units etc.

- Issued 314 show cause notices, 324 refusals, and 197 closure directions to defaulting units.
- Public hearings have been conducted for 14 major industrial/ mining/ development projects which require environmental clearance from Government of India.
- Waste water samples from 3378 industries, samples from 1365 stack emissions, 2556 ambient air samples and 75 solid waste samples from different industrial premises have been collected and analysed.
- 237 hazardous waste generating units have been granted authorization under the hazardous waste Rule 2008, for collection, storage, treatment and disposal of hazardous wastes.
- The Board has granted authorization to 556 health care establishments under provision of the Bio- medical (Management and handling) Rule, 1998 and also issued show cause notices to 86 units for inadequate management of Bio-medical wastes.
- Under the municipal solid waste (M&H) Rules 2000, authorization granted to 32 number of ULBs, Eleven number (11) of notices have been issued to the ULBs for the noncompliance of the above rule.
- 194 cases were filed / counter filed. 52 cases have been disposed.
- Awareness programme conducted by the Board on World Environment Day, International, Coastal Clean –up Day and National Pollution Prevention Day to create awareness on environmental protection among public.

### **The Odisha State Coastal Zone Management Authority**

Ministry of Environment & Forests, Government of India have constituted Odisha Coastal Zone Management Authority(OCZMA) under the provision of Environment Protection Act, 1986 for protecting and improving the quality of coastal environment and preventing, abating and controlling environment pollution on the coastal areas. The district level coastal zone monitoring committee for all coastal districts have been constituted in order to enforce and monitor the coastal activities as envisaged in CRZ notification.

### **Centre for Environmental Studies (CES)**

This is a registered society, whose aim is to promote environmental awareness in the State. The institute functions as regional resource agency for the National Environment Awareness Campaign (NEAC) and a nodal agency for the National Green Crops Programme. During 2015-16, CES organised the World Environmental Day and also an eco-model exhibition on the theme of WED-2015. 64 models from eco-clubs of different districts participated in it. CES is also the State Nodal Agent for National Green Cards (NGC) programme of Government of India.

### **Chilika Development Authority (CDA)**

Chilika is one of the important spot of biodiversity. It shelters a number of endangered species and migratory birds. The highly productive eco-system with its rich fishery resources sustains the livelihood of more than 0.2 million fisher folk living in and around the lagoon. Some of the important ongoing restoration activities taken up during 2015-16 include (i) Water exchange and salinity gradient of de-siltation in Chilika Lake, (ii) Bio diversity conservation and wise



use of natural resources, (iii) Fishery resource development, (iv) Strengthening of wetland research and training centre, (v) Management of Ansupa lake etc. .

#### **3.4.16 Climate Change Action Plan**

Odisha was one of the first states that formulated Climate Change Action Plan, through a comprehensive consultative process way back in 2010. The State Government is implementing Climate Change Action Plan to combat the challenges due to climate change. Forest & Environment Department is the Nodal Department for coordinating the implementation of various activities envisaged under State Climate Change Action Plan. A Climate Change Cell has been constituted for interacting with other departments, stakeholders and external agencies for implementation of the key & prioritized activities and take stock of the progress made in implementation of State Action Plan on Climate Change.

#### **3.4.17 Awards**

The State Government have awarded 238 Prakruti Mitra 2015-16 during the eco model exhibition on World Environment Day 2015, in order to encourage environmental protection, in which 64 eco clubs of the State participated. State Forestry Awards are conferred, on the occasion of “World Forestry Day” every year, for outstanding work in afforestation and plantation activities to Gram-panchayats, educational institutes and individual students. Besides, these awards are also given to Forest staff every year for their meritorious work in the field of Forest protection, afforestation, Kendu leaf operation etc. “Biju Pattnaik award for wild life conservation”, is being given for outstanding contribution in the field of wildlife conservation.

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# 4

## The Industry Sector

*The industry-led economy of Odisha is quite visible. Manufacturing and mining sectors emerged to contribute sizeable 18.27 percent & 7.36 percent share to GSDP of Odisha respectively in 2016-17 from a meagre 1 percent share each in 1950s. The shift was required for effective mobilization of natural and human resources; larger employment generation, augmentation of domestic supply and sustainable export promotion for Odisha. State policies, reforms, investment decisions, resource stock, demand-supply characteristics, institutional mechanisms etc showed the way to 'advantage industry' in Odisha over the decades. Series of revised and new orientation IPRs between 1980 & 2015; post economic reforms in 1990s; rise in domestic driven demand for industrial products; favourable investment destination for outside State large industrial houses due to rich stock of minerals, water and energy resources and State's policy decisions etc steered the industrialization process in Odisha. The State Government makes viable strategies to make industry sector efficient & competitive with the accelerated support of technological, infrastructural, institutional & entrepreneurial skill development. This would enable Odisha State to compete with national domestic as well as capture international markets on its industrial products. Industrialization is crucial not only for income redistribution but also for people's attitude towards self-reliance etc. The new regime of national level industrial reform measures such as liberalized mechanisms for Ease of doing business; Make in India programme; E-Biz project by launching of Government to Business (G2B) portal; new Ministry of Skill Development & Entrepreneurship; Streamlining of environment & forest clearances and labour sector reform through new Shram Suvidha portal etc. expect to instill confidence among business community & boost up industrial growth in the State.*

## Introduction

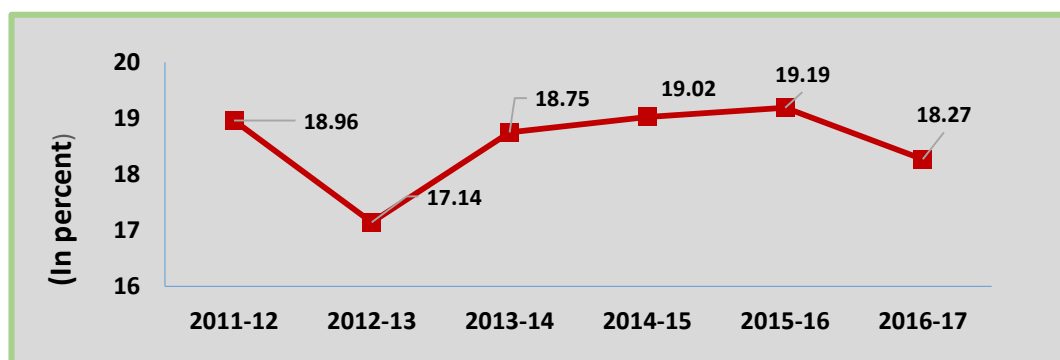
Industrial development is one of the components of economic development of the State for which strategic initiatives are being taken by the State Govt. to maximize the value addition, opportunities for employment generation and revenue augmentation. The Government has taken several proactive measures/initiatives to create a vibrant industrial sector with the enactment of important policies such as Industrial Policy Resolution-2015 & MSMED policy 2015. The aim is to ensure broad base industrial growth and generate sustainable employment. Manufacturing, Mining Quarrying sub sectors play the decisive role in the growth trajectory of and industry sector in Odisha. The average sectoral (both sub sectors together) share and growth rate to GSDP in industry sector in Odisha between 2011-12 and 2016-17 remain 39.20 percent and 5.65 percent respectively. The metal based manufacturing shares 66 percent of GVA of manufacturing sub sector. The industry sector becomes the employment provider for more than 12 lakh persons (both skilled & unskilled) in the State. The strong institutional mechanisms in PSE's, IPICOL, IDCO, KVIB, Cooperatives, etc. help in the good governance, production, management, operation & marketing of

industrial products. The mining sector activities rebounded strongly during 2016-17 overtaking the disruption in mining activities in recent past years. Rightly, Odisha became the leading favorable investment destination for outside state key industrial players due to the advantages ingrained in the rich mineral reserves, high industrial growth trajectory, effective single window system, competitive power tariff, political will & stability, availability of industrial manpower and road & communication development to make Odisha the eastern gateway to industrial power. This chapter discusses in detail the manufacturing and mining & quarrying sub sectors as the key components of the industrial sector of Odisha.

### 4.1 Manufacturing

Proper management of good governance and eco system leads to sustainable growth of manufacturing sector. The gross value added (GVA) of manufacturing sector in Odisha was about Rs 63695 crore in 2016-17 at current prices sharing 18.27 percent of GSDP of the State. The sector grew by 6.27 percent in 2016-17 over 2015-16 at constant prices (2011-12 base). Figures 4.1 & 4.2 demonstrate the percentage share and growth rate of manufacturing sector to GSDP of Odisha.

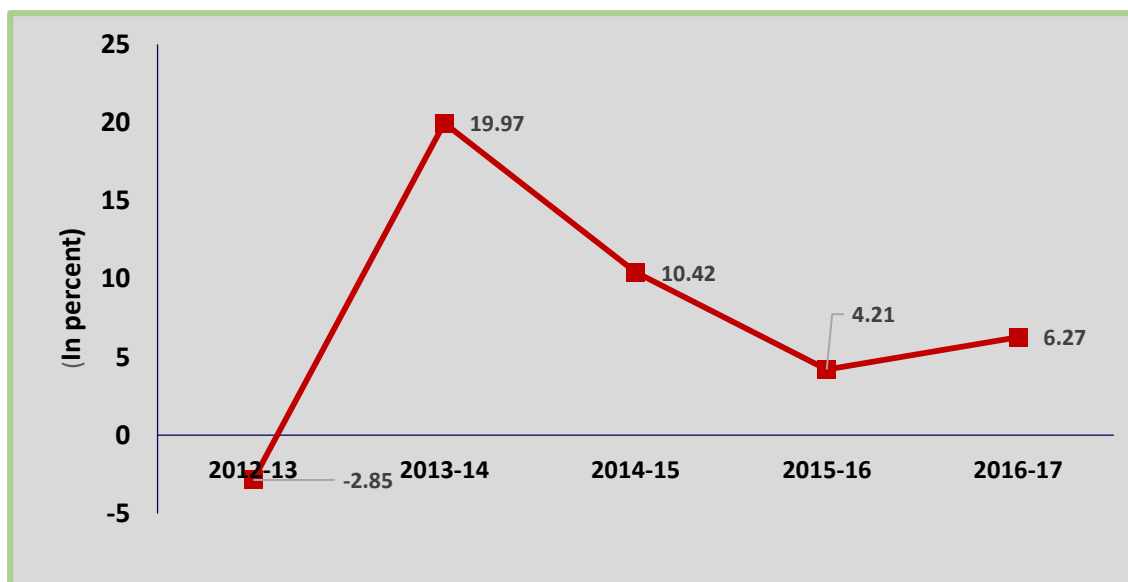
#### Trend of percentage share of manufacturing to GSDP of Odisha at current prices (2011-12 base)



[Figure 4.1]

Source: State Income Division, DE&S, Odisha

## Trend of real growth rate of manufacturing sub sector in Odisha at 2011-12 prices



[Figure 4.2]

Source : State Income Division, DE&S, Odisha

Manufacturing of basic iron & steel and nonferrous metals categories alone contribute around 72 percent of total GVA of Odisha. This is in commensurate with the rich stock of major minerals in the State. Manufacturing of non-metallic mineral products, food & non food industrial products like paper, wood, textiles, apparels, petroleum, chemicals,

machineries, recycling of wastes, plastics, transport equipments, pharmaceuticals categories etc. contributes around 28 percent of GSDP of Odisha. Table 4.1 records the number of registered factories, total employment, and value of outputs, value of inputs and net value added in Odisha.

#### Number of Registered Factories, Value of Output and Value Added by the Organized Manufacturing Sector

Year	Total no. of registered factories	Reported	Total employment (number)	Value of output (Rs. in cr.)	Value of input (Rs. in cr.)	Value of depreciation (Rs. in cr.)	Net value added by manufacture (Rs.in crore)
2009-10	3243	1980	227525	65662.34	47712.68	3149.92	14799.74
2010-11	3375	2482	282,860	92147.54	70697.89	4512.28	16931.37
2011-12	3609	2486	284637	115419.15	91212.09	6002.30	18204.76
2012-13	3681	2854	263651	112618.97	88012.45	6665.18	17941.34
2013-14	3703	2714	260771	122379.46	93036.58	8003.07	21339.81

[Table 4.1]

Source: Collected by ASI Dvn. E&S from CSO GoI

#### 4.1.1 Large Scale Industries

With privileged destination of industrial investment and abundant mineral resources,

Odisha promotes the large and medium industries not only for value additions, but also for larger employment and revenue

generation for the State. As on March 2016, Odisha had 252 numbers of large & medium industries (213 large industries & 39 medium industries) operating in 22 districts with a total investment of Rs 92786.94 crore and 1.18 lakh persons employment creation. 162 units of large (147) and medium (15) industries in the State belong to engineering and metal based industries category with a total investment of Rs 78200.27 crore. Odisha also have 31 units of glass and ceramic industries, 18 chemical & allied industries, 15 number of food and allied industries and 26 are other units in large & medium industries categories. The State has become a promising industrial hub for the establishment of good number of large and medium industries, mostly on basic metals & non ferrous metals. This has enabled the State Government to sign MoUs with as many as 88 reputed investors across various sectors like steel, power, cement, alumina & aluminum &, auto ancillary, petrochemicals and other downstream industries with a proposed investment of Rs.5,30,724.73 crore. So far, 33 steel projects, 3 power projects, 2 alumina/ aluminum projects and one each from cement & auto ancillary projects have gone into production. These industries are expected to generate employment for more than 89 thousands persons.

#### **4.1.2 Core Industries in Odisha**

##### **Steel**

Odisha shares 33 percent of total Iron ore reserves of India and had about 10 percent of the total steel production capacity of the country. Rourkela Steel Plant (RSP) and Nilachal Ispat Nigam Limited (NINL) are the two PSUs in Odisha. There are seven major private sector steel plants in the State which includes, Jindal, Tata, Essar, Bhusan Power and Steel, Sterlite Iron and Steel, Welspun Power & Steel, Uttam Galva Steel, etc. The

mega corporate Tata Steel is setting up 6 MTPA Integrated Steel Plants at Kalinga Nagar in Jajpur district of Odisha at a project cost of Rs 431.5 billion. The project will be completed in two phases, each phase having installed capacity of 3 MTPA. The 1st phase work of 3MTPA of Tata Steel at Kalinganagar has been completed and started its production. The policy of value additions, mass employment generation and welfare oriented revenue collection enabled the State Government of Odisha to have 49 numbers of MoUs with different national & international steel promoters companies for establishment of mega steel plants in the State with a production target of 77.16 MT and involving investment of over Rs. 213,969 crore. Of these 49 MoUs, 32 projects & one pellet project have started partial production with an investment of Rs.120,557 crore, these industries have provided/accommodated direct employment to about 28 thousands persons and indirect employment to 60 thousands persons. After withdrawal of M/s Arcelor Mittal & POSCO 47 numbers of MoUs remain with a depleted production target of 53.12 MTPA. The State Government have approved the policy for long term linkage of iron ore, chrome ore and other minerals to the MoUs signed steel plant companies of Odisha through OMC. The State Government has collaborated with Ministry of Steels, GoI to upgrade Biju Pattnaik National Steel Institute, to Centre for Excellence; and to establish Ultra Mega Steel projects through NMDC (CPSU).

##### **Aluminum**

Odisha has 52 percent of bauxite reserve and produces 37 percent of total bauxite production in India. Estimated bauxite reserves of the country stand at 5930 lakh tonnes Bauxite is the basic raw material for aluminum production. Four major Indian

Primary Aluminum Industry i.e. National Aluminum Company Limited (NALCO), BALCO, HINDALCO Industries and the

Vedanta LTD, with a total installed smelting capacity of about 29lakh tones. Production of above industries is given in Table 4.2.

### Production of Aluminium

(unit : lakh mt)

Name of the company	Cumulative Production target	Cumulative production as on March 2016
NALCO	3.74	3.72
BALCO	5.18	3.31
HINDALCO	4.05	4.09
VEDANTA LTD.	5.46	5.16
<b>TOTAL</b>	<b>18.43</b>	<b>16.28</b>

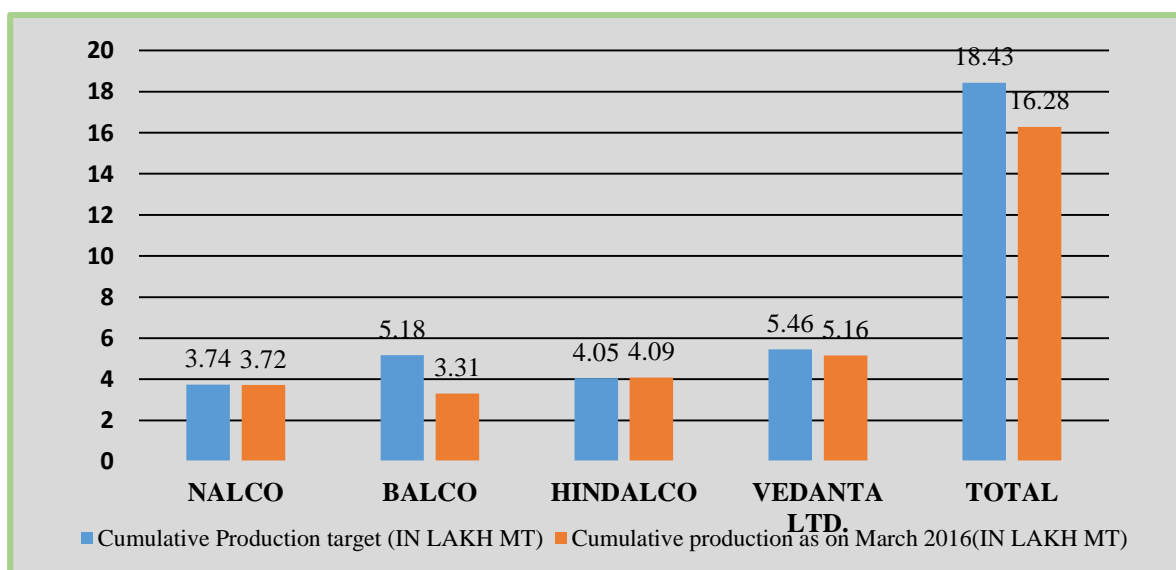
[Table 4.2]

Source: Monthly Summary Report, Ministry of Mines, March, 2016

The present capacity of alumina refinery of National Aluminums Company Limited (NALCO) is 22.75 lakh tonnes per annum. The alumina refinery is located at Damanjodi, Odisha. NALCO has planned to set up a 0.5 MTPA Smelter and 1050 MW Power Plant in Sundargarh district in Odisha at an estimated investment of Rs 19,000 crore. It plans for establishment of approx. 14 MW Wind Power Project in mined out area of Damanjodi with an estimated investment of Rs.82 Crore. The Company has taken a major green initiative and commissioned 260 KWp roof-top solar systems in its Corporate Office building at

Bhubaneswar. It also plans to install about 2 MW rooftop and ground mounted solar power project at NALCO Research and Technology Centre (NRTC) campus at Bhubaneswar. To promote Downstream and Ancillary Industries that would increase value addition within the State, the Company has committed 50,000 tonnes of hot metal to the Angul Aluminum Park, which has been established in Joint Venture (JV) mode with IDCO. The total domestic production of aluminum metal has increased from 16 lakh tonnes (2014-15) to 16.30lakh tones during 2015-16. Figure 4.3 shows trend of aluminum production in India.

### Aluminum production Target and Production by Major Plants, 2015-16



[Figure 4.3]

Source: Monthly Summary Report, Ministry report of mines March 2016

### 4.1.3 Micro, Small and Medium Enterprises (MSME)

The Directorate of Industries, Odisha is functioning under the administrative control of MSME Department. It is looking after promotion of MSMEs including Khadi and Village Industries, Coir Industries and Salt Industries in the State. Besides PMEGP (Prime Minister's Employment Generation Programme) is also implemented. Growth of MSME sector is being emphasized not only because of its potential for generation of employment opportunities but also for its contribution to the output of the State. Government of Odisha aims to create adequate space for MSME development in the State over the years through various fiscal and non-fiscal incentives under IPRs including IPR 2015; MSME Development Policy-2015. State Govt. has introduced the single window clearance system-a three tier mechanism to

attract industrial ventures through expeditious clearance at a single contact point. Downstream industries have been categorized as "Thrust Sector". Further, cluster development approach is being adopted for enhancing the competitiveness of potential sectors.

MSME sector shows increasing trend over years both in number of units, investment and employment generation. During 2015-16 financial year, the MSME sector in Odisha has achieved a record growth with 53,920 units gone into production with an investment of Rs 2679.64 crore and employment generation of 1.67 lakh persons. Details are given in Table 4.3. During last 5 years between 2011-12 & 2015-16, 102231 MSME units were gone into production with a total investment of Rs. 6549.92 crore and employment generation of 3.63 lakh persons in the State.

#### MSME Industries in Odisha

Year	MSME units setup (cumulative)	SSI/MSME units setup during the year	Investment made (Rs. in Crore)	Employment generated (persons)
2011-12	117361	5505	500.73	30387
2012-13	123292	5931	432.90	27104
2013-14	130301	7009	669.41	32136
2014-15	160167	29866	2267.24	107011
2015-16	214087	53920	2679.64	166731

Table 4.3]

Source: Director of Industries, Odisha

By the end of 2015-16, 2.14 lakh numbers of MSME units were operating in Odisha with an investment of Rs.10585.90 crore and

employment generation of 10.12 lakh persons. The sector wise cumulative data is given in Table 4.4

#### Sector-wise MSME Units in Odisha by the end of 2015-16

Category	No. of units setup	Investment (Rs. in crore)	Employment (persons)
Food & Allied	31662	1850.15	164157
Chemical & Allied	3485	289.52	25686
Electrical & Electronics	1549	86.85	8801
Engineering & Metal Based	15311	1108.77	107003

Category	No. of units setup	Investment (Rs. in crore)	Employment (persons)
Forest & Wood based	1468	153.79	55152
Glass & Ceramics	9867	725.07	146757
Livestock & Leather	576	13.77	2964
Paper & Paper Products	3603	161.28	18986
Rubber & Plastics	1976	273.92	12135
Textiles	12861	286.30	66558
Misc. Manufacturing	11819	51043	52460
Repairing & Services	110910	5126.05	351561
<b>Total</b>	<b>214087</b>	<b>10585.90</b>	<b>1012220</b>

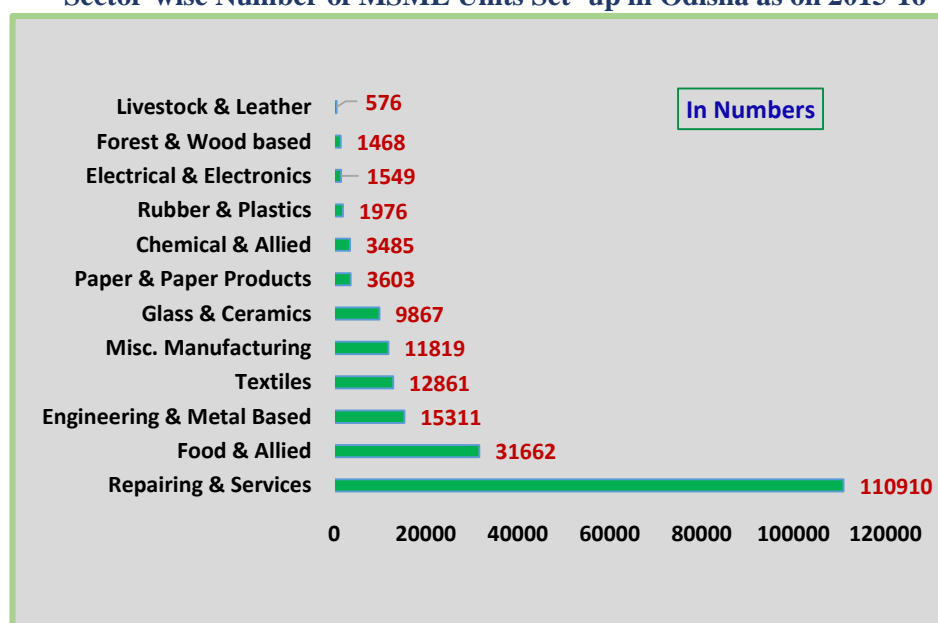
[Table 4.4]

Source: Director of Industries, Odisha

It is observed that maximum number of MSME units were gone into production in Sundargarh district (4524nos.) followed by Cuttack (3055 nos.) Sambalpur (3002nos.), Ganjam (2907nos.) and Khurda (2826 nos.)

etc. during 2015-16. The district wise breakup of MSME with employment generation is given in Annexure 4.1. Figure 4.4 shows the sector wise breakup MSME units during 2015-16.

**Sector-wise Number of MSME Units Set -up in Odisha as on 2015-16**



[Figure 4.4]

Source: Director of Industries, Odisha

Due to issues and problems areas related to literacy, skills, opportunities, marketing, credit facility etc., majority of youth entrepreneurs in Odisha prefer to engage themselves in repairing and services units under MSME sector. Figure 4.4 reveals that the repairing

and services sub sector share 52 percent of units with 48 percent share of investment and 35 percent of employment under MSME sector in Odisha. The food and allied sectors manufacturing units share 15 percent of units, 18 percent of investment and 16 percent of



employment generation in MSME sector. The Glass and Ceramics sub- sector is 15 percent of total employment in MSME sector.

#### 4.1.4 Salt Industry

Odisha is bestowed with a long coast line of about 480 kms which runs along with West of Bay of Bengal. At present, salt is manufactured in our State in coastal districts of Ganjam, Puri and Balasore. There are 3 nos.

of registered working Co-operative societies engaged in salt Production along with 39 licenses in Private Sector over an area of Ac. 5137.248. Financial Assistance is provided for improvement of salt field, infrastructure facilities like construction of storage godown, purchase of pump set, sinking of bore well for getting sub-soil brine for augmenting salt production etc. Details of Salt Production are given in Table 4.5.

#### Salt Production (Sector Wise) with Value and Employment Generation in Odisha

(Area in Acre and Production in MT)

Year	Govt. Sector		Co-op Sector		Private Sector		Total		Value (Rs.in crore)	Employment
	Area	Production	Area	Production	Area	Production	Area	Production		
2010	-	-	1324	3354	3813	11262	5137	14616	1.75	4500
2011	-	-	1324	1690	3813	5710	5137	7400	1.11	350
2012	-	-	1324	7216	3813	26729	5137	33945	4.07	4200
2013	-	-	-	3060	-	7700	5137	19327	-	1600
2014	-	-	-	3557	-	6490	5137	10047	-	1585
2015 (upto Dec 2015)	-	-	-	-	-	-	5137	442	-	-

[Table 4.5]

Source: Director of Industries, Odisha

Besides, for undertaking developmental and labour welfare works, centrally sponsored schemes are being implemented under joint venture of Government of India and State Government. Under this Programme, construction of school building, provision of scholarships to the meritorious students etc. have been taken up to extend educational facilities to the children of salt workers. Health centers with medical facilities have been provided to salt worker for improvement of health. Under the scheme 'Namak Majdoor

Awaas Yojana, 244 dwelling units have been constructed for providing shelters to the bonafide salt workers. Drinking water facilities are also being provided in the nearby vicinity of the salt producing area.

#### 4.1.5 Coir Industry

There is ample scope for development of coir Industries in Odisha having a Coast line of 480 Kms. The status of Coir Industries for the year 2015-16 is given in the following table.

### Status of Coir Industry

Sl. No	Description	Unit	2015-16
1	<b>Coconut Cultivation</b>	Hectare	51035
2	<b>Coconut production</b>	lakh	2756
3	<b>Coir Fiber production</b>	MT	4140
4	<b>Government Training Centre</b>		
	State Level 1 year advanced course		1
	District Level 6 months Artisan Course.		3
	Annual intake capacity		150
	No. of trained.		1985
5	<b>Cooperative Societies</b>		
	No. of working Societies		13
	Membership		6362
6	<b>Coir Cluster Development</b>		
	No. of Coir cluster		70
	SHG promoted.		270
	Artisans under SHG fold		4049
7	<b>SSI units</b>	Number	201
8	<b>Micro Enterprises.</b>	Number	685
9	<b>Total Employment</b>	Number	11150
10	<b>Production of coir fiber, Coir goods per annum including rubberized coir</b>	Rs. in Crore	102.07
11	<b>Field Training Centers</b>		
	F.T.Cs.	Number	25
	Trained personals	Number	500
12	<b>Artisans deputed on exposure visit</b>	Number	407
13	<b>Infrastructure assistance provided to Cooperative Societies</b>	Number	08
14	<b>Infrastructure assistance provided to SHGs</b>	Number	23

[Table 4. 6]

Source: MSME Activity Report 2015-16, Govt. of Odisha

#### 4.1.6 Handicrafts and Cottage Industry

Odisha has acquired incomparable fame for its cottage and handicrafts products. People of the state have achieved an excellent legacy in preparing these products. The state in fact is considered as the land of handicrafts which is an indispensable part of our cultural heritage. As many as 50 different crafts are practiced by about 1.30 lakh artisans, dispersed throughout the State. The handicrafts sector constitutes a

significant segment of the decentralized sector of the State's economy. It provides employment to lakhs of artisans in rural and urban areas especially in the weaker sections of our society with less capital investment. Many artisans of the State have been honoured with National Awards including Padma Awards in different crafts. During 2015-16, 2278 cottage industries have been established and gone into production with an investment of Rs.8.44 crore and providing employment to 3,867 persons (Table 4.7).

### Growth of Handicraft and Cottage Industry in Odisha

Year	No. of units established during the year	Investment (Rs. In Crore)	Employment Generated (no. of persons)
2011-12	7293	30.31	9187
2012-13	1027	2.96	1393
2013-14	1204	3.45	1507
2014-15	1596	7.15	1952
2015-16	2278	8.44	3867

[Table 4.7]

Source: Director of Handicrafts and Cottage Industries, Odisha.

It is realized that with development and modernization, there has been a transformation in peoples' choice from the products of the cottage industries to alternative products available from other sources. In order to entice this issue, State Government have taken various measures for strengthening infrastructure and financial base of this sector by assisting Co-operatives and artisans to intensify production and sale. During 2015-16, bank credit amounting to Rs.70 lakh has been released to 808 numbers of artisans assisted under Rehabilitation of Handicraft and Artisans (RHA) scheme. Besides, 54 clusters covering 1710 artisans in 114 SHGs have been assisted under craft village scheme. A new scheme "Modernization & Technologies Up-gradation of Handicraft Industries" is being implemented in the state since 2012-13 to enhance the productivity and to facilitate mass production in handicraft sector. Under this scheme, 60 numbers of entrepreneurs have availed subsidy amounting to Rs, 90.00 lakh during 2015-16. Marketing assistance is being provided to co-operative/ SHGs/ individual artisans through exhibitions organized inside as well as outside the state. During 2015-16 about 2380 artisans participated in more than 84 different exhibitions / Melas including 51 district level and 5 state level exhibitions with a sales turnover of Rs.1740.98 lakh. The

Departmental Training Centers established at State / District level play an important role in creating new generation craft persons with adequate skill. Under this training Programme, 1330 candidates have completed the training and 296 candidates are under training during 2015-16. For promotion of handicraft Industries a scheme "Construction of Work shed-cum-Housing for Handicraft Artisans" was introduced during 2013-14, to provide a hygienic environment, well ventilated and naturally lighted working place to artisan's families to enhance their productivity. Under this scheme during 2015-16, 64 nos. of work-sheds have been sanctioned against a target of 89 in 31 District Industries Centers (DICs) of Odisha.

The scheme "Distribution of Solar Lanterns to Artisans Households" has been introduced for artisans to work for more time and increase productivity for their sustained livelihood. During 2015-16, total 14137 numbers of Solar Lanterns have been distributed to artisan households against the target 9000 with a budget provision of Rs.136.17 lakhs. During 2015-16, it was targeted to provide insurance coverage to 14000 handicraft artisans with premium amount placed with LIC and 15872 handicraft artisans have been covered. For revival and strengthening 28 handicraft cooperative societies during 2015-16, financial support of Rs.75 lakh has been released to 13 no. of DICs. Apart from 1-year

Certificate Course in Craft Design at SIDAC and a 4-month design led training programme at Balasore, 5 nos. of Design Development Programmes involving 125 artisans have been conducted in districts through SIDAC and concerned DICs/RICs. During inauguration of 10th Toshali National Crafts Mela on 15.12.2015, four eminent handicraft artisans and nine artisans have been honoured with Life Time Achievement Award and State Award respectively.

#### **4.1.7 Handloom and Textile Industry**

##### **Handloom Sector**

Handloom sector, next to the agriculture provides massive employment to the rural artisans. Handloom occupies a significant place in preserving the State's heritage and culture. The handloom products of Odisha have received national and international recognition for highly artistic designs, craftsmanship and durability of their products. As per the census conducted in 2009-10, there were 40,683 weaver households having 43,652 looms, with a population of 192,339 weavers in the State. There were 1,140 Primary Weavers Co-operative Societies (PWCS) by the end of 2015-16 of which 530 were working PWCS, 33 nos. are dormant and 577 were under liquidation. During 2015-16, out of 38874 looms in working PWCS, 22765 were working looms which produced 131.02 lakh sq. mtrs of handloom products valued at Rs.246.97 crore. During 2015-16 about 126.95 lakh sq. mtrs of handloom products valued at Rs.240.02 crore were sold of which 22.11 lakh sq. mtrs were silk products valued at Rs.101.06 crore. The productivity per loom per annum during 2015-16 stood at 576 sq. mtrs in the Co-operative fold as against 553 sq. mtrs in 2014-15 while the average earning per annum in the Co-operative fold increased from Rs. 37546 to Rs.43894 during the same period.

The State Government have implemented some major developmental and welfare schemes to improve the socio-economic conditions of weavers such as Promotion of handloom industries, Integrated Handloom Development Scheme, Cluster Development Programme, Group Approach, Marketing and Export Promotion Scheme, Health Insurance Scheme, and Mahatma Gandhi Bunakar Bima Yojana. Besides, weavers are being provided with work shed, skill upgradation training, and weaver's photo identity card. Technology, upgradation, construction of common facility centre, exposure visits, organisation of exhibitions, design interventions and publicity have infused new spirit in the clusters. Sales of handloom products have been on an upswing and new inroads are being made in penetrating the national and international markets. The "Indian Institute of Handloom Technology" has been set up and functioning in Bargarh. A special project "Design Reference for Collection of Odisha Handloom" is under implementation with involvement to establish a sustainable market linkage with buyers of inside and outside the country. Similarly, "Odisha Artisans and weavers Ltd." have been set up in association with a leading retail brand like "fab India" to provide durable and continuous business in the sector. Government have taken positive steps for registration of Odisha "ikat" product under Geographical Indication (GI), to protect the weavers from competition in various fields. The State has liquidated Odisha State Power Looms Weavers Servicing Societies and transferred ten power looms to SPINFED, a semi-government organization. Steps have already been taken for registration of all the products stated above under GI.

### Sericulture Sector

The State has a rich traditional heritage of Tassar culture adopted mostly by tribal farmers concentrated in different 14 forest rich districts of the State. About 46,828 no's of SC/ST families are practicing Tassar culture in Odisha. During 2015-16 Tassar food saplings were planted in 15370 hectares of land and 20.14 lakh Dfls were produced. During the year, 1220.80 lakh reeling cocoons, 107.00 MT raw silk and 20 MT of silk waste were produced in the state. Sericulture is an agro-based industry, providing employment to the rural poor on a large scale. Eri rearing is traditionally cultivated in 15 districts. During

2015-16, castor plantation was made over 1405 acres with 2810 beneficiaries. During 2015-16 the production of cut cocoons was 8.90 M.T which was 10.22 M.T during 2014-15. The production of raw silk was 7.0 M.T during 2015-16. Mulberry sericulture is non-traditional in the state and is practiced in 12 districts. During 2015-16, mulberry area in the state was about 1460 acres and 25.94 MT of reeling cocoons, 3.00 MT raw silk and 0.30 MT of silk waste were produced in the state involving 1465 SC/ST farmers. The annual report is shown at Table 4.8 which provides a glimpse into the efforts put in and the output achieved in Sericulture sector.

#### Achievements of Tassar, Mulberry and Eri Sectors

Activities	2014-15	2015-16
<b>Tassar Sector</b>		
Tassar Food Plants (Ha)	13835	15370
Production of Dfls (lakh nos.)	17.40	20.14
Procurement of Dfls (lakh nos.)	4.70	5.06
Consumption of Dfls (lakh nos.)	22.10	25.20
Production of reeling cocoons (lakh nos.)	1009.12	1220.80
Production of raw silk(M.T.)	88.30	107.00
Production of silk waste(M.T.)	17.00	20.00
No. of farmers covered(Nos.)	13919	15486
<b>Mulberry Sector</b>		
Mulberry area in Acre	1157	1460
Procurement of Dfls (lakh nos.)	1.32	1.34
Consumption of Dfls(lakh nos.)	1.32	1.34
Production of reeling cocoons (lakh nos.)	25.50	25.94
Production of raw silk(M.T.)	3.18	3.00
Production of silk waste (M.T.)	0.318	0.30
No. of farmers covered (Nos.)	1209	1465
<b>Eri Sector</b>		
Existing Castor Plantation (Ac)	1345	1405
Consumption of Dfls (lakh nos.)	1.72	1.57
Production of cut cocoons M.T.)	10.22	8.90
Production of raw silk (M.T.)	7.00	7.00
No. of farmers covered (Nos.)	2690	2810

[Table 4.8]

Source: Director of Textile, Odisha

To support Sericulturists in tassar, eri and mulberry sector, several schemes under promotion of sericulture industry (state plan & state share of CSP) and CSS of Central Silk Board are under implementation. Under the scheme, the farmers are being provided with improved technology for High Yielding Variety food plant, HYV DFLs, Chawaki worms, Rearing houses, Rearing equipments, Grainage Houses, disinfectants and marketing support. Besides technology upgradation, exposure visit and trainings were carried out for farmers and private graineurs to improve the productivity.

#### 4.1.8 Prime Minister's Employment Generation Programme (PMEGP)

This centrally sponsored scheme provides credit-linked subsidy and aims at generating

employment opportunities through establishment of micro enterprises in rural and urban areas. During 2015-16 against the target of releasing Rs.62.82 crore in favour of 3141 units, 25380 applications were received and Rs.57.36 crore was sanctioned in favour of 2876 units. However, Rs.57.36 crore was released to 2876 units.

#### 4.1.9 Exports

During 2015-16, 31 SSI units have been registered with the Directorate of Export Promotion and Marketing, Odisha, and Rs 51.15 thousand have been collected towards registration fee. 11013 samples were tested in six Departmental testing laboratories and Rs. 51.40 lakh of testing fee was also collected. Table 4.9 shows the value of goods exported from 2009-10 to 2015-16.

**Value and Percentage of Goods Exported from Odisha to Foreign Countries from 2009-10 to 2015-16**

(Rs. in crore)

Item	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Metallurgical products	4561.77	4807.98	4806.68	5211.38	7677.49	10836.98	10814.08
%	35.93	28.12	29.66	49.08	40.88	62.92	62.34
Engineering, chemical & allied products	718.70	612.62	196.21	61.00	3531.21	3330.73	1294.67
%	5.66	3.58	1.21	0.57	18.80	19.34	7.46
Mineral products	5740.14	9836.84	9259.48	2427.57	3546.78	705.79	539.44
%	45.21	57.53	57.13	22.86	18.89	4.10	3.11
Agriculture and forest products	4.17	8.77	0.02	0.05	02.92	03.34	0.47
%	0.03	0.05	0.00	0.00	0.02	0.02	0.00
Marine products including Fish & shrimps products	446.80	541.47	521.34	747.30	1699.41	1771.86	1967.07
%	3.52	3.17	3.22	7.04	9.05	10.29	11.34
Handloom and textile products	19.43	28.96	0.02	0.01	10.64	84.09	18.10
%	0.15	0.17	0.00	0.00	0.06	0.49	0.10
Handicraft products	0.43	0.71	0.17	0.17	0.27	0.10	0.22
%	0.01	0.00	0.00	0.00	0.001	Neg.	0.00
Electronics	1198.84	1254.24	1414.78	2169.94	2300.46	476.12	2700.00

Item	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
%	9.44	7.34	8.73	20.44	12.25	2.76	15.57
Others (Computer software, Gems & Jewels, Service provider & pharmaceutical etc.)	6.15	7.29	8.64	0.02	10.93	14.53	12.43
%	0.05	0.04	0.05	0.00	0.06	0.08	0.07
Total	12696.43	17098.88	16207.35	10617.43	18785.45	17223.54	17346.48 (P)
%	100.00	100.00	100.00	100.00	100.00	100.00	100.00

[Table 4.9]

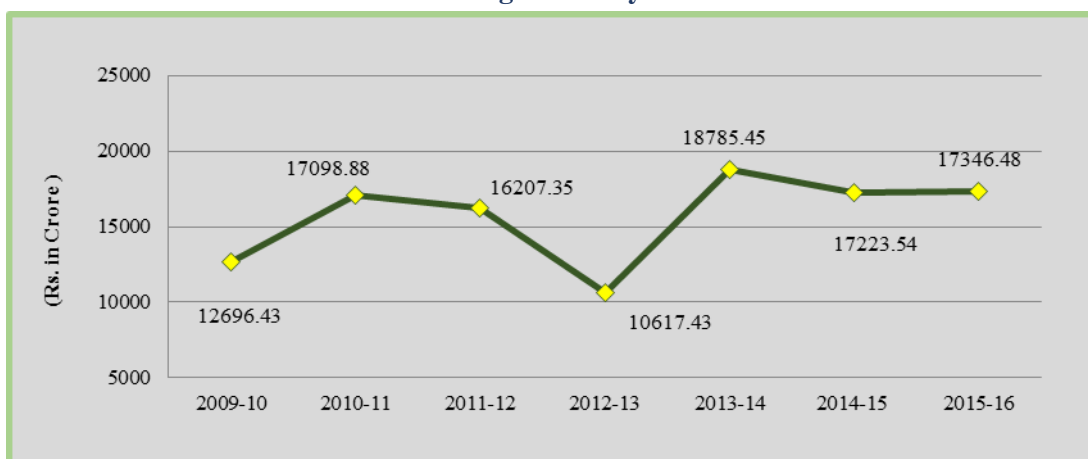
P: Provisional

Source: Director of Export Promotion and Marketing, Odisha

The Figure 4.5 indicates the trend of export of goods to the foreign countries from 2009-10 to 2015-16 while Figure 4.6 indicates the item wise percentage value of export during 2015-16. It is observed that metallurgical products,

Engineering/ Chemical & Allied Products and Electronics products constituted 62.34 percent, 7.46 percent and 15.57 percent of total exports respectively from Odisha.

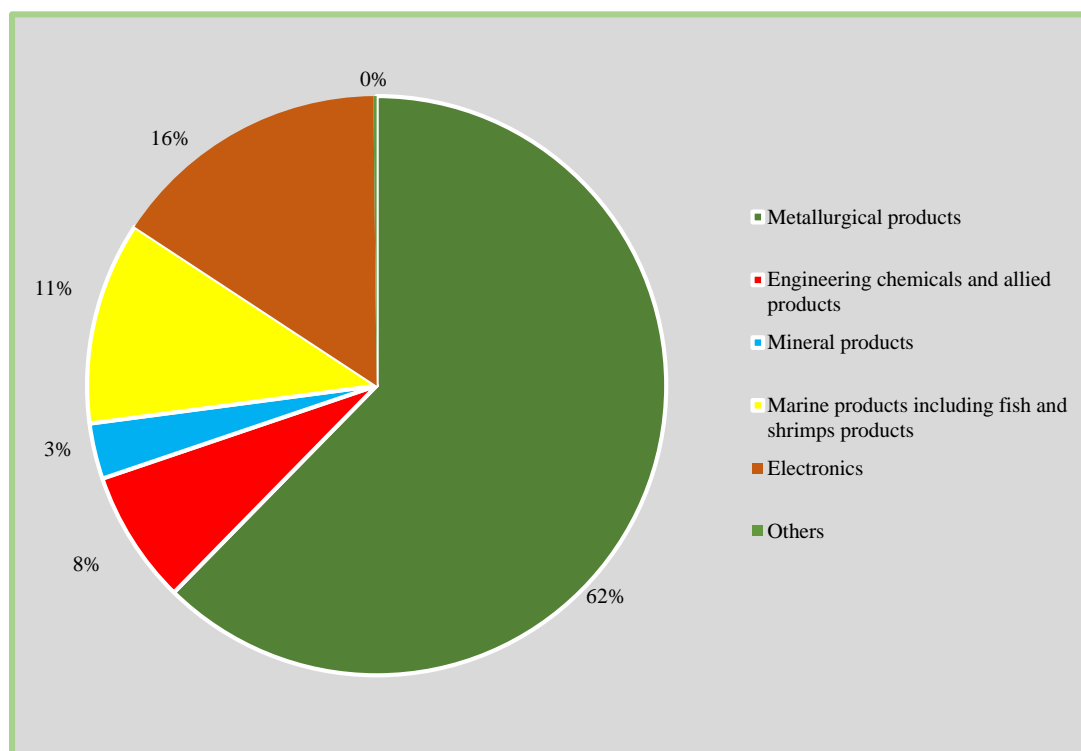
**Value (Rs. in crore) of Goods exported  
from Odisha to Foreign Country from 2009-10 to 2015-16**



[Figure 4.5]

Source: Director of Export Promotion and Marketing, Odisha

## Compositions of Exports (in Percentage) from Odisha, 2015-16



[Figure 4.6]

Source: Director of Export Promotion and Marketing, Odisha

The table 4.10 indicates the export composition in terms of values during 2015-16.

## Item-Wise Exports of Goods from Odisha, 2015-16

Sl. No.	Name of the Products	No of Countries to which Exported	Value in Rs. Crores
1	Metallurgical	40	10814.08
2	Engg./Chemical & Allied	.79	1294.67
3	Minerals	5	539.44
4	Agriculture & Forest	4	0.47
5	Marine	39	1967.07
6	Handloom	13	0.87
7	Handicraft	7	0.22
8	Textile	2	17.23
9	Pharmaceutical	3	02.31
10	Electronics & Software	6	2700.00
11	Gems and Jewellers	-	0.50
12	Service Providers	All foreign countries	09.62
	<b>Grand Total</b>		<b>17346.48 (P)</b>

[Table 4.10]

P- Provisional

Source: Director of E.P & M, Odisha.



#### 4.1.10 Policy Initiatives

##### Industrial Policy Resolution (IPR) 2015

The Industrial Policy Resolution 2015 has been formulated to create a conducive environment through an enabling Policy and regulatory framework to drive sustainable industrial growth in the State. The State is committed to simplify the processes and procedures and expedite project approvals and clearances. Priority sectors have been identified with additional incentives. Industries both existing and upcoming are expected to avail the benefits as per IPR 2015 and create employment opportunities, augment revenue in the State. The Policy focuses on providing quality industrial infrastructure, creation of a large land bank, financial assistance to the private sector for development of industrial infrastructure and sustainable environmental protection measures by the MSME Units. The emphasis of the policy is to make Odisha “a destination of choice” for industrial enterprises.

For faster industrial development in the State the IPR 2015 emphasizes on strengthening institutional & regulatory mechanisms. The three tier single window clearance system at State, Region & District level expects to maximize the triple objectives of value addition, employment generation and revenue augmentation through industrialization. IPICOL is the Technical Secretariat & Nodal Agency of Team Odisha and the State Level SWCA. The IPR 2015 offers wide range of proposals for social & urban infrastructure, HRD, labour reform, marketing support to MSME, revival of sick units, export promotion & monitoring plan etc. Besides improving existing industrial parks, estates & areas in the State, it aims to develop new industrial estates, parks, areas, growth centers by IDCO, OIIDC & PPP under a

comprehensive land zoning plan. Establishment of National investment & manufacturing Zones (NIMZ) at Kalinganagar, Dhamra & Gopalpur; Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) in Jagatsinghpur & Kendrapada districts and a SPV Paradeep investment development region limited shall add to the State industrial cluster remarkably.

##### MSME Development Policy-2015

Odisha MSME Development Policy-2015 aims to attract new investments and provide support to the existing enterprises and the frame work has been divided as Enabling, Supporting and Incentive frame work. The new IPR-2015 targets some of the fiscal incentives towards MSME's such as, providing land at concessional rates, interest subsidy, exemption of stamp duty, VAT reimbursement, assistance for technical knowhow and marketing supports and many more. The main emphasis of this new MSME policy is to make Odisha “a destination of choice” for MSME enterprises. The main objectives of this new policy are:-

- i. Enhance competitiveness of MSME sector.
- ii. Provide a conducive eco-system to attract and encourage new investments.
- iii. Provide opportunities to local entrepreneurial talents.
- iv. The growth of MSME all potential sectors of the economy and focused on sustainable industrial growth.
- v. Enhance the contribution of MSME's in manufacturing and services sector of the economy.
- vi. To achieve the above objectives some strategies have been designed such as

- vii. Single- Window facilitation cell.
- viii. Cluster development approach.
- ix. Facilitate setting up ancillary and downstream units of existing and upcoming large industries.
- x. Flow of credit and Industry institution linkage etc.

### **Special Economic Zone (SEZ) Policy 2015**

SEZ is specifically designated as a duty-free enclave and treated as a foreign territory for the purpose of trade operations, duties and tariffs. The prime objectives of SEZ is to stimulate more efficient use and value addition of local resources; attract investments; increase export of goods and services; develop world class infrastructure; create centers of excellence for manufacturing services and other economic activities; increase employment opportunities; improve the skills; facilitate transfer of technology and modern management skills to local enterprises; provide need-based incentive package to SEZ Developers etc. For Odisha, the SEZ approach offers a flexible strategy to expand its industrial and economic base and result in incremental employment opportunities. The SEZ in Odisha will be developed both by public and private sector developers individually or jointly. The Developer will plan, develop, finance, manage, market and maintain the Zones. The thrust areas of SEZ shall include sectors like IT, ITES, Biotechnology, electronic systems & manufacturing, automobiles & component manufacturing, engineering goods, textile & handlooms, agro based & marine products, ship repairing & building, gems & jewelry, petroleum & its products, pharmaceuticals, tourism & primary metal based downstream & ancillary industries etc.

### **Odisha Youth Innovation Fund (OYIF)**

Odisha Youth Innovation Fund (OYIF) aims to make Odisha a creative and innovative society & National leader in sustainable technology by scouting, spawning and sustaining innovations. It provides institutional support to innovation at grassroots level as well as outstanding traditional knowledge and to seek self reliance through competitive advantage of innovative based enterprises. The size of the fund shall be Rs 200 lakhs funded by the State Govt. and the Corporate houses including the cost of management of funds, publicity and documentation of the program. The implementing agency shall be Odisha Small Industries Corporation (OSIC) or "Youth Entrepreneurship Development Agency"(YEDA) as proposed in Odisha State Youth Policy 2013. The target group of OYIF shall be the entire mass of youth in the whole of the State of Odisha. The focus areas of OYIF include: Education & Life Skills, Skill Development, Entrepreneurship and Employment, Health & Wellbeing, Sports & Physical Education, Active Citizenship & Community Engagement, Environment, Sustainable use & Conservation, Heritage, Culture & Diversity, Gender Justice & Equality, Globalization & Technology.

### **Single Window Concept and Public-Private Partnerships (PPP)**

The Public-Private Partnership mode is emboldened in the State to mobilize the private sector efficiencies for the development of economic and quality infrastructure in the State. Some of the PPP projects that encourages value addition and employment creation are: (i) establishment of an Info Park in Bhubaneswar, (ii) up-gradation of industrial infrastructure at Kalinganagar and Industrial Complex through Odisha Industrial Infrastructure Development Corporation

(IDCO) and user industries, (iii) development of Haridaspur-Paradeep Rail Link jointly by Rail Vikas Nigam Limited and user industries, (iv) promotion of Special Economic Zones (SEZ) at different locations, (v) establishment of a Bio-Tech Park, and (vi) development of the second INFOCITY for establishment of IT industries in Bhubaneswar and for promotion of export oriented industrial units.

### **Odisha Food Processing Policy, 2013**

The Odisha Food Processing Policy, 2013 aims to create a dynamic environment for investments in the state for the promotion of food processing industries, for higher value addition and creation of employment opportunities. It is also beneficial for creation of necessary supply chain and infrastructure facilities in rural areas and encourage entrepreneurs to establish Food Parks and for setting up of food processing units on their own. The difficulties experienced for setting up small industries and the Food Processing Industry etc. have been taken care of by introduction of Single Window Mechanism laid down under Odisha Industries (Facilitation) Act, 2004 and 2005. MSME Department and IDCO have been looking into the development of infrastructural facilities like establishment of Mega Food Parks and Sea Food Parks to facilitate the growth of Food Processing Industries in the State. During 2015-16, 18 nos. of Food Processing enterprises were assisted with Grant-in-Aid to the tune of Rs 3.83 crore till January, 2016. Six designated Food Parks have been approved by the Ministry of Food Processing, GoI for concessional assistance by NABARD.

#### **4.1.11 Public Sector Enterprises (PSEs)**

Public Enterprises is the Nodal Department of State Enterprises. It renders services in all

functional areas of control and management in State Public Sector Enterprises, regulate industrial projects proposal, prescribe financial norms & model MOU, reviewing the progress of Memorandum of Understanding and make PSU reforms etc. At the end of 2015-16, there were 59 Public Sector Companies, of which 27 are defunct. The status of rest 32 companies is given in Annexure 4.2.

### **Privatization Policy**

The State Government as a matter of Policy have accepted the policy of selective privatization/ dis-investment of loss making public and co-operative enterprises operating in non-core sectors, with an objective to revive potentially viable loss making enterprises. The State Government have also identified a set of core enterprises which will continue to operate in the public sector as public utility services. Efforts are being taken up by the government to provide these enterprises with optimum managerial autonomy to run on sound commercial principles. During 2015-16, liquidation process of eight defunct PSEs was in progress. Besides, privatization of 12 public and cooperative enterprises is also in progress.

### **Memorandum of Understanding (MoUs) with State PSU**

A task force has been constituted in the Public Enterprises Department for monitoring and assessment of the achievements of the PSUs. For the Financial Year 2015-16, 25 nos. PSUs have signed MoUs. The task force will make half yearly or annual review of the achievements of the PSUs.

### **Categorization of PSUs**

The State Government has initiated the pioneering steps to categorize the PSEs. Considering the various parameters stipulated in the categorization frame work during 2011-12, 5 PSEs have been categorized as

Bronze, 7 PSEs as silver, and 4 PSEs as Gold. None of the PSEs have been qualified for platinum category. The process of categorization of PSEs would be an ongoing exercise with system of periodic review in every 2-3 years.

### **Computerization of accounting systems in different State PSUs**

Under the scheme, ten numbers of PSUs have been identified to computerize their accounts during the extended period of OSRFS from 2014-15 to 2018-19 and financial assistant to the tune of Rs. 28,02,251/- has been approved to six numbers of PSUs namely OAIC, OSCDC, APICOL, OSSC, OPDC and OSWC for procurement of need based hardware.

### **Voluntary Retirement scheme (VRS)**

Under the scheme, budgetary provision of Rs.30 crores has been made to implement the VRS by the individual state owned enterprises during the operating period of OSRFS for five years i.e. upto 2019.

### **Listing of PSUs on the Stock Exchange**

The State Government has been encouraging PSUs for their listing on the stock exchange. The Odisha Hydro Power Corporation (OHPC) has been authorized to take appropriate steps to get listed at the stock exchange. Necessary steps have also been taken for listing of Odisha Mining Corporation Ltd.

### **Social Safety Net Programme (SSNP)**

The Social Safety Net Programme (SSNP) is an important component of Odisha Public Enterprise Reform Programme (OPERP). It seeks to address the problem of job losses that are associated with enterprise reform such as privatization. The SSNP aims at minimizing the adverse impact of job loss by providing counseling, vocational training for new

livelihoods and redeployment assistance to workers. A Budgetary provision of 30.00 crore has been made for financial assistance to implement the VRS by the individual State Owned Enterprises during the operating period of OSRFS for five years, i.e. up to 02.12.2019, the financial assistance for VRS will be extended to those entities undertaking restructuring initiatives to improve operational efficiency and not for closing down the operations.

### **Cluster Development Programme**

Under Cluster Development Programme, 57 Micro & Small Enterprises have been identified. This scheme envisages development of enterprises in cluster mode, introduction of common facility centers and creation of Industrial Infrastructure. The solvent Extraction Plant in Rice Mill Cluster at Bargarh district has gone into production. The civil construction for testing Laboratory and Training Centre to CFC in pharmaceutical cluster at Cuttack – Bhubaneswar has been completed. The progress made so far is as follows:

- Diagnostic Study for 33 Cluster completed.
- 7 DSR approved for assistance under MSECDP.
- Proposal for 1 DSR submitted to GoI for approval.
- Soft interventions in 08 Clusters taken up.
- CFC in Rice Milling Cluster at Baragarh & adjoining area has been established & the Solvent Extraction Plant has been made operational with investment of Rs.489.89 lakhs.
- CFC in Cashew cluster at Ganjam is in the final stage.

- CFC has been approved for Cashew cluster at Berhampur, Puri for assistance under MSECDP.
- In-principle approval for CFC for Pharmaceutical Cluster at Cuttack Bhubaneswar accorded by Government of India for assistance under MSECDP.

#### 4.1.12 Major State-level Institutions

##### **Odisha Industrial Infrastructure Development Corporation (IDCO)**

IDCO is acting as the Nodal Agency for providing industrial infrastructure and land for industrial and infrastructure projects in the State. The Corporation is engaged in industrial infrastructure development work for rapid industrialization in the State. Industrial Estates and Industrial Areas IDCO has already developed 106 Industrial Estates/ Areas in different strategic locations. The cumulative position of construction/development and allotment of land/sheds in different Industrial Estates/Areas up to the year 2015-16 is as under:

- |                                  |          |
|----------------------------------|----------|
| i. No. of IEs/IAs                | 106      |
| ii. Gross area of I/Es& I/As     | Ac. 9601 |
| iii. Built up sheds              | 1553 Nos |
| iv. Sheds allotted               | 1482 Nos |
| v. Land allotted                 | Ac. 4952 |
| vi. Land available for allotment | Ac. 2218 |

Source: Report of IDCO, BBSR

##### **Industrial Promotion and Investment Corporation of Odisha Ltd. (IPICOL)**

As the State Level Nodal Agency, IPICOL have taken pro-active measures for Investment Promotion and Industrial Facilitation in the State. IPICOL have made relentless effort to convert Odisha to an industrially vibrant State and making it a favorite destination for

investors. The IPICOL has been able to attract a large number of investment proposals. The major activities of IPICOL after being declared as SLNA under Odisha Industries Facilitation Act, 2004, are to extend Single Window Facilitation services to investors and to take up Promotional activities for the State. In the year 2015-16, thirty two(32) meetings of State Level Facilitation Cell and eight(8) meetings of State Level Single Window Clearance Authority (SLSWCA) have been held to approve project proposals. In 2015-16, twenty three (23) Nos. of project proposals have been cleared by State Level Single Window Clearance Authority (SLWCA) aggregating proposed investment of Rs.4408.12 crores. Besides seven (7) Nos. of project proposals have been cleared by High Level Clearance Authority (HLCA) aggregating proposed investment of Rs.41900.61 crores.

The Investment Promotion wing of IPICOL has taken up the following key activities towards attracting investment to the State.

- Focused Group discussions were organized across the country to collect the feedback from various Industries representatives for taking inputs for the long term roadmap for industrial development in the state.
- To create awareness on the IPR 2015, Investor guide, Industrial land use and services (GOiPLUS), central inspection condition (CICG) and mobile application, IPICOL organizes regional workshops at multiple locations in the state.
- IPICOL drives the Make in India, Ease of Doing Business (EODB) program and the State is placed 7th in the World Bank ranking of Ease of Doing business. The State aspires to be in top 3 positions in

next year ranking. IPICOL is driving the same to achieve the goal set by the State Government.

- iv. A document has been prepared on downstream industries for industrial hubs at Paradeep, Kalinganagar, Jharsuguda, Rourkela, Dhamra, Angul, Gopalpur for attracting large-scale investment in the downstream industries.
- v. The IPICOL has constantly and consistently increased the visibility of the State in National & International level. A large number of investment promotion events have been organized / participated by IPICOL under 'Invest Odisha' banner. A few such important events are given at Annexure 4.3.

#### **Industrial Development Corporation of Odisha Ltd. (IDCOL)**

IDCOL was set up in 1962 to support Large and Medium Scale Industries in the State. It has set up 15 Industry units in the state. As a part of the Public Sector Reforms Policy of the Government divested many industrial undertaking, sick subsidiary companies were disinvested or assets were sold. Presently, it continues as the holding company of the following subsidiary companies:

- i. IDCOL Kalinga Iron Works Ltd. (IKIWL) at Barbil, engaged in manufacturing foundry grade pig iron and cast iron spun pipe.
- ii. IDCOL Ferro Chrome and Alloys Ltd. (IFCAL) at Jajpur Road, which produces high carbon ferro chrome (HCFC).
- iii. IDCOL Software Ltd. at Bhubaneswar which acts as one of the nodal IT agents of the Government.
- iv. Konark Jute Limited, Dhanamandal, engaged in jute products. The company

has stopped its operation since October 2012 due to uneconomic operation and voluntary retirement of almost all regular employees.

As on 30th November 2014, the corporation provided employment to about 1049 persons directly and indirect employment to about 1534 persons in its wholly owned subsidiary companies. It has been a part of its HR Policy to maintain industrial harmony and no major labour unrest/ strikes have been reported. IDCOL operates Roida 'C' Iron Ore and Manganese mines.

#### **Odisha Small Industries Corporation (OSIC)**

OSIC has been established with the main objective to aid and assist the MSMEs units for their all-round growth and development. The Corporation has been administering various schemes like (a) Consortium Marketing (b) Raw Material Assistance (c) Brand Building & Marketing (d) MSME Infrastructure Development, and various other Govt. Schemes for the MSMEs of the State. Apart from the above activities, OSIC has been undertaking Civil Construction activities, Rural Electrification work and supply of Bitumen and Tata Tiscon bars for construction of roads and houses respectively in all corners of the State.

Under Raw Material Assistance Scheme, OSIC provides various types of raw materials to MSME units through 12 raw material depots spread all over the state. Presently, it deals with raw materials like iron and steel, TISCON bars, aluminum ingots, plastics, bitumen and coal and has appointed 330 dealers to spread its TISCON bar business. The Corporation achieved a turnover of Rs. 449.81crore during 2015-16.

Under Marketing Assistance Scheme, it provides product and project marketing assistance to small-scale units and participates in tenders and liaison with public and private sectors for procurement of bulk orders. Its main marketing products include agricultural implements and dual desks. The corporation has entered into Rural Electrification works through CESCO, WESCO and NESCO since 2006-07. It is worth mentioning that OSIC achieved a turnover of Rs. 83.99 crore during 2015-16.

Under Sub-Contract Exchange Scheme, the Corporation provides marketing support to SSI units through its Contract Exchange Scheme. In 2015-16, it achieved a business of Rs 18.30 crore under this scheme.

### Odisha Khadi and Village Industries Board (OK&VIB)

Odisha Khadi and Village Industries Board is a statutory organization constituted for organizing, developing and regulating Khadi and Village Industries in the state with a view to provide gainful employment to rural artisan and economically backward class of people. The Khadi and Village Industries Commission, Mumbai, provides fund for implementation of schemes as per guidelines issued by KVIC, Mumbai time to time. The establishment expenses of the Board have been borne by the Govt. of Odisha. Under this Programme, during 2015-16 the Board has provided margin money of 16.25 crores for establishment of 777 village industries and generated employment to 5618 persons. The target and achievements under 2015-16 and 2016-17 (upto 30.06.2016) is given in Table 4.11.

#### Progress under PMEGP Scheme by KVIB from 2011-12 to 2015-16

(Employment in No. and Margin Money Rupees in lakh)

Year	Target			Achievement		
	No.	Margin money	Employment Generated	No.	Margin money	Employment Generated
2011-12	905	1266.26	9050	678	1274.85	5333
2012-13	1036	2381.28	8288	1184	2314.54	9529
2013-14	1036	2381.28	8288	641	1315.08	4843
2014-15	1576	2177.59	12608	626	1374.79	4602
2015-16	718	1434.60	5744	777	1624.79	5618

[Table 4.11]

Source: Odisha Khadi & Village Industries Board

### Odisha State Financial Corporation (OSFC)

Odisha state Financial Corporation (OSFC) came into existence in 1956 after incorporation of the SFCs Act by the Parliament in 1951. OSFC is a state level pioneer institution engaged in financing micro,

small and medium scale industries in the state. It provides loan assistance for setting up industries in tiny, small and medium scale in consortium finance with commercial banks. It extends term loan up to Rs. 10.00 crore per project/unit for acquisition of fixed assets for setting up industrial units. Besides, the corporation extends financial assistance for

expansion, diversification, modernization & revival of potential viable units. The credit delivery net work of OSFC is being taken up by its 9 Branches.

In its 60 years of operation, the corporation has disbursed Rs. 1310 crore to 28222 micro, small & medium scale industries resulting in direct employment for more than two lakh people in various sectors such as iron and steel, hospitality and healthcare, transport, agro based etc. It also created scope for self employment. In fact, SFC created seed-bed for the first generation entrepreneurs.

OSFC played a major role in the process of industrialization of the state in the MSME Sector. Besides, the State Government Capital Investment subsidy and National Equity fund of SIDBI were channelized through the Corporation. During 2015-16, OSFC recovered Rs.19.73 crore. Details are given in Annexure 4.4.

#### **Directorate of Export Promotion and Marketing**

The Directorate has been declared as the nodal agency for providing marketing support to registered and rate contract holding industry units and rendering technical assistance for promoting exports. The State Government initiatives to promote exports of goods include establishment of an Export Promotion Industry Park (EPIP); improved overseas marketing information and trade enquiries, liasoning with related International, Central, State and other corporate stakeholders agencies; presenting export awards annually to

the best exporters to generate competitiveness and collaborating with recognized national level institutions like Indian Institute of Foreign Trade (IIFT), Director General of Foreign Trade (DGFT), Export Credit Guarantee Corporation (ECGC) and Export Promotion Councils (EPC) etc. EPM provides marketing support to MSME units with updated market data base, rate contract, inspection and quality control programmes.

During the year 2016-17, target has been fixed for collection of revenue receipt (i.e non tax revenue) amounting to Rs 78.16 Lakhs by the directorate of EP&M against which an amount of Rs 60.99 lakh has been collected as revenue receipt (Non – Tax revenue).

#### **4.2 Mining And Quarrying**

Minerals are essentially the raw materials for infrastructure, capital goods and basic industries. The extraction and management of minerals have to be integrated into the overall strategy of the State's economic development. Assured availability and proximity of mineral resources play an elemental role in giving a competitive edge to the State's industry. The multiplier effect of minerals processed into metals on downstream industrialisation cannot be ignored. Mining & quarrying sector shares 7.3 percent of GSDP of Odisha. It generates about 0.49 lakh direct employment in mineral based industries in the State. The sector provides sizable fiscal resources as taxes & royalties. The contribution of Mining and Quarrying sector to Odisha's real GSDP is shown in Figure 4.7.



### Trend of share of Mining & Quarrying sector in Odisha's GSDP at current prices

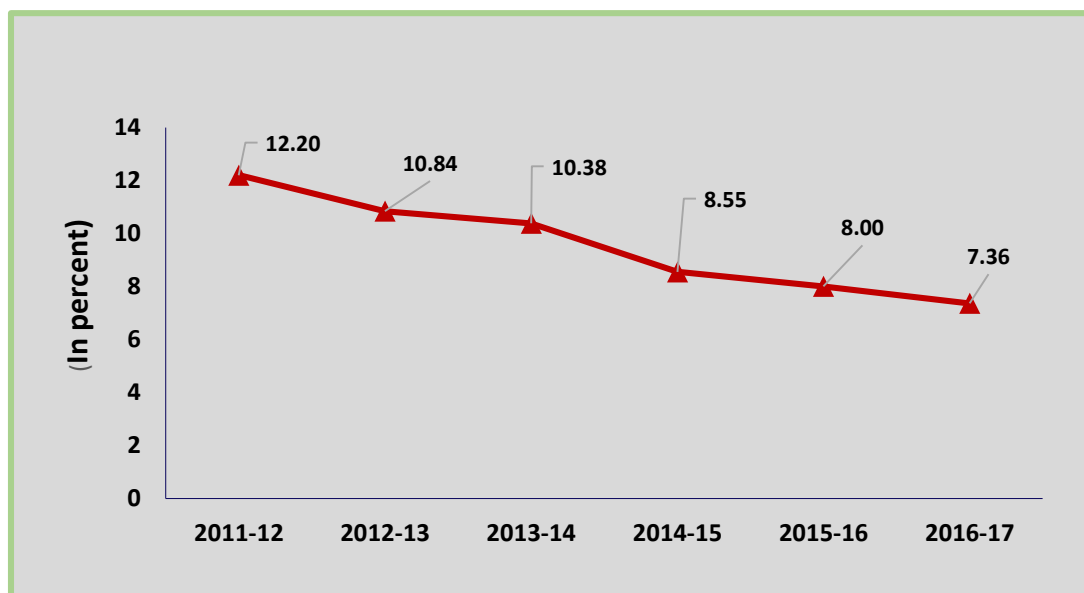


Figure 4.7]

Source: State Income Division DE&S, Odisha

#### Minerals in Odisha

Odisha is a mineral rich State with large varieties of metallic and nonmetallic minerals which include chromite, bauxite, graphite, iron ore, manganese ore, limestone, clay, quartz and quartzite, nickel, copper, lead, coal and many precious stones. Minerals in Odisha contribute multi dimensionally to its economy. The State Government of Odisha envisions achieving optimal utilisation of State's mineral resources for its industrial growth and socio-economic development, through scientific exploration, sustainable mining practices and geo scientific research.

#### Mineral Reserves and Exploration

Odisha has been richly endowed with vast resources of a variety of minerals and

therefore occupies a prominent place in the country as a mineral rich state. By 2015-16 it could be known from surveys that about 92 percent of Chromite, 52 percent of Bauxite, 35 percent of Manganese, 33 percent of Iron ore, 92 percent of Nickel and 24 percent of Coal deposits of India are located in the state. Among the major minerals, Odisha has 757860.5 million tonnes of coal, 171.5 million tonnes of chromite, 5692.83 million tonnes of iron ore, 1895.11 million tonnes of bauxite and 1765 million tonnes of lime stones reserves. Table 4.12 reflects a picture on total reserves, exploration and rate of exploration of important minerals in the State during 2012-13 to 2015-16.

### Total Reserves, Exploration and Rate of Exploration of important minerals during 2012-13 to 2015-16

Minerals/ Ores	Total reserves in 2015-16 (P)	Exploration in Million tonnes during				Rate of Exploration to total reserves (%)			
		2012- 13	2013- 14	2014- 15	2015- 16	2012- 13	2013- 14	2014- 15	2015- 16
Iron ore	5692.83	62.93	77.784	53.33	80.87	1.27	1.36	0.93	1.42
Chromite	171.49	2.88	2.855	2.16	3.10	1.8	1.62	1.24	1.81
Coal	757860.53	109.68	108.175	122.76	138.55	0.15	0.14	0.02	0.02
Bauxite	1895.11	5.46	7.635	9.19	10.84	0.3	0.41	0.49	0.57
Lime stone	1764.45	3.90	3.716	3.41	4.52	0.39	0.21	0.19	0.26
Dolomite	682.54	1.02	0.687	0.46	1.04	0.31	0.10	0.07	0.15
Fire clay	170.08	--	-	0.00	0	0.0	-	0.00	0
Quartz, quartzite, etc.	134.26	0.03	0.04	0.03	0.05	0.04	0.04	0.02	0.04
Mineral sands	266.38	0.23	0.179	0.24	0.226	0.1	0.07	0.09	0.08
Graphite	8.59	0.01	0.010	0.01	0.18	0.15	0.12	0.12	2.10
Manganese ores	189.66	0.53	0.663	0.32	0.43	0.44	0.35	0.17	0.23

[Table 4.12]

Sources: Director of Mines, Odisha, and Directorate of Geology, Odisha

Table 4.13 represents the district-wise exploration of major minerals in Odisha during 2015-16. It may be observed that about 58.24 percent of coal has been extracted in Angul district and the rest from Jharsuguda, Sundargarh and Sambalpur

districts. Iron ore extraction is mostly confined to Keonjhar district which accounts for 67.44 percent of total extraction, followed by Sundargarh (28 percent). Most of the bauxite mining takes place in Koraput district, followed by Rayagada.

### District-wise Break-up of Exploration and Value of Major Minerals in Odisha during 2015-16

(Quantity in lakh MT, Value in crores of rupees)

District	Chromite		Coal		Iron-Ore		Manganese Ore		Bauxite	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
Angul			806.96	11652.48						
Dhenkanal	-	-	-	-	-	-	-	-	-	-
Jajpur	31.03	3212.16	-	-	29.996	614.03	-	-	-	-
Jharsuguda	-	-	455.49	6577.25	-	-	-	-	-	-
Keonjhar	-	-	-	-	545.44	11165.16	3.33	41.71	-	-
Koraput									63.40	424.74
Mayurbhanj				-	7.459	152.68	-	-	-	-
Sundargarh	-	-	117.50	96.67	225.77	4621.46	0.92	122.03	-	-
Sambalpur	-	-	5.60	80.91	-	-	-	-	-	-
Bolangir			-	-	-	-	-	-	-	-
Rayagada								-	44.99	301.42
<b>Total</b>	31.03	3212.16	1385.55	20007.31	808.66	16553.33	4.25	63.74	108.40	726.16

[Table 4.13]

Source: Director of Mines, Odisha

Among the districts, almost one-third of the minerals are confined to Angul district alone whereas this district together with Keonjhar constitutes around 60 percent of the State's mineral resources.

### Mineral Production in Odisha and other major states of India

The State has shown a consistent growth in the production of Bauxite, Coal and Iron Ore over the last three years. The production of Iron ore has increased substantially from 77.84 lakh

MT in 2013-14 to 808.66 lakh MT in 2015-16. Similarly the production of Bauxite has increased from 76.35 lakh MT in 2013-14 to 108.40 lakh MT in 2015-16 while the production of Coal has increased from 1081.75 lakh MT in 2013-14 to 1385.55 lakh MT in 2015-16. Table 4.14 shows the production and value of various minerals in Odisha from 2013-14 to 2015-16 and Table 4.15 shows production of major minerals recorded in major States.

### Production and Value of Various Minerals/Ores in Odisha, 2013-14 to 2015-16 (All Minerals)

(Value Rs. in Crore & Production in Lakh MT)

Minerals/Ores	2013-14		2014-15		2015-16	
	Production	Value	Production	Value	Production	Value
Bauxite	76.35	394.73	91.92	615.86	108.40	726.25
China clay	-	-	0.00	0	0.00	0.00
Chromite	28.55	2866.71	21.62	2170.86	31.03	3212.16
Coal	1081.75	23798.50	1227.63	27007.86	1385.55	20007.31
Dolomite	6.88	30.27	4.61	33.88	10.35	76.09
Fireclay	-	-	0	0	0.00	0.00
Gemstone	51.200Kg.	-	0	0	0.00	0.00
Graphite	0.10	0.7	0.05	0.33	0.18	1.16
Iron ore	77.84	25886.50	533.29	23971.38	808.66	16553.32
Lime stone	37.16	143.44	34.13	200.34	45.25	179.63
Manganese ore	6.64	815.99	3.20	423.10	4.25	563.74
Ilmenite	-	-	-	-	1.83	129.31
Rutile	-	-	-	-	0.07	38.75
Ziron	-	-	-	-	0.05	28.82
Sillminite	-	-	-	-	0.13	8.78
Garnet	-	-	-	-	0.15	5.15
Monazite	-	-	-	-	0.02	0.00
Pynophilite	0.04	0.08	0.04	0.24	0.04	0.27
Pyroxenite	-	-	0	0	0.00	0.00
Quartz	0.02	0.76	0.003	0.02	0.00	0.00
Quartzite	0.45	2.21	0.30	0.31	0.50	5.00
Serpentinite	-	-	-	-	0.00	0.00

<b>Silica sand</b>	-	-	0	0	0.00	0.02
<b>Soap stone</b>	-	-	0	0	0.00	0.00
<b>Kyanite</b>	-	-	0	0	0.00	0.00
<b>Total</b>	<b>2017.57</b>	<b>54511.87</b>	<b>1919.24</b>	<b>54861.11</b>	<b>2396.47</b>	<b>41535.57</b>

[Table 4.14]

Source: Director of Mines, Odisha

### Major Mineral Production Recorded in Major States by the End of 2015-16

(In Lakh tonnes)

State	Bauxite	Coal	Chromite	Lime stone	Manganese ore	Fireclay	Iron ore
Andhra Pradesh	-	-	-	297.62	1.73		4.59
Assam	-	3.34	-	6.25	-		0
Bihar	-	-	-	4.33	-		0
Chhattisgarh	19.15	1164.96	-	247.85	-		218.73
Goa	2.91	-	-	-	-		7.81
Gujarat	100.85	-	-	229.2	0.32		-
Himachal Pradesh	-	-	-	112.09	-		-
J & K	-	0.11	-	1.11	-		-
Jharkhand	19.2	1062.17	-	9.67	0.004		174.25
Karnataka	0.12	-	0.01	244.22	1.29		225.12
Kerala	-	-	-	4.46			-
Madhya Pradesh	5.06	964.36	-	345.76	6.38		22.91
Maharashtra	16.99	337.35	0.0002	119.12	5.53		13.1
Meghalaya	-	35.38	-	35.04	-		-
<b>Odisha</b>	<b>97.21</b>	<b>1243.03</b>	<b>24.53</b>	<b>40.12</b>	<b>3.48</b>		<b>706.2</b>
Rajasthan	-	-	-	602.66	0.03		10.49
Tamil Nadu	0.25	-	-	203.99	-		-
Telangana	-	543.39		214.35	0.05		-
Uttar Pradesh	-	112.72	-	24.13	-		-
West Bengal	-	230.5	-	-	-		-
<b>India</b>	<b>261.74</b>	<b>5697.31</b>	<b>24.54</b>	<b>2741.97</b>	<b>18.81</b>		<b>1383.2</b>

[Table 4.15]

Sources: Annual Report of IBM 2015-16, Govt. of India

#### Value of Output

Table 4.16 depicts the value of mineral production of major States (including offshore)

and India from 2011-12 to 2015-16 (up to February 2016).

**Value of Mineral Production of Major States  
during 2015-16 and its Percentage at all India level**

(Rupees in crores)

State	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh				17569.71	13265.03
%				(8.29)	(6.36)
Assam	11439.28	10999.93	11153.47	9814.57	9260.66
%	(8.33)	(7.59)	(4.94)	(4.63)	(4.44)
Meghalaya				3550.43	2580.19
%				(1.67)	(1.23)
Gujarat	13904.76	13046.24	12389.43	10554.04	10258.43
%	(10.12)	(9.00)	(5.49)	(4.98)	(4.92)
Karnataka	4083.18	4409.11	5741.68	5782.47	4121.95
%	(2.97)	(3.04)	(2.54)	(2.73)	(1.98)
Maharashtra	6126.41	6151.88	6898.96	6316.65	5925.81
%	(4.46)	(4.24)	(3.06)	(2.98)	(2.84)
Madhya Pradesh	9659.85	10502.08	11077.07	12568.14	15624.52
%	(7.03)	(7.25)	(4.91)	(5.93)	(7.49)
Odisha*	28597.81	29450.41	54281.60	26470.10	29528.57
%	(20.52)	(20.32)	(24.05)	(12.50)	(14.16)
Telengana				7080.07	8344.43
%				(3.34)	(4.00)
Jharkhand	16308.35	16516.01	20645.27	25645.19	24244.46
%	(11.87)	(11.39)	(9.15)	(12.11)	(11.63)
Rajasthan	17982.98	23502.70	24714.06	22361.36	22689.53
%	(13.09)	(16.21)	(10.95)	(10.56)	(10.88)
Tamil Nadu	5515.44	5744.29	6075.44	5599.24	5321.99
%	(4.02)	(3.96)	(2.69)	(2.64)	(2.55)
West Bengal	8127.39	8882.36	11750.94	4044.37	3528.52
%	(5.92)	(6.13)	(5.2)	(1.91)	(1.69)
Offshore				49792.63	49186.84
%				(23.51)	(23.59)
<b>All India</b>	<b>137346.78</b>	<b>144945.17</b>	<b>225659.68</b>	<b>211712.22</b>	<b>208488.13</b>
%	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

[Table 4.16]

Sources: Annual Report of IBM 2015-16, Govt. of India.

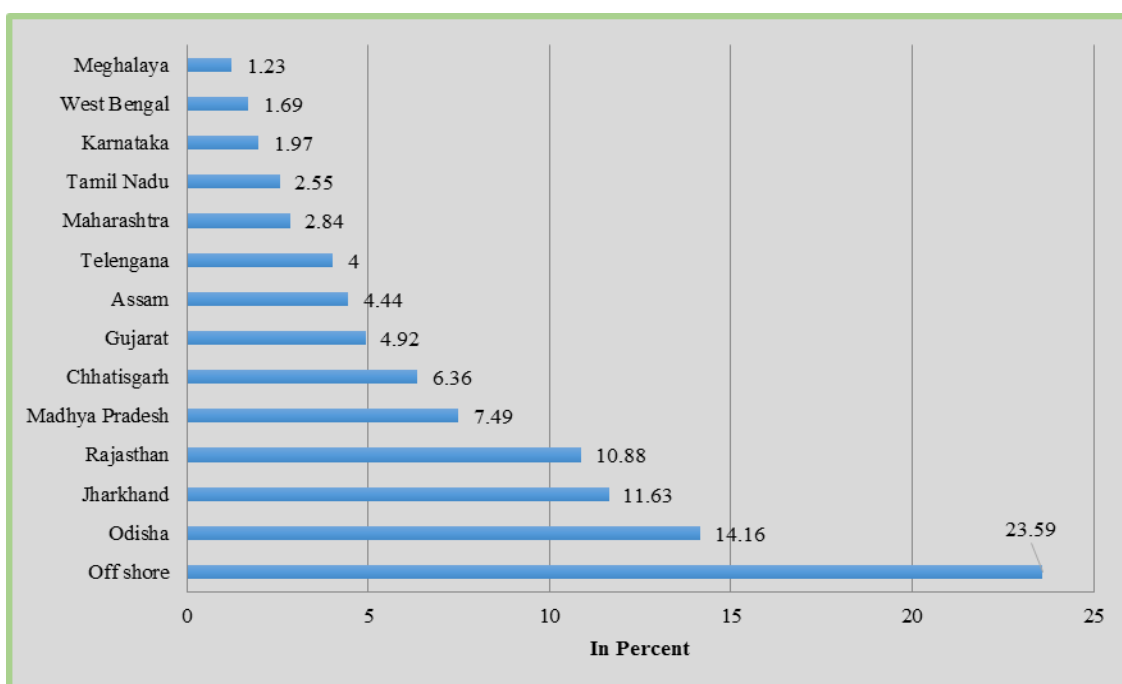
During 2015-16, 13 States (including offshore areas) accounted for about 97.74 percent of total estimated value of mineral production in India. Offshore areas are in

leading position with 23.59 percent share in the national output. Odisha lead the major States with a share of 14.16 percent followed by Jharkhand (11.62 percent), Rajasthan

(10.88 percent), Madhya Pradesh (7.49 percent), Chhattisgarh (6.36 percent), Gujarat (4.92 percent), Assam (4.44 percent), Telangana (4.00 percent), Maharashtra (2.84 percent), Tamil Nadu (2.55 percent), Karnataka (1.97 percent), West Bengal(1.69 percent) etc. in the total value of mineral production. Remaining States and Union Territories having individual share of less than 1.23 percent all together accounted for remaining 2.25 percent of total value during the year under review. State-wise analysis revealed that during 2015-16, the value of

mineral production have shown a mixed trend as compared to that in the previous year. The principal mineral production have increased in the states of Odisha, Rajasthan, Madhya Pradesh and Telangana and decreased in the States of Jharkhand, Chhattisgarh, Gujarat, Assam, Maharashtra, Tamil Nadu, Karnataka, West Bengal and Meghalaya. Figure 4.8 compares Odisha with other major states (including off shores) in 2015-16 (up to February 2016) in terms of percentage share of total value of mineral output in India.

**Percentage share of Value of Mineral Production of Major States to all India, 2015-16 (estimated)**



[Figure 4.8]

Source: Annual Report, IBM, GOI, 2015-16

### Minerals Exports

The exports of minerals and ores from the State show a declining trend from 2011-12 to 2014-15. However the export has increased to a great extent during 2015-16 so far the quantity is concerned. (Table 4.17).Iron ore is

the most important mineral in the export basket of all the minerals. Its share in total exports of minerals stood at 96 percent in 2015-16.

## Exports of Minerals/Ores from Odisha

(Quantity in lakh MT, Value in crores of rupees)

Items	2011-12		2012-13		2013-14		2014-15		2015-16	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
Chromite	3.50	430.69	N.A	N.A	2.01	20.28	0.17	24.26	31.03	32.12
Iron Ore	129.67	3748.68	N.A	N.A	88.15	2933.14	59.77	3092.60	808.66	165.53
Mineral sand	1.56	52.42	N.A	N.A	1.35	432.03	3.65	401.90	0.23	0.00
Manganese	0	0	N.A	N.A	-	-	-	-	4.25	5.64
Others (thermal coal, Hardcoal and Ferrochrome)	-	-	-	-	-	-	-	-	0	0
Total	134.73	4231.79	N.A	N.A	91.51	3386.05	63.59	3518.66	844.17	203.29

[Table 4.17]

Source: Director of Mines, Odisha

## Mineral Revenue

A sum of Rs 5797.79 crores has been collected during 2015-16 towards mineral revenue out of production, dispatch in the

State. The collection of mineral revenue from 2011-12 to 2015-16 is given in Table 4.18.

## Production, Dispatch and Collection of Mineral Revenue 2011-12 to 2015-16

(Production &amp; dispatched in MT and Revenue collection Rs. in crore)

Year	Production	Dispatched	Revenue collection
2011-12	185.22	171.95	4586.64
2012-13	186.68	173.55	5679.35
2013-14	201.81	226.35	5519.58
2014-15	190.35	193.19	5310.09
2015-16	239.64	241.60	5797.79

[Table 4.18]

Source: Directorate of Mines, Govt. of Odisha

## Employment in Mining Sector

Mining and quarrying provides employment to different sections including tribal groups. Table 4.19 reports the number of workers directly engaged in various mining activities in different years. By end of 2015-16, 49086 numbers of workers are employed directly in major mineral activities. Coal mining employs maximum 19800 direct workers followed by

iron ore 18100 workers, chromite 5974 workers, manganese 2415 workers etc. The sector has been increasingly employing labor-saving and capital-intensive production techniques and technology over the years. It may further be noted that 77 percent of the employed work force get engaged in the iron ore and coal sub-sectors (Figure 4.9).

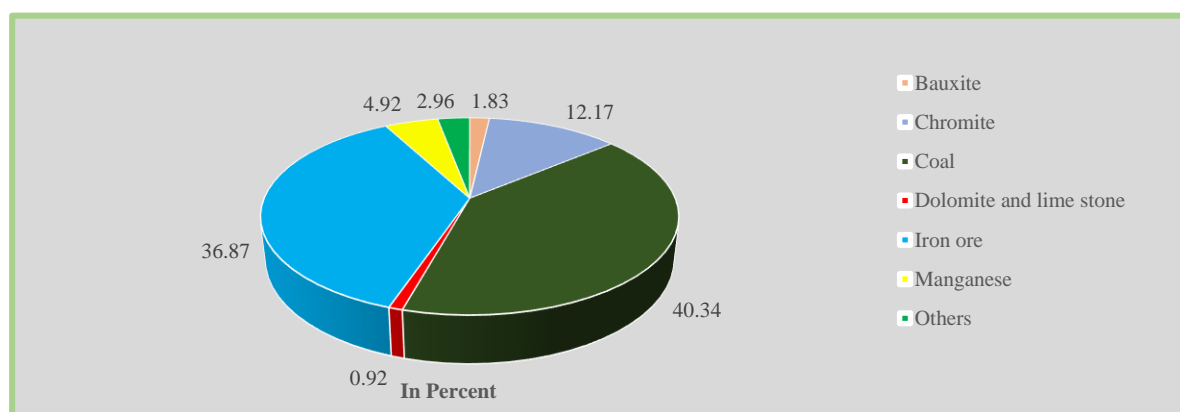
### Number of workers directly employed in Major Mineral Activities

Mineral Ores/District	2011-12	2012-13	2013-14	2014-15	2015-16
Bauxite (Koraput, Sundargarh)	932	895	674	674	896
Chromite (Dhenkanal, Jajpur, Keonjhar)	7053	6030	5328	5328	5974
Coal (Angul, Jharsuguda, Sundargarh, Sambalpur)	16330	14320	19700	19700	19800
Dolomite and lime stone (Bargarh, Bolangir, Koraput, Sundargarh)	496	1760	367	367	450
Iron ore (Jajpur, Keonjhar, Mayurbhanj, Sundargarh)	17257	32901	17611	17611	18100
Manganese ore (Keonjhar, Sundargarh, Rayagada, Bolangir)	2641	2186	2359	2359	2415
Others (china clay, quartz & quantity, graphite, mineral sand, gem stone, pyrophilite etc.)	3530	1325	1331	1331	1451
<b>Total</b>	<b>48239</b>	<b>59417</b>	<b>47370</b>	<b>47370</b>	<b>49086</b>

[Table 4.19]

Source: Director of Mines, Odisha.

### Composition of Employment by Mineral Type, 2015-16



[Figure 4.9]

Source: Directorate of Mines, Govt. of Odisha

The figure 4.10 shows the trend of employment in major mineral activities taken

up in the state over the years 2011-12 to 2015-16.



**Trend of Employment in major mineral activities from 2011-12 to 2015-16**

[Figure 4.10]

Source : Directorate of Mines, Govt. of Odisha

From Figure 4.10 it is observed that during 2012-13 the employment generated was maximum over the last five years due to large number i.e. 32901 no. of workers involved in iron ore activities taken up in the districts of Jajpur, Keonjhar, Mayurbhanj and Sundargarh.

**Mining Leases and Auction of Mineral Blocks**

There were 377 mining leases in 2015-16, covering an area of 82157.32 ha. Out of these, 101 leases over an area of 45297.68 ha were in operation. Mineral-wise leases, both working and non-working, in Odisha during 2015-16 are listed in Table 4.20.

The State Govt. has decided to grant Mining leases through auction in pursuance of

provision of MMDR (Amendment) Act 2015. However, in pursuance of decision of Central Government, the Mineral bearing blocks which have been explored up to G2 level are now being processed for auction. The Directorate of Geology and the Geological Survey of India have been advised to do the needful for early completion of exploration in the areas. During the financial year 2015-16 (up to March 2016) four applications for P.L., one application for M.L. have been processed and forwarded to Govt. for necessary consideration. Likewise, in respect of the applications for mineral concession for decorative stone, PL 82 nos, ML 23 nos. and RML 6 nos. applications have been disposed during the year 2015-16 up to March 2016.

**Mineral-Wise Leases, 2015-16**

Minerals/Ores	Total Leases		Working Leases	
	Nos.	Area in Hectares	Nos.	Area in Hectares
Asbestos	1	117.35	0	0
Asbestos & Pyroxenite	1	49.22	0	0
Bauxite	7	6630.404	3	5060.131
China clay	16	1557.352	2	117.044
China clay and F. Clay	2	93.161	0	0
Chromite	25	6998.608	11	1585.759

Chromite & Pyroxenite	1	406.000	1	406.000
Serpentinite, Manganese & Chromite	1	187.03	0	0
Coal	30	20541.941	28	17495.740
Dolomite	5	521.649	3	408.404
Fireclay	24	2675.984	0	0
Fireclay & Sandstone	1	192.175	0	0
Fireclay & Silica sand	1	255.160	0	0
Galena	1	5.261	0	0
Gemstone	13	150.326	3	5.918
Graphite	104	2834.076	6	182.265
Iron ore & Manganese	65	15088.121	15	4770.356
Iron ore	76	23238.602	27	14785.898
Iron ore & Bauxite	2	480.163	2	480.163
Iron, Dolomite & Lime stone	1	134.733	0	0
Total	<b>377</b>	<b>82157.316</b>	<b>101</b>	<b>45297.678</b>

[Table 4.20]

Source: Director of Mines, Odisha

### District Mineral Fund

Odisha District Mineral Foundations Rules, 2015 have been framed and notified by the State Govt. and subsequently amended on 15.01.2016 to include District Mineral Foundations coming into existence w.e.f. the 12th day of January, 2015, to incorporate the 'Pradhan Mantri Khanij Kshetre Kalyan Yojana' (PMKKKY) in to the DMF Rules. The objective of District Mineral Foundation is to work for the interest and benefit of persons and areas affected by mining related operations. Accordingly, District Mineral Foundation Trust have been constituted in all 30 (thirty) districts with Collector as Chairperson and other designated members as

per DMF Rules. The funds of the Trust will be utilized for implementing the PMKKKY under Drinking Water Supply, Environmental preservation and pollution control measures, health care, education, welfare of women and children, welfare of aged and disabled people, skilled development, sanitation, housing etc.

### Odisha Mining Corporation (OMC)

The Odisha Mining Corporation Limited (OMC), established in 1956, is the largest State Public Sector unit in the country's mining sector. In 2015-16, 31 leases covering an area of 17,777.94 ha. have been held by OMC. The details of Leases held are shown in Table 4.21.

### Leases Held by OMC at the End of 2015-16

Minerals/Ores	Leased held	
	Nos.	Area (in hect.)
Chromite	11	5829.304
Iron	11	5786.9142
Iron & Manganese	5	4175.689
Manganese	3	685.241
Lime stone	1	1300.79
Gemstone	-	-
Total	<b>31</b>	<b>17777.9382</b>

[Table 4.21]

Source: Odisha Mining Corporation, Bhubaneswar

### Production of Minerals by OMC

The production of minerals by OMC from 2011-12 to 2015-16 is reflected in Table 4.22. Iron ore is produced from 6 mines of OMC i.e. Daitari, Gandhamardhan, Kurmitar, Barpada Kasia, Tiring Pahar & Mahaparbat mines, while chrome ore is produced in 3 mines of OMC i.e. South Kaliapani, Bangur and Sukurangi mines. 54 percent of total iron ore are produced in Daitari and Kurmitar mines alone while 87 percent chrome ore is produced in South Kaliapani mines of OMC.

Impassively, the iron ore production of 60.19 lakh MT by OMC surpassed its annual revised budgeted target of 57.55 lakh MT made for 2015-16. The production of minerals (iron ore, chrome ore, chrome concentrates & manganese ore) by OMC increased to 70.10 MT during 2015-16 from 39.44 MT during 2014-15. Iron ore shares 86 percent of the total mineral production leaving 14 percent to chrome ore & concentrates by OMC.

#### Production of Minerals by OMC from 2011-12 to 2015-16

(in lakh MT)					
Minerals/Ores	2011-12	2012-13	2013-14	2014-15	2015-16
Iron Ore	42.73	24.55	18.72	32.06	60.20
Chrome Ore	4.34	5.97	5.81	7.01	9.60
Manganese Ore	Nil	Nil	Nil	Nil	Nil
Chrome concentrate	1.07	0.84	0.76	0.37	0.30
Total	48.14	31.36	25.29	39.44	70.10

[Table 4.22]

Source: Odisha Mining Corporation, Bhubaneswar

### Sales of Minerals by OMC

Table 4.23 gives a detail picture on domestic sales of minerals made by OMC. During 2015-16 OMC made domestic sales of 43.38

lakh MT, 6.14 lakh MT and 0.14 lakh MT of iron ore, chrome ore & chrome concentrates respectively.

#### Minerals/Ores Sold by OMC

(Quantity in lakh MT Value in Rupees in crore)									
Sl. No.	Minerals/Ore	2012-13		2013-14		2014-15		2015-16	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1	<b>Iron Ore</b>								
	Domestic	27.10	1112.10	31.91	1007.43	34.97	1,083.92	43.38	83804.11
	Export	-	-	-	-	-	-	-	-
	<b>Total</b>	27.10	1112.10	31.91	1007.43	34.97	1,083.92	43.38	83804.11
2	<b>Chrome Ore</b>								
	Domestic	3.99	481.67	5.85	736.82	566384.390	747.46	6.14	69512.00
	Export	-	-	-	-	-	-	-	-
	<b>Total</b>	3.99	481.67	5.85	736.82	566384.390	747.46	6.14	69512.00
3	<b>Chrome Concentrate</b>								
	Domestic	-	-	1.24	109.63	48269.750	49.09	0.14	1326.15
	Export	-	-	-	-	-	-	-	-
	<b>Total</b>	-	-	1.24	109.63	48269.750	49.09	0.14	1326.15

4	<b>Gemstone</b>								
	Domestic	-	-	-	-	-	-	-	-
	Export	-	-	-	-	-	-	-	-
	<b>Total</b>	0.21	-	-	-	-	-	-	-
5	<b>Aggregate</b>								
	Domestic	31.86	1658.15	39.00	1853.88	-	-	49.66	154642.26
	Export	-	-	-	-	-	-	-	-
	<b>Total</b>	31.86	1658.15	39.00	1853.88	-	-	49.66	154642.26

[Table 4.23]

Source: Odisha Mining Corporation, Bhubaneswar.

Table 4.24 reflects the annual turnover profit and dividend paid to the State Government from 2011-12 to 2015-16. With a total turnover of Rs 1546.42 crore and earned a profit before tax provisionally of Rs 1017.42 crore

### Turnover, Profits and Dividends Paid by OMC

(In crores of rupees)

Year	Turn over	Profit before tax	Dividend paid to Government
2011-12	2141.81	1880.59	500
2012-13	1658.15	1383.46	NA
2013-14	1853.88	1449.95	NA
2014-15	1881.26	1456.25	500.00 (Dividend)
2015-16	1546.42	1017.42	500.00(Dividend)

[Table 4.24]

Source: Odisha Mining Corporation, Bhubaneswar

In order to meet the demand of local market, OMC has decided to go for a 2.5 MTPA iron ore project at its Daitari Mines in Keonjhar district with a project cost of Rs 600 crore for installation of crushing & screening plant along with distance conveyers & rail mode of dispatch of the product. The project has been approved by Govt. of Odisha expected to be completed by 2017.

### JV Projects

OMC has taken a joint venture programme to diversify its activities and extends its activities by associating with Joint Venture (JV) projects with the following Companies/Corporations for development of bauxite mines, power & rail projects sites in Odisha. This is presented in Box 4.1

### OMCs JV with following Companies/Corporations

Sl. No.	JV Companies/Corporations	JV Projects area covered
1	Mandakini-B coal corporation Ltd.(MBCCL)	To develop Mandakini-B coal Blocks having a coal reserve of 1200 MT in Angul district for production of atleast 15 MTPA of coal for power generation.
2	Nuagaon Coal Company Ltd.	Nuagaon-Telisahi Coal Block having a coal reserve of 733.83 MT in Angul District.
3	Angul-Sukinda Rail way project: Shareholders	Develop & maintain 104 kms new rail link between Angul-

Sl. No.	JV Companies/Corporations	JV Projects area covered
	are RVNL, JSPL, Govt. of Odisha, OMC, IDCO & Container Corporation of India Ltd	Sukinda at a project cost of Rs 1202.70 crore (excluding IDC), till Dec 2015, Rs 165.20 crore expenditure incurred (Provisional).
4	Odisha Thermal Power Corporation Ltd.	Setting up a coal based super critical thermal power plant of 3200 MW capacity in Kamakshyanagar Tahasil of Dhenkanal district. Estimated cost of the project – Rs.16174.17 crore i.e. Rs.6.74 crore per MW. Expenditure incurred upto January 2015 is Rs.216 crore.
5	Haridaspur- Paradeep new rail project shareholders are RVNL, IDCO, PPT, EMIL, RML, JSPL, SAIL, MSPL, GoO & OMC	Project cost Rs 1559 crore for 82.350kms rail link. Physical progress of the work is 50 percent. Till date Rs580.53 crore expenditure incurred. (Financial) : 49 percent

[Box 4.1]

Source: Activities of Steel and Mines Department 2015-16, Govt. of Odisha

### Own Projects

The OMC has taken a number of projects to enhance the present performance of the company, the details of which are given in Box 4.2.

#### OMC Ltd. Projects (Mech.)

Sl. No.	Name of the Project	Present Status
1	New 1000 TPH Ore Handling Plant with 3200 TPH Mechanized Wagon Loading System including related railway infrastructure for Iron Ore mine at Daitari.	Project proposal has been approved by Govt. of Odisha
2	New Chrome Ore Beneficiation Plant(COBP) at South Kaliapani.	Agreement is executed between OMC and M/s MBE-CMT (formerly HWIPL) for installation
3	Modification of existing COB Plant, Kaliapani.	Work completed
4	Construction of a tailing pond for both the COB plants at S. Kaliapani	M/S MECON is the technical consultant. Basic Engineering work completed.
5	Development of a commercially viable flow-sheet to establish a small scale beneficiation plant to recover Chromite values from the tailings of COB plant.	National metallurgical Lab(NML) Jamshedpur will make pilot scale investigation.
6	Mechanised Production and Evacuation System at Kurmitar Iron ore Mines.	M/S Engineers India Ltd is the technical consultant for the project. The work "ROM Characterization Studies is under progress.
7	Setting up of a beneficiation, pellet plant and evacuation methodology of CLO and finished product for the proposed plant at Gandhamardan-BML.	The estimated cost is Rs. 1348.47 crore. Board has recommended for obtaining Govt. approval..

[Box 4.2]

Source: Activities of Steel and Mines Department 2015-16, Govt. of Odisha

### 4.3 Geological Surveys and Explorations

Directorate of Geology, Odisha with an objective to fulfill the need of mineral based industries and to augment the mineral resources of the State executes various mineral

exploration programme from its Headquarters at Bhubaneswar and six zonal offices at Balangir, Berhampur, Dhenkanal, Keonjhar, Koraput and Sambalpur. The exploration programmes are approved in the annual State Geological Programming Board Meeting. In total 11 exploration programmes have been

finalized in the 51st SGPB meeting in respect of coal, iron ore, manganese, gemstone, graphite, beach sand, heavy minerals and dimension stone including one geophysical survey in the districts of Jharsuguda, Angul, Sundargarh, Keonjhar, Mayurbhanj, Dhenkanal, Kalahandi, Rayagada, Puri and Boudh. All these exploration programmes are continuing in the above districts. In addition to

field investigations, Petrological laboratory, Diamong laboratory, Ore dressing laboratory and Gem laboratory are also functioning in the Directorate. Gemstone laboratory of this Directorate is examining and certifying the gemstones. The achievement of the mineral exploration under Directorate of Geology, Odisha are shown at Box 4.3.

#### Geological exploration in Odisha during 2015-16

Sl. No.	Item of work	Achievement/area covered Samples collected
1	Geological mapping	1:25000 – 416 sq. kilometer, 1:2000 – 3.45sq. kilometer
2	Trial excavation	567.00 cum
3	Drilling	5004.60 m
4	Sampling –minera/rock	2611 number
5	Sampling –coal	433.68 meter
6	Geophysical survey Self potential survey (50m x 10m)	1.155 sq. kilometer

#### [Box 4.3]

Source: Activities of Steel and Mines Department 2015-16, Govt. of Odisha

Considering the need of minerals in the state, the Directorate of Geology has taken the following exploration programme for the Financial year 2016-17.

- Exploration for coal in Madhupur Block, IB Valley coalfield, Jharsuguda District.
- Exploration for Iron ore north of Netrabandha Pahar in Sundargarh district.
- Exploration for Iron ore in Dholtapahar of Sundargarh district.
- Exploration for Manganese in Roida 'D' block in Keonjhar district.
- Exploration for assessment of Gemstone resources in Saraskana area of Mayurbhanj district and Jillingdhar area of Kalahandi districts.
- Exploration for graphite in Rayagada District.
- Assessment of heavy minerals in Beach Sand along Puri Coast.
- Investigation for assessment of rocks for use a Dimension stone in Boudh District.
- Detailed exploration for limestone in parts of Sundargarh district.
- Geophysical survey in parts of Rayagada district.

#### Odisha Mineral Exploration Policy, 2015

The need to formulate Odisha Mineral Exploration Policy, 2015 was contemplated due to the rich stock of mineral resources in Odisha; scope for increasing share of mining sector to State GDP; massive employment opportunities; necessity of judicious distribution of these mineral resources; scope for higher fiscal resources for the State etc. Steel & Mines Deptt. Vide their Resolution dated 04.07.2015 have issued the Odisha Mineral Exploration Policy – 2015 with objective to make accurate assessment of the mineral resources through scientific exploration for optimal use of the bounties of natural resources. The aim of the policy is to upgrade the exploration level to G2 level in keeping with the UNFC norms within a reasonable time frame and eventually to G1 level so that the potential of mining sector is achieved through scientific exploitation of mineral resources.

#### 4.4 New Initiatives

- The Government has taken proactive measures to attract investments by creating the concept of “Team Odisha” and “invest Odisha” for industrial facilitation and investment promotion. New Industrial Policy-2015 and SEZ Policy-2015 have been implemented by the Govt. with an aim to attract investment and create industry friendly atmosphere by extending various fiscal and non-fiscal incentives. Further, OIF, Rules 2004 have been amended keeping in mind the new requirements and opportunities.
- State Govt. drives the Make in India programme launched by Govt. of India and implements the Ease of Doing Business (EoDB) in the State. The state has achieved in 7th place in the World Bank ranking of EoDB assessment. Further the Govt. has setup online processing of Combined Application Forms (CAF) for industries under e-Biz platform of Govt. of India.

- **Beach Sands Project**

IDCOL has signed MOU on 07.02.2015 with Indian Rare Earth Limited (IREL) for development of 1257.03 hcts. of Beach Sand area through JV Company. It has been decided to form a JV Company with IREL holding 51 percent and IDCOL holding 49 percent and application will be made to Govt. for reservation of Beach Sand area.

- **Technology Development Centre**

Govt. has **sanctioned** a budgetary support of Rs.1 crore to IDCOL for setting up Technology Development Centre for promotion of low purity Ferro Alloys from leon deposit of nickel bearing late rite ores / COB at Sukinda.

IDCO has planned to establish 12 New Industrial estates in the districts of Angul, Balasore, Cuttack, Jharsuguda, Sambalpur, Jagatsinghpur, Khordha, Sundargarh, Bhadrak, Dhenkanal, Ganjam and Rayagada for development of MSME and Ancillary Down Stream Industries for which Land acquisition is in progress.

- **The following initiatives have been taken by IPICOL:**

- ✓ Mapping of manufacturing industries in the state for creation of a comprehensive database on manufacturing industries on a GIS platform.
- ✓ Creation of a long term roadmap for industrial development of the state.
- ✓ Developing a mobile application to promote and facilitate investment in Odisha for the targeted users
- ✓ Promoting Odisha a preferred destination through a branding partner.

- OSIC has taken steps for export marketing of MSME products and for this purpose. export division has been opened on dt.20.1.2016. OSIC has also planned to supply Coal to MSMEs to be used as raw material. Accordingly, the Corporation has projected to achieve a turnover of Rs.800.00 crore in the FY 2016-17 with net profit of Rs.12.00 Cr. The turn over include rs.500.00 crore, Rs.250.00crore & Rs.50.00 crore for commercial, marketing and construction works respectively.

- Besides, the above, the Corporation will implement various Govt. schemes such as Odisha Youth Innovation Fund , Cluster Development Programme, Venture Capital Fund etc. for the benefit and development of MSME of the State in FY 2016-17

## 4.5 Success Story

Bharat Masala shows the way.....

Poverty and deprivation never deters a man to contribute for economic upliftment of poor. Sri Surendranath Panda was from a poverty ridden family of Matagajpur village of Cuttack district. He started his business on turmeric from a meagre borrowed money of Rs.500 in 1999. He moved ahead in his business with an inspiring profit margin of investment on the first day of business. His severe hand injury in the crusher while preparing turmeric powder did not prevent him to expand his business. He installed Italy's latest technology with the support of Government export Authority to produce the quality spices. His MBA qualified son Sri Sushant Panda, extended his entrepreneurial hand to transform Jai Bharat Spices Pvt. Ltd. into a Rs.600 crore company today with hard work, dedication and intellect. The company received national international and global recognition in many trade forums with apex industrial and entrepreneurial awards and operation of its corporate social responsibilities. The company is truly symbolic of an entrepreneurial revolution.

[Annexure 4.1]

### District-Wise Break-up of MSMEs & Employment Generate during, 2015-16

(Rs. in crore)

Districts	No. of MSME units set up	Investment (In crores of Rs.)	Employment Generated				Employment of women
			SC	ST	General	Total	
Bargarh	2101	149.47	1563	990	4745	7298	450
Jharsuguda	1508	59.81	772	983	2133	3888	806
Sambalpur	3002	227.10	1486	2569	5862	9917	1160
Deogarh	1001	1.06	714	461	2379	3554	1756
Sundergarh	4524	166.06	1527	4655	6253	12435	615
Keonjhar	1742	95.90	1254	1416	2873	5543	436
Mayurbhanj	2200	80.04	920	1734	3103	5757	984
Balasore	2655	61.27	2336	329	4371	7036	1935
Bhadrak	2003	73.80	376	57	5012	5445	141
Kendrapara	1502	37.61	689	35	3111	3835	1272
Jagatsinghpur	1000	56.54	1238	36	2004	3278	251
Cuttack	3055	214.62	2715	102	8116	10933	581
Jajpur	2027	130.81	2064	237	4645	6946	114
Dhenkanal	1706	79.85	296	23	2089	2408	106
Angul	2056	206.09	1821	691	5192	7704	422
Nayagarh	864	51.72	630	21	2404	3055	292
Khurda	2826	195.34	980	225	8033	9238	708
Puri	1510	42.49	390	21	4080	4491	997
Ganjam	2907	65.46	589	121	5755	6465	303
Gajapati	379	8.15	127	254	641	1022	277
Kandhamal	1020	36.39	1084	899	1012	2995	230



<b>Boudh</b>	434	12.98	70	18	1619	177	227
<b>Sonepur</b>	619	23.45	211	35	2405	2651	85
<b>Bolangir</b>	2135	97.18	1165	527	5768	74620	516
<b>Nuapada</b>	1701	59.48	809	1117	2805	4731	338
<b>Kalahandi</b>	2124	162.34	1880	820	3223	5923	171
<b>Rayagada</b>	1720	111.48	2410	2261	3300	7971	183
<b>Nabarangpur</b>	1146	40.75	1606	1408	1009	4023	17
<b>Koraput</b>	1930	117.75	1771	2237	3190	7198	653
<b>Malkangiri</b>	523	14.67	529	222	1073	1824	12
<b>Total</b>	53920	2679.66	344022	24504	108205	166731	16038

Source: Director of Industries, Odisha

[Annexure 4.2]

**Status of Profit-Making and Loss-Incurring Operating PSUs during 2015-16**

Sl. No.	Corporations	Profit/Loss
1	Odisha Agro Industries Corporation Ltd.	Profit making
2	Odisha State Seeds Corporation Ltd.	Profit making
3	Odisha State Cashew Development Corporation Ltd.	Profit making
4	APICOL	Profit making
5	IDCOL Software Ltd.	Profit making
6	Odisha Forest Development Corporation Ltd.	Profit making
7	Odisha Mining Corporation Ltd.	Profit making
8	Odisha Construction Corporation Ltd.	Profit making
9	Odisha Bridge and Construction Corporation Ltd.	Profit making
10	Odisha State Civil Supply Corporation Ltd.	No profit, No loss
11	Odisha Tourism Development Corporation Ltd.	Profit making
12	Odisha Power Generation Corporation Ltd.	Profit making
13	Odisha Hydro Power Corporation Ltd.	Profit making
14	GRIDCO	Loss incurring
15	Odisha Power Transmission Corporation Ltd.	Profit making
16	IPICOL	Profit making
17	Odisha State Police Housing and Welfare Corporation Ltd.	Profit making
18	Industrial Development Corporation of Orissa Ltd.	Profit making
19	Odisha Small Industries Corporation Ltd.	Profit making
20	Odisha Film Development Corporation Ltd.	Profit making
21	Kalinga Studio Limited	Profit making
22	Odisha State Medical Corporation	Loss incurring

Sl. No.	Corporations	Profit/Loss
23	Odisha Lift Irrigation Corporation Ltd.	Profit making
24	Odisha Rural Housing and Development Corporation Ltd.	Loss incurring
25	Odisha State Beverage Corporation Ltd.	Profit making
26	IDCOL Kalinga Iron Works	Loss incurring
27	IDCOL Ferrochrome and Alloys Ltd	Loss incurring
28	Odisha Pisciculture Development Corporation	Profit making
29	Odisha State Road Transport Corporation Ltd.	Profit making
30	Odisha State Ware Housing Corporation	Profit making
31	Odisha State Financial Corporation	Profit making
32	IDCO	Profit making

Source: P.E Department, Govt. of Odisha

[Annexure 4.3]

**List of Events and Seminars organize /participated by IPICOL during 01.04.2015 to 31.03.2016**

SI No	Name of the Event	Date
<b>International Road show</b>		
1	International Road show at China	September 2015
2	International Road show at Israel	January-February 2016
3	International Road show at UK	January-February 2016
<b>Domestic Events</b>		
4	Global Investors Meet, Chennai	September 2015
5	Annapuran, Mumbai	September 2015
6	Global Investors India Forum, ASSOCHAM, New Delhi.	September 2015
7	India Chem. Gujarat	October 2015
8	Biz Bridge, Kolkata	November 2015
9	Omdas' 15 Kolkata	December 2015
10	Make in India Week, Mumbai	February 2016
11	Def Expo, Goa	March 2016
<b>Domestic Events (State level)</b>		
12	Launch of IPR 2015	September 2015
13	Enterprise Odisha, Bhubaneswar	December 2015
14	WISSENAIRE, IIT Bhubaneswar	December 2015
15	TIE SV Start-up eco systems seminar, Bhubaneswar	January 2016

Source: G.M. IPICOL, Bhubaneswar

[Annexure 4.4]  
**District-wise Loans Sanctioned, Disbursement and Recovery Position  
of OSFC by the end of 2015-16**

(Rs. in lakh)

Sl. No.	District	Sanctioned		Disbursement		Recovery made	Outstanding
		No.	Amount	No.	Amount		
1	Angul	359	1317.99	359	1317.49	2948.92	263.26
2	Bolangir	1068	4048.52	1068	4047.23	3628.91	721.25
3	Balasore	1331	10073.40	1328	10004.80	15776.87	2835.41
4	Bargarh	414	1636.76	414	1636.76	1645.39	292.10
5	Bhadrak	488	2284.74	488	2284.22	1147.61	865.46
6	Boudh	225	522.84	225	522.84	617.34	61.98
7	Cuttack	4156	21410.54	4156	21365.98	28268.50	4086.89
8	Deogarh	80	287.39	80	287.39	3368.96	218.66
9	Dhenkanal	1130	2524.01	1130	2524.01	3731.76	615.04
10	Gajapati	86	651.20	86	651.20	4110.42	484.73
11	Ganjam	1693	6886.66	1693	6632.58	7310.78	1371.83
12	Jagatsinghpur	2246	3246.73	2246	3246.52	3476.35	438.70
13	Jajpur	656	7318.35	656	7317.09	3620.67	1451.32
14	Jharsuguda	395	2048.51	395	2048.51	2802.61	139.73
15	Kalahandi	736	2103.49	736	2103.49	2406.80	516.04
16	Kandhamal	515	1619.39	515	1619.06	1485.21	429.26
17	Kendrapara	1182	2533.61	1182	2533.10	12040.47	447.72
18	Keonjhar	962	4369.02	962	4369.02	6041.54	329.09
19	Khurda	2629	19490.74	2627	19190.36	31965.25	5303.69
20	Koraput	687	2601.78	688	2608.92	3209.36	309.91
21	Malkangiri	128	179.92	128	179.92	1312.79	21.22
22	Mayurbhanj	1263	4099.83	1263	4098.57	6133.41	686.83
23	Nabarangpur	224	701.83	224	701.83	1529.18	78.76
24	Nuapada	124	422.06	124	422.06	1438.90	90.49
25	Nayagarh	1266	2169.88	1266	2169.88	1158.21	756.75
26	Puri	1188	5061.69	1188	5061.69	9509.86	443.78
27	Rayagada	289	1608.44	287	1596.98	2337.00	120.10
28	Sambalpur	736	5672.73	735	5662.73	9197.50	733.35
29	Sonepur	149	65.52	149	65.52	2061.20	23.22
30	Sundargarh	1826	14802.43	1824	14720.34	23067.26	2356.88
	<b>Total</b>	<b>28231</b>	<b>131760.00</b>	<b>28222</b>	<b>130990.09</b>	<b>197349.03</b>	<b>26493.45</b>

Source: Odisha State Financial Corporation, Cuttack

# 5

## Services Sector

*Services sector emerged as the major driver of State economy of Odisha. Banking sector performed impressively as the number of banks & deposits increased notably by 5 & 11 percent respectively during 2015-16. The percent shares of advances to priority sector, agriculture and weaker sections to total advances remain higher than national benchmark norms. 88.51 lakh bank accounts were opened under PMJDY and 8.47 lakh & 31.67 lakh persons were enrolled under PMJJBY & PMSBY respectively as part of inclusive growth. Core Banking Solution for Odisha State Cooperative Bank and Central Cooperative Banks has been grounded linking 355 units of OSCB DCCBs to the Data Centre established at OSCB. 20 Banks on Wheels having ATM and Kiosk facility are being rolled out in the State with a view to providing minimum banking services to the people in hilly & inaccessible areas. State cooperative sectors added new dimension to marketing as 10 numbers of wholesale Mandis are being set up under newly launched e-platform to integrate in National Agriculture Market. Construction sector, that have similar related characteristics of services sector, expands. The share of trade, hotel and restaurants industry in the GSDP increased from 4.85 percent in 1950-51 to 11 percent in 2016-17 in real terms. A new scheme namely “Baristha Nagarika Tirtha Yatra Yojana” is launched to provide assistance to senior citizens to go on pilgrimage. Odisha Tourism policy 2016 has been announced by State Government.*

The Service Sector constitutes a large part of the Indian economy as a prominent sector in terms of contribution to national and states' incomes, trade flows, FDI inflows, and employment. The activities under the purview of the service sector are quite diverse. Trading, transportation and communication, financial, real estate and business services, community, social and personal services come within the gambit of the service industry. National Accounts classification of the services sector incorporates trade, hotels, and restaurants; transport, storage, and communication; financing, insurance, real estate, and business services; and community, social, and personal services. In World Trade Organization (WTO) and Reserve Bank of India (RBI) classifications, construction is also included. This chapter discusses Institutional finances, Tourism, Trade, Hotel & Restaurants sectors along with Construction sector.

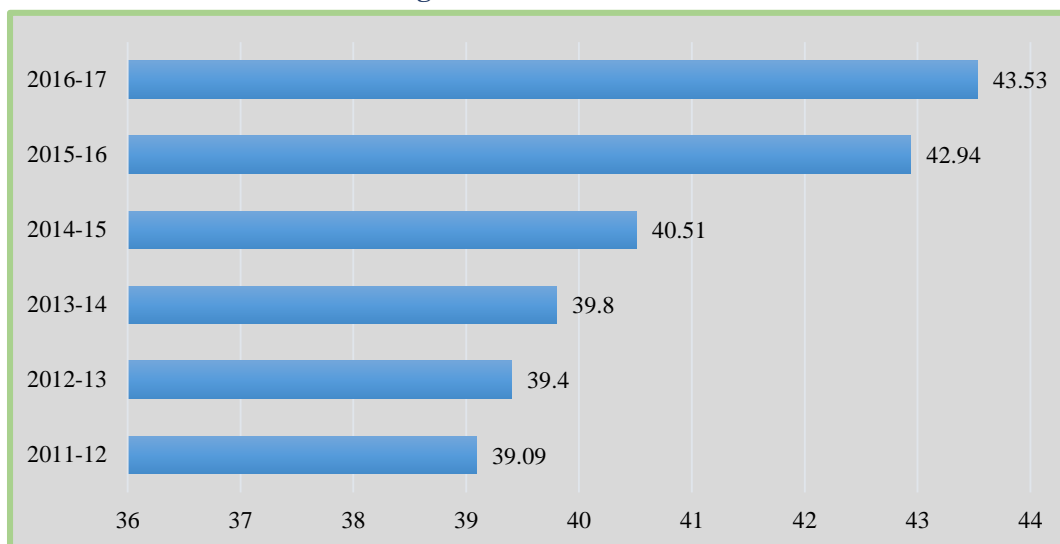
### **Services GSDP**

The size and dynamics of services sector in Odisha's economy is well pronounced with its imposing average share of 41 percent to GSDP at basic prices during 2011-12 to 2016-17 at current prices in 2011-12 bases. The sector expects to contribute 43.53 percent to GSDP of Odisha during 2016-17. The services sector in Odisha emerged as a

potential growth engine with an expected robust real growth rate of 8.08 percent during 2016-17.

The structural shift is explained by the change in structure and composition of physical production of an economy. The services led growth has been quite visible for Odisha. Among the various segments of services sector, the 'trade, hotels and restaurants' is the leading subsector with 10.99 percent share of GSDP at current prices in 2016-17 followed by other services (9.17 percent), real estate 8.12 percent and transport including Railways, storage, communication (7.34 percent) as per advance estimates for the year 2016-17. Though the share of each sub-sector reflects their direct contributions to GSDP, some of them have huge indirect contributions and multiplier effects. For instance, "transport and communication" add to infrastructure (discussed in Chapter 6), which is crucially important for any economy. By providing liquidity, "banking, insurance and financial services" support the businesses and act like the 'engine' of economic activity. In a broader sense, it can also be viewed as infrastructure. Construction adds to real capital stock, which is a major input to output growth in various sectors. Year wise share of service sector and sector wise share are shown in figure 5.1(A) and 5.1(B) respectively.

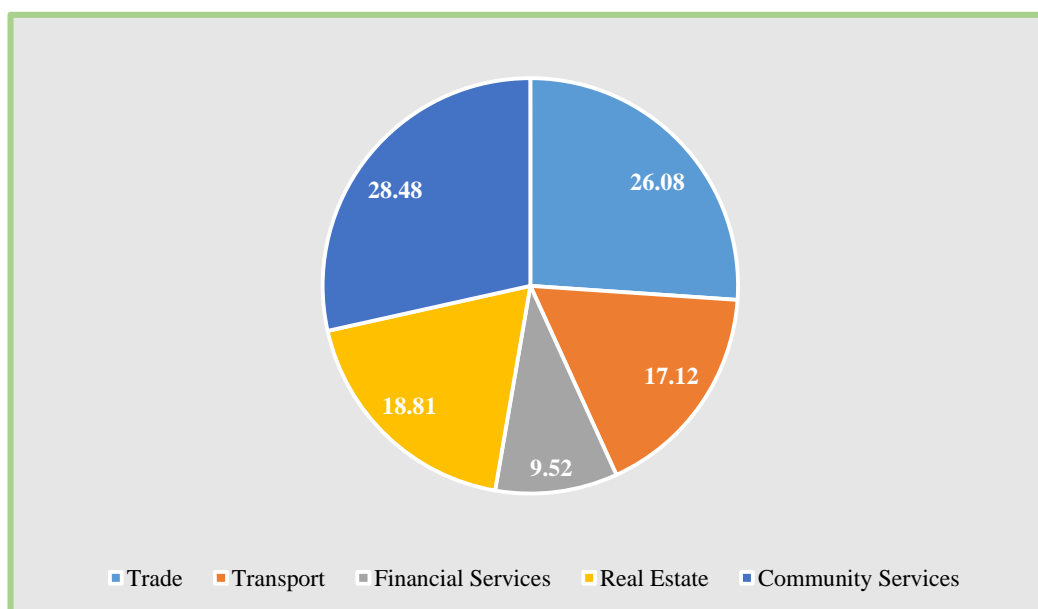
**Percentage Share of Service Sector in Odisha**



[Fig 5.1 (A)]

Source: State Income Division, DE&S, Odisha

**Share of Sub sectors of Broad service sectors to GSDP at current Prices in 2011-12 base of Odisha, 2015-16**



[Fig 5.1 (B)]

Source: State Income Division, DE&S, Odisha

### 5.1 Institutional finances

The vast network of financial institutions helps an economy to augment its savings and channel them towards efficient utilization. There has been a phenomenal growth and spread of banking services throughout the country, particularly in rural areas. Commercial banks have been directed to open

many rural and semi-urban branches and those have shouldered the responsibility for mobilizing public savings. At constant prices (2004-05), the banking and insurance sector expects to contribute 11.33 percent of GSDP of the Service Sector and a real growth rate of 12.13 percent in 2013-14 in Odisha over the previous year.

### 5.1.1 Banking Network

The extent of the Banking network in Odisha as on March, 2016 has been summarized in Box 5.1. If one defines, “bank density” as the ratio of population of the State to the total number of bank branches or the average population serviced by a bank branch, it is roughly equal to a population of 8.59 thousand. Nearly 55 percent of all bank branches are located in rural Odisha as shown in figure 5.2. To promote financial inclusion through penetration of banking services in rural areas, and to provide sustainable banking services in unbanked areas a phase wise approach has been adopted to provide door step banking facilities in all the unbanked villages in the country. Banks have covered 39928 unbanked villages having population below 2000 with provision of banking outlets as on March, 2016. Out of these villages, 446 are covered through Brick & Mortar (B&M) branches and rest by branchless modes mainly through Business Correspondence (BC) mode. The Banks increased their penetration further with the total number of ATMs reaching 6028 by end of March, 2016. Progress of banking network in Odisha from 2011-12 to 2015-16 is shown in figure-5.3.

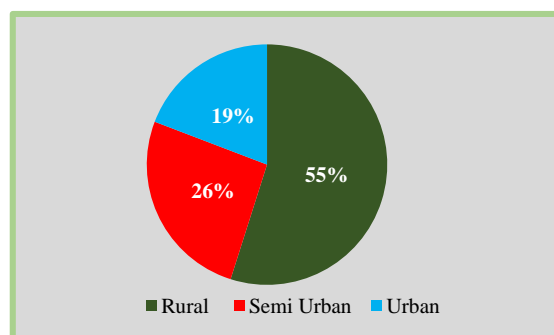
#### Bank network in Odisha, as on March’2016

Types of Banks	Number of Banks	Number of Branches
Public Sector Banks	26	3041
Private Sector Banks	15	514
Regional Rural Banks	2	991
Total Commercial Bank	43	4546
State Co-operative Banks	1	343
Total Number of Bank Branches		4889
i. Rural		2685
ii. Semi-Urban		1268
iii. Urban		936

[Box 5.1]

Source: SLBC (143<sup>rd</sup> issue)

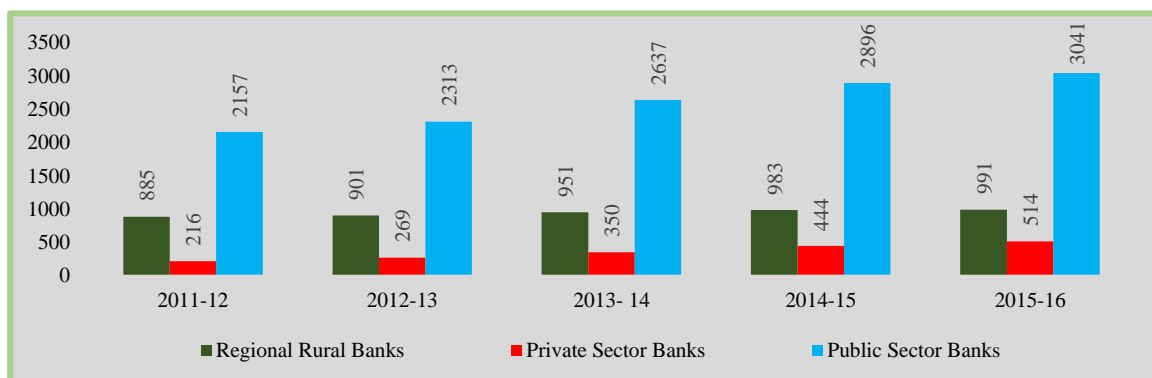
#### Distribution of Bank branches in Odisha 2015-16



[Fig 5.2]

Source: SLBC (143<sup>rd</sup> issue)

#### Progress of Banking Network in Odisha



[Fig 5.3]

Source : SLBC, (143<sup>rd</sup> Issue)

### 5.1.2 Bank Deposits, Advances and Credit Deposit Ratio

The total deposits of all banks in Odisha grew notably by 11.47 percent in 2015-16 over 2014-15. More than 96 percent bank deposits were with commercial banks, however, co-operative banks also play a pivotal role as they concentrate in rural areas and support agriculture in a strategic way.

In box 5.2 reflects the major banking indicators of 2015 and 2016. Total deposit, advances utilized and total advance sanctioned and utilized in the state shows a growth of 11.47, 14.01 and 12.57 percent respectively during 2016 over 2015. From sectoral advances point of view MSME sector advance has the highest growth of 32.8 percent during 2016 over 2015.

#### Major Banking Indicators in Odisha, As on March'2016

(Rs. in Crores)

Sl. No	Subject	As on 31 <sup>st</sup> March 2015	As on 31 <sup>st</sup> March 2016	% growth in 2015-16 over 2014-15
1	Total Deposit	196232.00	218748.65	11.47
2	Total Advance utilized	143614.00	163733.85	14.01
3	Total Advance sanctioned and utilized in the State	101963.00	114780.51	12.57
4	Priority sector advance	57876.00	73386.15	26.80
5	Agriculture advance	29957.00	38463.05	28.39
6	MSME advance	21455.04	28495.25	32.81
7	Education loan	2040.70	2294.33	12.43
8	Housing loan	8636.43	9802.86	13.51
9	Advance to Minority community	2606.88	2791.50	7.08
10	Advance to weaker section	19240.00	24334.85	26.48
11	DRI advance (Different Rate of Interest)	116.06	86.52	(-)25.45
12	% of Priority Sector Advance to Total Advance Benchmark-40%	56.76	63.94	
13	% of Agriculture Sector Advance to Total Advance (Bench Mark 18%)	29.38	33.51	
14	% of weaker section advance to Priority Sector advance. (Benchmark- 25%)	33.24	33.16	
15	CD Ratio (%) Benchmark -60 %	73.19	74.85	
16	Credit investment to Deposit Ratio	72.37	75.62	

[Box 5.2]

Source: SLBC (143<sup>rd</sup> issue)

The detail picture of Banking key indicators is presented in table-5.1 & 5.2. Public Sectors banks plays a pivotal role in the banking field comprising 62.2 percent of total bank branches, 77.6 percent of total deposits and 76 percent total advances made by all banks in the State by the end of March 2016. The CD

Ratio is highest i.e. 137.59 in case of Co-operative banks were as it was 73.31 in public sector banks by the end of March 2016. Advances to Agricultural sector dominates the advances with 24 percent followed by MSME sector with 17 percent. The bank-wise details are given in Table- 5.2.



## Bank-Wise Key Indicators at the end of 2015-16

(Rs. in Crores)

Banks	Total branches	Deposit	Advance	CD Ratio	Total Adv. to Agrl.	Adv. to MSME	Adv. to services sector	Adv. to weaker section	Adv. to DRI	Adv. to women	Adv. to SC/ST
Public Sector	3041	169714.56	124413.47	73.31	11741.11	21688.43	14321.67	11409.79	85.61	5451.54	5840.21
Private Sector	514	27809.02	21007.55	75.54	3335.47	4266.29	2055.55	1506.73	0.91	1716.49	684.68
RRBs	991	1332757	7447.01	55.88	3551.39	2436.81	1257.41	3315.40	0.00	1628.11	1375.66
RIDF (NABARD)	0	0.00	0.00	0.00	9918.58	0.0	0	0.00	0.00	0.00	0.00
Total commercial Bank Branches	4546	210851.15	152868.03	72.50	28546.55	28391.53	17634.63	16231.93	86.52	8796.14	7900.55
Total Co-operative Bank	343	7897.50	10865.82	137.59	9916.50	103.72	108.79	8102.92	0.00	7317.70	1332.39
<b>Grand Total</b>	<b>4889</b>	<b>218748.65</b>	<b>163733.85</b>	<b>74.85</b>	<b>38463.05</b>	<b>28495.25</b>	<b>17743.42</b>	<b>24334.85</b>	<b>86.52</b>	<b>16113.84</b>	<b>9232.94</b>

[Table 5.1]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha,Banking Key Indicators as on 31<sup>st</sup> March 2016

(Rs. in Crores)

Bank	Number of Branches	Total Deposits	Total Advances utilised	C.D Ratio
Allahabad Bank	97	4577.4	3864.02	84.42
Andhra Bank	173	9043.16	3819.43	42.24
Bank of Baroda	129	3676.28	3382.84	92.02
Bank of India	241	10840.78	8539.91	78.78
Bank of Maharashtra	8	385.63	76.59	19.86
Bharatiya Mahila Bank	5	19.61	9.02	46
Canara Bank	167	5495.21	4110.95	74.81
Central Bank of India	104	3274.09	5565.17	169.98
Corporation Bank	51	1992.46	1733.81	87.02
Dena Bank	19	784.88	367.35	46.8
Indian Bank	95	3187.1	2382.53	74.76
Indian Overseas Bank	131	5497.23	3871.5	70.43
Oriental Bank of Commerce	62	4610.8	5298.69	114.92
Panjab National Bank	163	5880.91	3925.68	66.75
Panjab & Sind Bank	17	967.25	801.17	82.83
State Bank of India	846	66132.86	49300.39	74.55
State Bank of Bikanar & Jaipur	5	125.39	175.81	140.21
State Bank of Hyderabad	16	943.09	284.83	30.2
State Bank of Travancore	1	120.3	67.46	56.08
State Bank of Mysore	3	48.03	220.55	459.19

Bank	Number of Branches	Total Deposits	Total Advances utilised	C.D Ratio
Syndicate Bank	101	5916.63	3207.73	54.22
Union Bank of India	126	10086.92	8288.52	82.17
United Bank of India	135	5020.1	2207.56	43.97
UCO Bank	249	17123.85	10441.79	60.98
Vijaya Bank	28	996.29	370.6	37.2
IDBI Bank	69	2968.31	2099.57	70.73
Total Public Sector Banks	3041	169714.6	124413.5	73.31
Laxmi Vilas Bank Ltd.	4	517.13	8.85	1.71
Federal Bank	25	475.85	251.46	52.84
HDFC Bank	132	6761.2	4744.59	70.17
ICICI Bank	128	5911.09	4691.24	79.36
The South Indian Bank Ltd.	2	501.5	135.04	26.93
Karnataka Bank Ltd.	8	377.32	453.24	120.12
Kotak Mahindra Bank Ltd.	16	856.65	252.81	29.51
Bandhan Bank	16	110	304	276.36
Standard Chatered	1	29.4	7.94	27.01
Axis Bank	126	9544.3	7753.09	81.23
Indus Ind Bank	26	1595.03	1221.53	76.58
Karur Vysya Bank	5	286.01	109.03	38.12
City union Bank	1	15.04	10.76	71.54
DCB Bank Ltd.	20	187.21	385.6	205.97
Yes Bank	4	641.29	678.37	105.78
Total Private Sector Banks	514	27809.02	21007.55	75.54
Odisha Gramya Bank	549	8572.52	4419.06	51.55
Utkal Gramya Bank	442	4755.05	3027.95	63.68
Total of RRBs	991	13327.57	7447.01	55.88
RIDIF (NABARD)	0	0	0	0
Total Commercial Banks	4546	210851.2	152868	72.5
Odisha State Co-Op.Bank	338	7897.5	10865.82	137.59
OSCARD Bank	5			
Total of Co-operative Bank	343	7897.5	10865.82	137.59
Grand Total	4889	218748.7	163733.9	74.85

[Table 5.2]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha, March 2016

Table 5.3 explains the year wise share of Co-operative banks and Commercial banks in total deposit, from 2004-05 to 2015-16. Share of Co-operative banks in total deposit is very meager which continuously declined from 6.38 percent during 2004-05 to 3.61 percent during 2015-16. Whereas in case of Commercial banks the same trend was increasing from 93.62 percent to 96.39 percent during the same period of time.

Bank category wise, sector-wise and major scheme wise NPA percent and overdue

percent on Odisha remain an area of great concern during 2015-16. The State had distinctly higher average NPA percent of 11.38 and over due 39.54 for all banks during 2015-16. Sectoral NPA and overdue percent is given in table-5.4. Sectorally, total priority sector, agricultural sector and MSME has NPA percent of 10-12 percent, which Agriculture term loan NPA percent of 17 percent being very high.

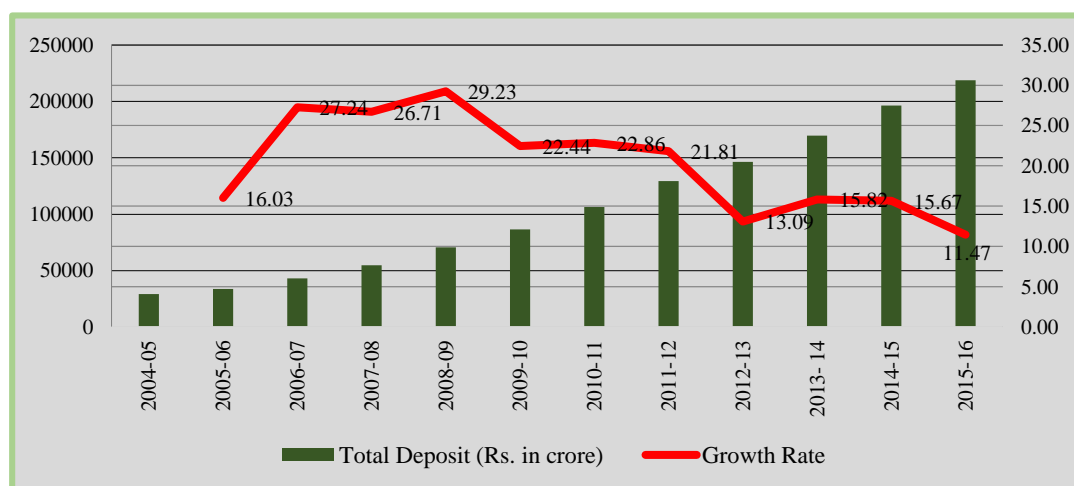
#### Share of Commercial and Cooperative Banks in Total Deposits (Rs. in Crores)

Year	Commercial Banks	Coop. Banks	Total Deposit	Share of Coop. Banks (%)	Share of Commercial Banks (%)
2004-05	27372.64	1863.49	29236.13	6.38	93.62
2005-06	31966.97	1955.75	33922.72	5.77	94.23
2006-07	41037.16	2126.8	43163.96	4.92	95.08
2007-08	52272.25	2422.06	54694.31	4.43	95.57
2008-09	67766.26	2914.3	70680.56	4.13	95.87
2009-10	82891.56	3652.63	86544.38	4.22	95.78
2010-11	102176.9	4148.32	106325.2	3.9	96.1
2011-12	124826.4	4683.99	129510.4	3.62	96.38
2012-13	140877.4	5587.77	146465.2	3.82	96.18
2013-14	162948.4	6693.72	169642.2	3.95	96.05
2014-15	189056.9	7175.05	196231.9	3.66	96.34
2015-16	210851.2	7897.5	218748.7	3.61	96.39

[Table 5.3]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha

#### Growth in Total Bank Deposits in Odisha



[Fig 5.4]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha

The total outstanding advances increased from Rs143614.00 crore as on March 2015 to Rs.163733.85crore as on March 2016, registering an increase of Rs.20119.85 crore (Box- 5.2). The year on year incremental advance growth is 14.01 percent. The priority sector advance registered a growth of 26.80 percent. Out of total advances sanctioned and utilized, the banks in Odisha extended 63.94 percent to priority sectors; 33.51 percent to agriculture sector and 33.16 percent to weaker sections in 2015-16 as against the national benchmark norms of 40 percent, 18 percent and 25 percent respectively.

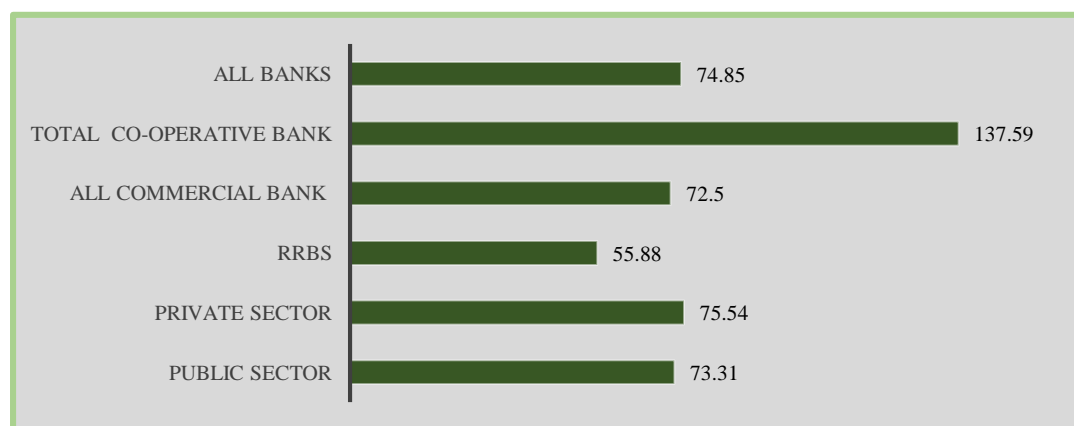
### Credit-Deposit Ratio (CD Ratio)

Credit Deposit Ratio is the proportion of loan created by banks from deposits it receives, in other words it is capacity of banks to lend. High ratio indicates banks are generating more credit from its deposits and vice versa. The national norm of benchmark CD ratio in India is maintained at 60 percent. Box 5.2 reveals that the credit deposit ratio in the year 2015 - 16 is 74.85 which is an increasing trend over the period and in 2014-15 it was 73.19. CD ratio of Commercial Banks is 72.50 percent, whereas CD ratio of Cooperative banks is 137.59 percent. CD ratio can be measured either basing on total utilization (including sanctioned in outside State) or basing on advance sanctioned and utilized in the State.

Usually the CD Ratio is measured basing on first approach in order to ensure comparability with national and other states. As per the 1st approach, the cooperative banks in Odisha have much higher CD Ratio of 137.59 percent followed by private sector banks (75.54 percent), public sector banks (73.31 percent), and RRBs (55.88 percent) during 2015-16. This speaks of high risk advances made by cooperative banks in the State (Figure 5.5). Year wise C.D ratio of Public sector banks from 2008-09 to 2015-16 is given in Figure 5.6.

Based on the second approach (Basing on advances sanctioned and utilized in the State), the CD ratio of six districts of the State namely Bargarh, Balasore, Bhadrakh, Boudh, Kalahandi and Subarnapur are higher than the benchmark of 60 percent during 2015-16 whereas eleven districts namely Deogarh, Gajapati, Ganjam, Kandhamal, Kendrapada, Jagatsinghpur, Malkangiri, Mayurbhanja, NuapadaPuri and Sambalpur whose CD ratios are below 40 percent need to take priority steps to improve it. Sambalpur and Bargarh districts have registered lowest (15.38 percent) and highest (79.94 percent) CD Ratio respectively. As per this approach the CD Ratio for rural sector is 63.69 whereas for semi urban and urban sector is 45.71 and 50.24 respectively.

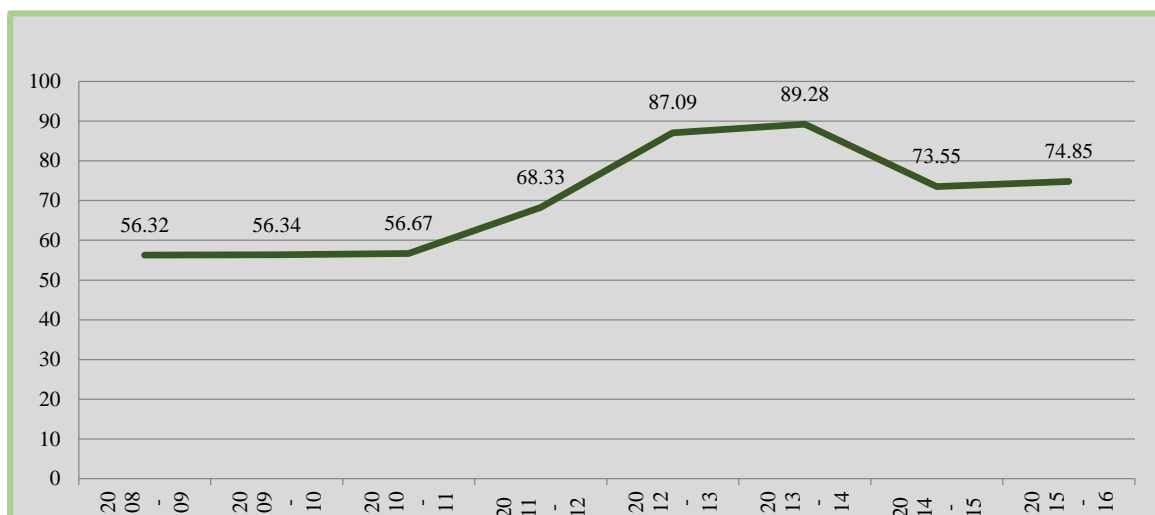
### CD Ratio of Banks Odisha



[Figure 5.5]

Source : SLBC, (143<sup>rd</sup> Issue)

## Trend in CD Ratio of Public Sector Banks in Odisha



[Fig 5.6]

Source : SLBC, (143rd Issue)

## 5.1.3 Non Performing Asset (NPA)

An Asset including a leased asset becomes nonperforming when it ceases to generate income for the bank.

Non Performance Asset (NPA) (in percent) in Odisha, As on March 2016

Subject	Public Sector Banks	Private Sector Banks	RRBs.	Cooperative Banks	Total
NPA %	12.67	0.57	23.04	6.67	11.38

[Box 5.2]

During 2015-16 Gross NPA and Overdue percent of the State is 11.38 percent and 39.54 percent which is at much higher side and alarming. With regard to Govt. sponsored schemes, the NPA and Overdue percent is too high. RRBs had the highest NPA percent of 23.04. Scheme wise NPA percent ranged between 17-37 percent among PMEGP/PMRY, SHG, NULM and Weaver credit card Schemes during 2015-16. The NPA percent ranging between 7-17 percent in all major sectors advances and overdue ranging between 33-57 percent in all major schemes advances are matter of critical concern. NPA and overdue badly affect the productive recycling of funds. Introduction of a dynamic

recovery mechanism will promote reinvestment and ensure better recycling of funds by banks to a great extent. Detail is given in Table 5.4.

The State Government are emphasizing upon an all-out efforts which includes efforts by the bank administration and recovery mechanism system to correct the health position of the loan assets and bring NPAs down to improve recovery performance substantially of the State.

## Sector wise Non-Performing Assets (NPA) &amp; overdue percent as on 31st March 2016

Sl. No	Sector	NPA %	Overdue %
1	Short term Crop Loan	8.54	38.06
2	Agricultural Term Loan	16.97	50.14
3	Agriculture Allied	8.02	44.83
4	Total Agriculture	9.88	39.41
5	MSME Sector	12.55	44.57
6	Education Loan	12.51	56.57
7	Housing loan	6.57	32.95
8	Total priority Sector	11.04	41.94
9	Total Advance	11.38	39.54

[Table 5.4]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha

### 5.1.4 Annual Credit Plan (ACP)

Banks in the State are not totally unregulated in granting loans. The District Level Coordination Committee (DLCC) for each district prepares the Annual Credit Plan (ACP) under the leadership of NABARD. As per the

ACP, banks extend loans to priority sectors. During 2015-16, Rs. 41970.80 crore of loan assistance was provided through banks in Odisha, which is about 87.88 percent of the target fixed under ACP for the year. The sector wise achievement under ACP 2015-16 is given in Table 5.5.

#### Target and Achievement under Annual Credit Plan (ACP) 2015-16

(Rs. in Crores)

Sl. No	Name of the Sectors		Total public sector Banks	Total Private sector Banks	Total RRBS	Total Commercial Banks	Total Co-operative Banks	Grand Total
1	Agriculture + Allied	T	10351.13	996	4801.78	16148.91	10077.17	26226.09
		A	7108.68	1955.62	1477.17	10541.48	11107.54	21649.01
		%	68.68	196.35	30.76	65.28	110.22	82.55
2	MSME	T	8687.35	1445.12	1575.62	11708.09	295.2	12003.29
		A	11981.32	1842.27	1588.03	15411.62	32.72	15444.34
		%	.137.92	127.48	100.79	131.63	11.08	128.67
3	Education	T	883.47	111.15	187.43	1182.05	18.44	1200.49
		A	266.77	3.42	2.62	272.8	0	272.8
		%	30.2	3.07	1.4	23.08	0	22.72
4	Housing	T	1945.61	244.33	404.41	2594.34	71.2	2665.54
		A	1971.08	225.37	100.15	2296.61	6.65	2303.26
		%	101.31	92.24	24.76	88.52	9.34	86.41
5	Others	T	4035.1	448.13	881.65	5364.89	296.83	5661.72
		A	980.27	54.65	1101.33	2136.25	165.15	2301.39
		%	24.29	12.19	124.92	39.82	55.64	40.65
6	Totals	T	<b>25902.66</b>	<b>3244.74</b>	<b>7850.89</b>	<b>36998.29</b>	<b>10758.84</b>	<b>47757.13</b>
		A	<b>22308.12</b>	<b>4081.33</b>	<b>4269.3</b>	<b>30658.75</b>	<b>11312.06</b>	<b>41970.8</b>
		%	<b>86.12</b>	<b>125.78</b>	<b>54.38</b>	<b>82.87</b>	<b>105.14</b>	<b>87.88</b>

[Table 5.5]

N.B:- T- Target, A- Achievement, %- Percentage.

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha, March 2016

### 5.1.5 Co-operative Banks

The Cooperative Banking structure has a unique position in the rural credit delivery system in India. The Cooperative banking sector has made significant strides in the field

of rural credit through its short term and long term structures which continue to play a crucial role in dispensation of credit for agricultural activities and rural development.

The Cooperative Banking dispense with both farm and non-farm credit in the State by three institutional networks namely,

- (a) Short-term co-operative credit,
- (b) Long-term co-operative credit, and
- (c) Urban Co-operative Banks.

#### Short-term Co-operative Credit Sector

The Short-term Co-operative Credit Sector in our States plays a vital role by providing financial credit support for agricultural cooperation including purchase of agricultural inputs like certified high yielding varieties of seeds, fertilizers, pesticides and agricultural implements . It also renders assistance for storage and marketing of agricultural produce and helps members to get remunerative prices for their produce. Primary Agriculture Cooperative Societies (PACS) take the lead

role in providing short term cooperative credit to small & marginal farmers and the marginalized sections of society. The recommendations of the Vaidyanathan Committee have been implemented for revitalization of this sector. The revitalization package envisaged financial assistance in the shape of recapitalization to the PACS, and District Co-operative Central Banks. The three tier Short-term Co-operative Credit structure consists of 2708 Primary Agriculture Cooperative Societies (PACS) including 214 Large Sized Adivasi Multi-Purpose Cooperative Societies (LAMPCS) and 6 Farmers Services Co-operative Societies (FSCS), 17 District Central Cooperative Banks with 341 branches and the Odisha State Cooperative Bank with 14 branches at the apex level. The details are given in Table 5.6 & 5.7.

#### Progress of the Cooperative Movement in Odisha

Year	Number of Cooperative Societies Functioning	Membership in lakhs	Working Capital (in crores of rupees)
2004-05	4636	62.18	1952.27
2005-06	4626	62.94	11459.73
2006-07	4565	63.55	12748.33
2007-08	4336	64.85	14043.22
2008-09	4276	66.88	16097.58
2009-10	4260	70.22	20198.52
2010-11	4245	71.79	23268.42
2011-12	4267	76.03	27682.93
2012-13 (P)	4268	77.05	30012.54

[Table 5.6]

*N.B: Figures relate to societies functioning under RCS, Odisha  
Source : Register Co-operative Society, Odisha*

### Membership, Working Capital and Advances of primary Agricultural and Non-Agricultural Credit Cooperative Societies in Odisha

Year	Membership (in thousands)		Working Capital (in lakhs of rupees)		Loans Advanced (in lakhs of rupees)		Loans Outstanding (in lakhs of rupees)	
	Agri	Non-Agri	Agri	Non-Agri	Agri	Non-Agri	Agri	Non-Agri
2004-05	5215	951	253058	107288	120806	103815	128054	59419
2005-06	5367	929	282609	109998	142658	119079	150122	63081
2006-07	5281	1075	312767	113513	153172	122415	166910	64151
2007-08	5519	967	346602	129086	146304	136595	186284	67161
2008-09	5623	964	356764	152333	158394	167912	159615	80927
2009-10	5924	1082	442962	175383	277038	168144	234610	89221
2010-11	5874	374	543786	184933	353417	157272	302601	90267
2011-12	6254	422	673367	202604	452266	162236	378306	106025
2012-13(P)	6325	425	774372	218812	552665	172545	450842	114560

[Table 5.7]

Source: Registrar, Co-operative Societies, Odisha

- By end of 2015-16 PACS have enrolled 55.45 lakh of agricultural families as its member in Odisha.
- The Crop loan finance by PACS in the State was 59.48 percent (Table 5.8).
- There has been a quantum jump both in the membership and amount of finance through

Cooperative network. The loans disbursed increased to Rs. 9572.22 Crore in 2015-16 from 8351.11 Crore in 2014-15 registering a growth of 15 percent in respect of the amount of finance and 5.7 percent in respect of number of farmers as compared to 2014-15.

### Market Share of Commercial and Cooperative Banks in Dispensing Crop Loan

(Rs. in crores)

Year	Commercial Banks	Cooperative Banks	Total	Market share of Cooperative Banks (%)	Market share of Commercial Banks (%)
2006-07	939.42	1554.26	2493.68	62.33	37.67
2007-08	875.02	1501.02	2376.76	63.15	36.85
2008-09	764.13	1489.46	2253.59	66	34
2009-10	1432.83	2682.17	4115	65	35
2010-11	1877.52	3396.39	5273.64	64.4	35.6
2011-12	2270.13	4415.89	6686.2	66.05	33.95
2012-13	3175.67	5426.49	8457.02	62.45	37.55
2013-14	3103.86	7096.7	10200.50	70	30
2014-15	4590.89	8351.11	12942.00	65	35
2015-16	6520.9	9572.22	16093.12	59.48	39.52

[Table 5.8]

Source : Registrar Co-operative Society, Odisha



### Season-wise Dispensation of Short-Term Credit by Cooperative Banks in Odisha

(Members in lakhs and amount in Rs. Crore)

Year	Kharif Members	Kharif Amount	Rabi Members	Rabi Amount	Total Members	Total Amount
2006-07	7.3	837.47	5.74	721.7	13.04	1559.16
2007-08	7.21	899.24	4.44	602.5	11.65	1501.74
2008-09	4.65	546.41	7.04	943.05	11.69	1489.46
2009-10	10.11	1407.82	8.21	1274.35	18.32	2548.7
2010-11	11.26	1811.09	9.1	1585.3	20.36	3396.39
2011-12	13.07	2381.37	10.39	2034.52	23.46	4415.89
2012-13	13.66	2902.75	11.41	2523.74	25.07	5426.49
2013-14	15.26	3624.29	13.52	3472.35	28.78	7096.64
2014-15	16.21	4386.82	14.08	3964.29	30.29	8351.11
2015-16	17.35	5077.41	14.66	4494.80	32.01	9572.22

Table 5.9]

Source: Registrar cooperative Societies, Odisha

#### Long-term Co-operative Credit Sector

The long-term credit co-operative sector is two-tiered, consisting of the Odisha State Co-operative Agriculture and Research Development (OSCARD) Bank at the Apex and 46 Primary Co-operative Agricultural and Rural Development (CARD) Banks at primary level. But the finance in terms of Long term sector has been stopped since long as the NABARD has also stopped the line of credit to OSCARD Bank. The State Government is contemplating for merger of Long term sector with short term sector.

#### Urban Co-operative Banks

At present, 10 Urban Cooperative Banks are functioning in the State and providing finances for self-employment to un-employed youth and other minimum banking services like acceptance of deposits in urban and semi urban areas and disbursement of loans to Artisans, small business units etc. The State Government have provided Rs. 11.00 crores

for computerization of Urban Banks and its branches. The deposit mobilization and loans advanced by these banks are given in Table 5.10 & 5.11.

#### Deposits Mobilized and Loan advanced by Urban Cooperative Banks in Odisha

Year	Deposits mobilized (in crores of Rs.)	Loan advanced (in crores of Rs.)
2006-07	625.23	421.23
2007-08	615.02	415.43
2008-09	840.52	495.37
2009-10	944.48	566.21
2010 -11	992.92	533.13
2011-12	1065.95	613.74
2012-13	1130.52	596.69
2013-14	1172.03	601.66
2014-15	1092.07	613.77
2015-16	1126.26	622.01

[Table 5.10]

Source: R.C.S, Odisha.

## Trend in Agriculture Credit Outstanding (Excluding RIDF)

(Rs. In Crores)

Name of the Banks	Year							
	31.03.2013	Share in %	31.03.2014	Share in %	31.03.2015	Share in %	31.03.2016	Share in %
<b>Commercial Bank</b>	11249.19	58.35	11240.24	52.83	11716.58	52.53	15076.58	52.82
<b>RRBS</b>	2377.35	12.33	2966.01	13.94	3195.74	14.32	3551.39	12.44
<b>Co-operative bank</b>	5649.54	29.32	7070.13	33.23	7390.73	33.15	9916.5	34.74
<b>Total</b>	19276.08	100	21276.38	100	22303.05	100	28544.47	100

[Table 5.11]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha**The Agriculture term loan**

The agricultural term loan otherwise called investment credit is open to both farm sector and non-farm sector for agriculture & allied purposes, capital investment, asset creation, land improvement, farm mechanisation,

plantation, horticulture & other activities. During 2015-16 a sum of 246.23Crores have been provided as term loan to 34500 members which is increased by 47.89 percent in number of members, and the total amount disbursed increased by 44.90 percent during 2015-16 over 2014-15 (Table 5.12).

**Investment Credit in Odisha by Cooperative**

Year	Farm sector (Nos.)	Farm sector amount (in Rs. crore)	Non-farm sector (nos.)	Non-farm sector amount (in Rs. crore)	Total (nos.)	Total amount (in Rs. crore)
2006-07	10766	39.38	19030	39.93	29796	79.3
2007-08	17123	56.44	19421	47.16	36544	103.6
2008-09	23133	84.43	20169	74.33	43302	158.76
2009-10	21517	104.17	25089	95.58	46606	199.75
2010-11	27542	151.34	22181	109.77	49723	261.11
2011-12	21677	114.79	17621	121	39298	235.79
2012-13	14738	93.07	11269	75.2	26007	168.27
2013-14	15872	101.25	9662	61.79	25534	162.94
2014-15	14946	108.23	8382	61.7	23328	169.93
2015-16	22759	143.71	11741	102.52	34500	246.23

[Table 5.12]

Source: Registrar cooperative Societies, Odisha.

### Linking paddy procurement with credit

Cooperatives have taken initiatives in linking credit with procurement & marketing of agricultural produce to enable farmers to get remunerative prices for their agricultural produce. PACs and LAMPs and OSCSC Ltd. have played a crucial role in paddy procurement. This has helped farmers to get minimum support price for paddy. 2438 PACS, as commissioned agents of the Odisha State Civil Supply Corporation, have procured 47.45 lakh MT of paddy from 1014824 farmers through 2912 paddy procurement Centres (PPCS) during 2015-16. Besides, MARKFED as state agency procured paddy to the tune of 1.69 Lakh M.T from 17341 farmers. Paddy procurement automation system (P-PAS) is being implemented at PACs level in 160 P-PAS blocks during 2015-16 with a view to streamlining paddy procurement operation.

### Self Help Groups (SHG)

It plays a pivotal role in fostering social and economic empowerment of under privileged and empowerment of women and rural poor in particular. To extend institutional credit to the poor and marginalized sections, a bank linkage Programme for Self Help Groups (SHGs) has been put in place since 2003-04 through PACS and DCCB branches. 83720 such groups have been organized by the end of 2015-16. Credit support of Rs 368.94 crore has been provided to 65,916 groups.

### Credit Linkage to Tenant Farmers Groups (TFG)

For providing access of share croppers and oral lessees' to institutional credit for agricultural operations, Odisha has taken the lead in organizing exclusive Self Help Groups for them with a 1:10 deposit credit ratio facility, in place of the regular 1:4. 9,629 such

groups were formed and 7555 nos. of groups were provided credit, amounting to Rs. 51.57 crore by Co-operative Banks at the end of 2015-16.

### Implementation of Interest Subvention Scheme

To reduce the interest burden on farmers GOI and State Govt. are providing subsidy on rate of interest ST SAO (Short Term "Seasonal Agricultural Operations) loan. Initially the scheme was introduced by GOI in 2006-07 by providing ST SAO loan to farmer members @ 7 percent interest. During Rabi 2008-09 the State Government provided further interest subsidy of 2 percent and ultimately the farmers are provided crop loan at 5 percent interest rate. Besides Govt. of India has declared 3 percent incentives to farmers in case of timely repayment of loan. Thus, in such cases the effective rate of interest on crop loan in case of farmer members of PACS is 2 percent. Further Govt. have proposed to reduce the rate of interest to 1 percent. During 2015-16 the State Govt. have provided Rs.323.38 crore towards interest subvention.

### Credit Linkage to "Share Croppers and Oral Lessees" through Joint Liabilities Groups (JLGS)

Odisha has taken the lead in organizing exclusive Self Help Groups for providing access to Institutional Credit operations to Joint Liabilities Groups (JLGS):. 63367 no. of groups were formed and 63711 groups were provided credit amounting to Rs. 331.87 Crore by cooperative Banks at the end of 2015-16. For 2016-17 a target has been fixed for organizing 50000 JLGs in the State with Credit linkage with cooperative banks.

### Computerization of PACs

The PACs of the State are being computerized as a part of the existing Co-operative Banking

Society (CBS) to ensure complete integration of all the three tiers of short-term Co-operative Credit Sector (STCCS). The PACs will be connected to the Data Centre of OSCB so that the Real Time Data with regard to the transaction of PACs can be available at the State Level for policy intervention. The computerization process is in progress for 2544 PACs. The state Government have provided Rs.48.77 crores for the purpose.

### **Core Banking Solution**

The OSCB has taken the lead to implement Core Banking Solution to automate its operation together with the affiliated Central Cooperative Banks. The integrated Core Banking Solution (CBS) project is set to come to NPCI platform for connecting its ATMs to the network for providing access to its customers to all the outlets of commercial Banks. Besides, 20 mobile ATMs are being provided in 20 number of tribal blocks of the State to provide door step banking services in the area. The Kisan Credit cards are also being converted to RuPay Debit cards which will be linked to NPCI platform enabling the farmer members of the PACs to access their credit limit through ATM and PoS network in the National payment gateway NPCI. The State Government have provided Rs.44.00 crores for bringing out 355 units of OSCB and DCCBs into the CBS platform. The implementation of the project has been completed and presently all the units have been brought under the Core Banking Solution platform.

### **5.1.6 Credit Cards**

#### **(A) Kisan Credit Cards (KCC)**

The scheme aims at providing instant timely adequate and hassle free credit to farmers on the basis of their land holding ,cropping pattern and scale of finance under the

scheme.4077837 lakh Kisan Credit Cards (KCC) have been issued to farmers By the end of 2015-16. Out of which 3197203 (78.40 percent) were issued by cooperative banks and the balance by commercial banks.

#### **(B) Kalinga Kissan Gold Cards (KKGC)**

With a view to motivate members for timely repayment of loans, Kalinga Kissan Gold Cards (KKGC), an innovative scheme, was designed by the Odisha State Cooperative Bank, and introduced in 2001. Farmers who are members of PACS with a default-free status for at least two years are eligible under this scheme. Through KKGC, a farmer gets facilities like consumption and educational loans with less interest, free personal accident insurance etc. At the end of 2015-16, KKGC were issued to 2, 57,891 members and number of valid card holders at the end of 2015-16 comes to 1, 16,817.

#### **(C) Swarozgar Credit Card & Artisan Credit Card**

This credit card aims at providing timely and instant credit, as working capital and block capital – for self-employment and income generating activities. It targets small artisans, handloom weavers, fishermen, self-employed persons, rickshaw owners and other micro entrepreneurs. During 2015-16, total 6771, Swarozgar Credit Cards amounting to Rs.20.54 crore were issued by all banks except Private Sectors banks.509 Artisan Credit Cards amounting to Rs 3.38 crore were issued by different Public Sector banks and RRBs During 2015-16. Under Co-operative sector as against 5000 target; 3189 Swarozagar Credit Card holders have been financed amounting Rs.12.85 Crore during 2015-16. The details are given in Table 5.13

### Credit Cards issued by Commercial Banks during 2015-16

Credit Card	Credit Card issued	Amount (Rs. in crore)
Artisan Credit Cards	509	3.38
Weavers Credit Card	2611	8.74
Kissan Credit Cards	4077837	13632.8
Swarozgar Credit Cards	6771	20.54

[Table5.13]

Source: 143rd Issue, State Level Bankers' Committee, Odisha

#### 5.1.7 National Agricultural Insurance Scheme (NAIS)

National Agricultural Insurance Scheme is being implemented in our state since Rabi 1999-2000. The objective of the scheme is to provide insurance coverage and financial support to the farmers in the event of failure of any notified crop as a result of natural

calamities, pests and diseases etc. A State Level Coordination Committee on Crop Insurance (SLCCI) has been constituted for monitoring and overseeing smooth implementation of the Scheme Cooperation Department is the Nodal Department in our State to implement the crop insurance scheme. A State Crop Insurance Fund (SCIF) has been created to meet the State share of liabilities like state share of premium subsidy, state share of claims, state share of bank services charges etc. Kharif 2015 Paddy, Groundnut, Maize, Niger, Cotton, Red gram, Jute, Turmeric, Ginger and Banana and during Rabi 2015-16– Paddy, Groundnut Mustard, Potato, Black gram & Green gram are covered under the scheme. Farmers growing the notified crops in the notified area are eligible for coverage under the scheme provided they opt for crop loan. For loanee-farmers, the scheme is compulsory and for non-loanee it is optional. Gram Panchayat have been adopted as unit of insurance in respect of paddy since Rabi 2010-11 Season. The detail achievements are given below in Table 5.14.

#### Achievement under NAIS

Year	Season	Farmers covered	Premium collected	Claims settled	Farmers benefitted
2010-11	Kharif-2010	1107710	47.07	47.07	213325
	Rabi-2010-11	34676	1.5	0.74	2941
2011-12	Kharif-2011	1443256	74.42	688.99	606571
	Rabi-2011-12	69150	4.24	0.99	1289
2012-13	Kharif-2012	1446021	79.55	61.17	87448
	Rabi-2012-13	76983	5.75	5.43	12068
2013-14	Kharif-2010	1309088	85.57	397.41	373184
2014-15	Kharif-2013	1800908	133.73	255.35	175680
	Rabi-2014-15	117582	9.75	7.97	10575

[Table 5.14]

Source: Registrar Cooperative Society, Odisha

### **Pradhan Mantri Fasal Bima Yojana**

The Pradhan Mantri Fasal Bima Yojana (PMFBY) is a path-breaking scheme which aims to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases. It also aims at stabilising the income of farmers to ensure their continuance in farming. Further, it encourages farmers to adopt innovative and modern agricultural practices, to ensure flow of credit to the agriculture sector. This scheme has been introduced throughout the country from Kharif 2016 substituting the earlier crop insurance schemes. It has got some distinct characteristics like uniformity in farmer's premium rate for cereals, food crops & commercial crops. It covers more number of risks compared to earlier crop insurances schemes. The different risk covered are namely prevented sowing, standing crop, mid-session adversity, localized and post-harvest losses. The insurances companies are selected as implementing agencies on the basis of bidding process. Different committees have been constituted from state level to block level for smooth implementation of the scheme.

### **Setting of National agricultural marketing through e-platform**

Govt. of India is contemplating to set up National Agriculture Market through e-platform by intending important agriculture produce market in the country for providing remunerative price to the agriculture producers and accessibility to a wider market across the nation. National Agriculture Market (NAM) is a pan-India electronic trading portal which networks the existing Agricultural Produce Marketing Committee (APMC) mandis to create a unified national market for agricultural commodities.

10 numbers of wholesale mandies are to be set up in the state for setting up e-platform to integrate in National Agriculture Market to provide better alternatives to the producers of agricultural produces. These identified markets will be set up under the scheme "Agri. Tech Infrastructure Fund" which will be coming under e-platform. It is expected that more numbers of agricultural produce will be gradually included which will be having the wider reach of our farmers. The scheme is to be implemented by Odisha State Agricultural Marketing Board.

### **5.1.8 Bank Assistance to Non-agricultural Sectors**

#### **Housing**

Banks also provide housing loans, under different loan schemes. During 2015-16 financial year total amount disbursed under housing loan amount to Rs.2303.26 crores, benefiting 29954 number of account holders. Out of the disbursed amount 85.6 percent (Rs 1971.08 crore) have been disbursed by total public sector Banks.

#### **Fisheries**

Financial assistance for pisciculture development is being given in the State through a centrally sponsored scheme "Fish-farmer's Development Agencies "(FFDAs). A total of 30 FFDAs are functioning one in each district. As on 31st March 2016, Rs.92.17 crore loan have been disbursed by different banks of Odisha to 11181 beneficiaries.

#### **Odisha Livelihood Mission (OLM)**

Poverty eradication program runs on a mission mode having focus to create sustainable livelihood opportunities for the rural poor households and nurture till they are come out of poverty and lead a quality life. This is a centrally sponsored scheme with a

proportionate ratio of 60:40 between Centre & State. OLM has put in place a dedicated and sensitive support structure, to take the rural poor households out of poverty line through capacity building, financial assistance and self-reliant institutions. Odisha Livelihoods Mission commenced its functioning in year 2012. Subsequently World Bank aided TRIPTI project has been merged into OLM since the mandate of TRIPTI was very much similar. OLM has reached out to 30 districts in Odisha through both intensive and non-intensive approach

### **National Rural Livelihoods Mission (NRLM)**

It was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. In Odisha, the centrally sponsored programme Swarn aJayanti Gram Swarajgar Yojana (SGSY) has been restructured as National Rural Livelihoods Mission (NRLM). In Odisha, the scheme is being implemented by Odisha Livelihoods Mission (OLM), Panchayati Raj Department for enhancing the socio-economic condition of the rural poor through promotion of sustainable community based institutions. The targeted poor households are mobilized into Self Help Groups (SHGs) which are in turn federated into higher level institutions at village as Cluster Level Forum (CLF) and GP level Gram Panchayat Level Federation (GPLF).

The Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services.

OLM has worked in 24 districts covering 88 blocks under intensive approach during the FY

2015-16. The remaining 226 blocks of the state are considered as non-intensive blocks where normal activity like Financial Inclusion, Livelihoods Intervention, Skill enhancement through DDU-GKY (Deen Dayal Upadhyaya Grameen Kaushalya Yojana) and entrepreneurship development program through RSETIs are being implemented. The non-intensive blocks will be covered under the intensive approach in a phased manner. NRLM is working with 2,92 lakh SHGs. 149 new (Cluster Level Forum) CLFs have been formed and 5475 SHGs have been linked to CLFs in 2015-16. In total 10663 CLFs have been formed and 102990 SHGs have been linked with CLFs by March 2016. SHGs have been linked with these CLFs. 9106 SHGs have been availed with 12.60 cr towards financial assistance to the SHGs especially to the poor and extremely poor and vulnerable SHGs in 2015-16. 58,113 SHGs have been credit linked amounting Rs.682 Cr. OLM is facilitating effective linkage of SHGs with banks.

### **National Urban Livelihoods Mission (NULM)**

Government of India launched the National Urban Livelihoods Mission (NULM) on September 23, 2013 to reduce urban poverty on a mission mode. The programme has replaced the erstwhile SJSRY scheme. However, unlike SJSRY, which covered all towns of the State, only cities/towns with one lakh or more population and district headquarters towns are covered under NULM. Based on this criterion, 33 ULBs consisting of all the district headquarters and ULBs having one lakh and above population are covered under NULM in Odisha. To address the concerns of the ULBs not covered under any central/state government schemes on poverty reduction and livelihoods, a new state level mission named "Odisha Urban Livelihoods Mission (OULM)" was launched on 1st April

2015. The Mission aims at reducing poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities.

Under Self-employment Component 666 individual beneficiaries have been provided with bank loan of Rs 6,30,94,708/-. Besides under SEP (Group) 60 women groups have been provided with bank loan of Rs 1,22,76,000/-. 72 nos of SHGs have been made linkages with Banks with a loan amount of Rs 1,22,97,000/-. Interest subsidy of Rs 4,67,922/- under SEP (I) and Rs 69,307/- under SEP (G) have been utilised so far during 2015-16.

### Credit Facility to Minority

Rs.344.93 crore have disbursed to 37354 minority account holders by all commercial banks in Odisha during the financial year 2015-16. In this process the public sector banks play a pivotal role contributing 75 percent and Private Sector banks constitutes only 21 percent where RRBs only 4 percent.

### 5.1.9 Recovery Position of Banks

Despite several initiatives, the recovery of loans has not been satisfactory during 2015-16. It remains as a major impediment to the expansion of banking. But during 2015-16 (up to March 2016) the recovery position of all banks recovered and increase to 60.46 percent which was 56.35 percent during the year 2014-15. Detail is given in Table-5.15.

#### Overall Recovery Scenario of all Banks in Odisha

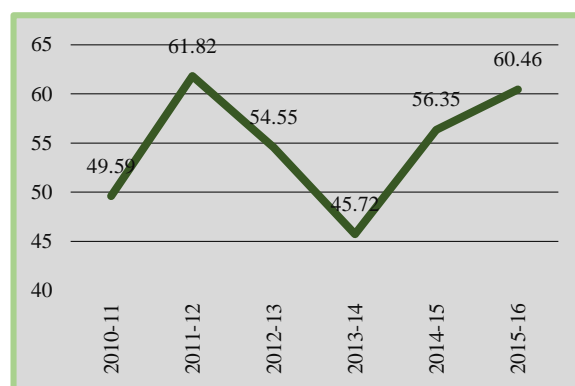
Year	% of Recovery	% of Over Dues
31.03.2011	49.59	50.41
31.03.2012	61.82	38.18
31.03.2013	54.55	45.45
31.03.2014	45.72	54.28
31.03.2015	56.35	43.65
31.03.2016	60.46	39.54

[Table 5.15]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha

Figure 5.7 shows the year wise position of recovery of all banks in Odisha from 2011 to March 2016. During 2012 the recovery position is slightly better than that of other years. As on March 2016 the recovery of all banks in Odisha being 60.46 percent which is slightly better but not satisfactory and again it increases the non-performing assets (NPA) and adversely affects the profitability. Sector wise NPA percentage is given in Table-5.4. The NPA percent of the state is 11.38 which is at a higher side and alarming. Among all sector NPA of Agriculture is highest i.e. 16.97 followed by MSME sector (12.55).

#### Trend in Recovery Rate (%) of Banks in Odisha



[Fig 5.7]

Source: SLBC (143<sup>rd</sup> Issue)

#### Recovery Position of Govt. Sponsored Schemes

(As on 31<sup>st</sup> March 2016)

Schemes	% of Recovery	% of Overdue
SHG	57.94	42.06
PMRY	29.21	70.79
SJSRY	30.42	69.58
WCC	26.03	73.97

[Table 5.16]

Source: 143<sup>rd</sup> Issue, State Level Bankers' Committee, Odisha



### 5.1.10 State-level Non-banking Financial Institutions

#### Odisha State Financial Corporation (OSFC)

This is the largest non-banking, State Government-owned financial institution, providing financial assistance for the establishment of small and medium scale industries in different sectors of the State's economy. By the end of 2015-16, OSFC sanctioned loan amounting to Rs 1317.60crore in favour of 28,231 cases and disbursed Rs 1,309.90 crore to 28,222 units. The corporation recovered Rs1973.49crore during 2015-16 and Rs.264.93crore remained

outstanding by the end of March, 2016. Its activities have been detailed in Chapter 4.

#### Odisha Rural Housing and Development Corporation (ORHDC)

The ORHDC was established in 1994 with an aim to provide finance to rural poor for construction of their dwelling units. As on 31st March 2016, the corporation has released Rs.566.85 crore for construction of 1,62,458 units under six rural housing schemes and recovered Rs.557.91 crore against total demand of Rs.1843.38 crore, showing the percentage of recovery as 30.26 percent. Details have been presents in Table 5.17

**Activity-Summary of Odisha Rural Housing Development Corporation (ORHDC) by the end of 2015-16**  
(Rs in Crore)

Scheme	No. of Beneficiaries	Amount Disbursed	Amount Due	Amount Recovered	% of Recovery
EWS Housing (Kalinga Kutir scheme)	28521	59.2	160.64	74.81	46.57
Credit Linked Housing Scheme	102286	296.71	1090.82	224.16	20.55
Corporate	28364	126.36	235.88	146.11	61.94
Individual Housing Finance Scheme	3195	58.88	210.33	82.68	39.3
Builder/Project Finance	25	19.74	110.1	28.12	25.54
Building Centre Finance	67	5.96	35.61	2.03	5.7
Total	162458	566.85	1843.38	557.91	30.26

[Table 5.17]

Source: ORHDC

#### Odisha SC & ST Finance Development Cooperative Corporation Ltd (OSFDC)

In 2015-16, OSFDC financed Rs15.55 crore under various programmes to 16498

beneficiaries belonging to SC and ST scavengers and other minorities. The physical and financial achievements of OSFDC during 2015-16 are presented in Table 5.18.

**Activity Summary of Odisha SC & ST Finance Development  
Cooperative Corporation, 2015-16**

Programme	Activities		
	Beneficiaries	Amount Directly Financed by OSFDC (in Rs. crore)	Amount Financed Through Bank loan (in Rs. crore)
SCA to SCP (SC Sector)	13681	12.85	20
SCA to TSP (ST Sector) (DTDP)	2817	2.7	4.79
Term Loan Scheme	-	-	-
<b>Total</b>	16498	15.55	24.79

[Table 5.18]

Source: OSFDC

### Private Non-Banking Financial Companies (NBFCs)

Non-banking Financial Companies are an important part of the Indian financial system. At present, there are 17 registered NBFCs, having their Head offices in the State, which function under the overall supervision of the Reserve Bank of India, Bhubaneswar. All these companies are registered at category 'B' (Non deposit taking) and not authorized to accept deposit from public. Out of these companies, three were registered by RBI as NBFC-MFI (Micro Finance Institution). State Level Coordination Committee (SLCC) reconstituted in May 2014 to strengthen the Coordination between bank and other regulating agencies against unauthorized acceptance of deposits and collection activities of fraudulent entities in the state. 147 financial literacy programmes were held by RBI in various districts of the State during 2015-16; wherein among other things public were cautioned against depositing/investing their hard earned money with unauthorized/unregulated entities. Sensitization of the Chartered Accountants and police officials was also done through several programmes in order to collect market intelligence on unauthorized financial activities.

### New Financial Platform for Common Man

#### (A) Pradhan Mantri Jan DhanYojna (P.M.J.D.Y)

Government lays special emphasis on financial inclusion of citizens as it is crucial to poverty reduction. A scheme to empower citizens financially was highly needed so that everyone can reap the benefits of growth and development. Pradhan Mantri Jan-DhanYojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.

The scheme has been started with a target to provide 'universal access to banking facilities' starting with "Basic Saving Bank Account" with an overdraft upto Rs.5000 subject to satisfactory operation in the account for six months and RuPay Debit card with inbuilt accident insurance cover of Rs. 1 lakh and providing social security schemes i.e., Pradhan Mantri Suraksha Bima Yojana (PMSBY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) & Atal Pension Yojana (APY). Any Indian Citizen at the age above 10 does not have a bank account can open an account with zero balance. Account can be opened in

any bank branch or Business Correspondent (Bank Mitra) outlet. By March 2016 about 88.51 lakh accounts were opened. Out of this the number of rural account is 60.33 lakhs. The number of account opened with zero balance is 23.72 lakhs which is 26.80 percent of the total account. As on March 2016 the total deposit balance under the scheme is Rs.1353.53 crores. 47765 villages of the State are covered under the scheme till March 2016. The number of Rupay card issued is 71.45 lakhs.

#### **(B) Pradhan Mantri Jeevan Jyoti Bima Yojna (PMJJBY)**

The scheme will be a one year cover, renewable from year to year, Insurance Scheme offering life insurance cover for death due to any reason. All savings bank account holders in the age 18 to 50 years in participating banks will be entitled to join. A yearly premium amount of Rs.330 will be paid to avail Rs. 2, 00,000/- life insurance cover. The Policy holder will be allowed to enjoy the risk of life cover till the age of 55 years. The amount will be auto-debited for each year of agreed term period from their respective bank accounts. Each Individual can avail only one cover under one SB. Account. By March 2016 total 8.47 lakh persons enrolled in this scheme by all banks in Odisha.

#### **(C) Pradhan Mantri Surakhya Bima Yojna (PMSBY)**

Pradhan Mantri Surkhya Bima Yojna (PMSBY) will cover accidental insurance of Rs.2 Lakhs for death/full disability and Rs.1 Lakh for partial disability. The policy holder should be within the age group of 18-70 with a bank account and a yearly premium of Rs12/- will be auto- debited from his/her account. The insurance period is 1st June to 31st May and renewable in every year. By March 2016 total 31.67 lakh persons are enrolled in this scheme.

#### **(D) Atal Pension Yojna (APY)**

The scheme intends to bring pension benefits to people of the unorganised sector so that they can enjoy social security with a minimum contribution per month.

This scheme was effective from 1st June 2015. This scheme is open for all Indians between age group of 18-40. They can opt for fixed pension of Rs.1000/- , Rs.2000/-, Rs.3000/-, Rs.4000/- or Rs.5000/- by attaining the age of 60. The amount of contribution and age of the individual will determine the amount of pension. The Atal Pension Scheme will bring security to ageing Indians while at the same times promote a culture of savings and investment among the lower and lower middle class sections of the society.

#### **(E) Pradhan Mantri MUDRA Yojana**

Pradhan Mantri MUDRA Yojana (PMMY) is a Govt. of India Scheme, which enables a small borrower to borrow from banks, MFIs, NBFCs for loans for non-farm income generating activities. The idea is to provide financial support for small business which employ majority of the Indian working population. The borrowers are classified into three segments: the starters (Sishu), the mid-stage finance seekers (Kishore) and the next level growth seekers (Tarun). As on March 2016 a total 2149378 number of accounts are sanctioned and Rs 5080.02 crore were disbursed against the sanctioned amount of Rs. 5340.39 crore.

### **5.1.11 National-level Non-banking Financial Institutions**

#### **(A) Postal Life Insurance (PLI) and Rural Postal Life Insurance (RPLI)**

The Postal Department of Government of India provides life insurance under a number of schemes for employees in government,

public sector banks and government-aided education institutions aged between 19 to 55 years. The Central Government has also introduced the Rural Postal Life Insurance Scheme (RPLI) since 1995. Life insurance activities under both schemes have been increasing in an impressive manner. The detail

picture is given in Table 5.19. The trend is decreasing during 2015-16. 4963 new PLI policies with an assured sum of Rs. 229.35 crore and 5846 RPLI policies with assured sum of Rs. 66.65 crore were collected during 2015-16.

#### Activities of Postal Life Insurance/Rural Postal Life Insurance of Odisha circle

Year	PLI		RPLI	
	Number of new policies	Amount Insured (in Rs. crore)	Number of new policies	Amount Insured (in Rs. crore)
2004-05	7049	61.19	17239	218.64
2005-06	7608	84.84	20293	262.1
2006-07	8527	91.67	60703	345.24
2007-08	9547	107.06	71220	428.89
2008-09	11092	160.45	62711	439.42
2009-10	12534	210.57	144487	472.46
2010-11	15820	308.25	261081	649.94
2011-12	11975	263.96	165401	394.76
2012-13	23529	554.65	58396	340.09
2013-14	20689	616.24	85501	560.57
2014-15	15350	577.72	38275	332.54
2015-16	4963	229.35	5846	66.65

[Table 5.19]

Source: PMG, Odisha

#### (B) Life Insurance Corporation of India (LIC)

The business of Life Insurance Corporation of India in Odisha has decreased during 2015-16.

LIC issued about 6.92 lakh policies and collected Rs792.22 crore towards first premium. Details are given in Table 5.20.

#### Business of LIC in Odisha

Year	Total policies	Total sum insured (in Rs. crore)	First year premium (in Rs. crore)
2005-06	980644	7365.93	354.68
2006-07	1077229	6645.38	864.33
2007-08	1186679	7212.04	1342.21
2008-09	1001415	8630.12	611.86
2009-10	1249332	11968.13	960.13
2010-11	1192204	13256.84	991.82

Year	Total policies	Total sum insured (in Rs. crore)	First year premium (in Rs. crore)
2011-12	1132735	13517.53	657.54
2012-13	1249702	13887	700.36
2013-14	1251804	16257.23	791.93
2014-15	765465	13094.07	865.65
2015-16	692925	9714.24	792.22

[Table 5.20]

Source: Life Insurance Corporation Ltd. Central Office, Mumbai

### (C) Small Industries Development Bank of India (SIDBI)

Established in 1990, SIDBI serves as a principal financial institution for promoting, financing and developing industries in the small-scale sector, especially in rural and semi urban areas. Through primary lending institutions such as State Financial Corporations, SIDBI provides refinance assistance for expansion, up-gradation,

modernization and diversification of existing SSI units and rehabilitation of sick units. It extends financial support to small road transport operators, qualified professionals for self-employment, small hospitals and nursing homes and hotel and tourism related activities. During 2015-16, SIDBI has sanctioned loans amounting to Rs.110.78 crore in favour of 112 units and disbursed Rs.95.91 crore to 109 units. Performance of SIDBI in Odisha since 2005-06 is presented in Table 5.21.

#### Performance Summary of SIDBI (2005-06 to 2015-16)

Year	Loan sanctioned		Loan disbursed	
	No.	Amount (in crores of Rs.)	No.	Amount (in crores of Rs.)
2005-06	26	35.76	22	19.4
2006-07	5	1.58	11	13.82
2007-08	13	12.43	13	9.57
2008-09	15	21.54	9	7.16
2009-10	8	14.85	8	4.97
2010-11	16	12.27	13	16.11
2011-12	303	358.26	302	296.33
2012-13	318	412.78	320	404.56
2013-14	228	181.47	228	171.98
2014-15	109	141.78	104	125.26
2015-16	112	110.78	109	95.91

[Table 5.21]

Source: SIDBI

#### (D) National Bank for Agriculture and Rural Development (NABARD)

Established in 1982, NABARD plays elemental role in rural prosperity through effective credit support, institutional development, rural infrastructure, development of financial institutions, facilitating financial inclusion and augmenting agricultural production and productivity etc. The achievement of NABARD in Odisha during 2015-16 is outlined as follows:

- NABARD provided credit support of Rs. 4266 crore to the banks in the form of concessional refinance so as to enable them to disburse credit to farmers at an affordable rate. NABARD also provided refinance support of Rs.511.76 crore to the Commercial Banks, Cooperative Banks and Regional Rural Banks (RRBs) in the State, in 2015-16, for supplementing their resources in purveying term loans to the farmers.
- NABARD has sanctioned RIDF assistance of nearly Rs.15319.35 crore to the State cumulatively. It is estimated that the completed irrigation projects under RIDF have created irrigation potential of 11.48 lakh ha. and the roads and bridges have created connectivity of over 8740 kms.
- NABARD has sanctioned Rs.1077.00 crore for construction of more than 3700 rural godens. An estimated scientific storage space of 9.23 lakh MT is likely to be created on completion of these go downs, benefitting thousands of small farmers.
- As many as 129 watershed and tribal development projects are being implemented in Odisha by NABARD. Taking advantage of the increasing interest of corporate in supporting rural livelihood ventures to meet their CSR needs, NABARD has been working out partnership with the Corporate for supporting watershed projects and tribal development projects. Out of the 72 ongoing watershed projects being implemented in the State with grant support from NABARD, 21 projects are under PPP mode with JSPL (Jindal Steel and Power Limited), Sir Dorabjee Tata Trust (SDTT), and AXIS Bank Foundation etc.
- NABARD is implementing 49 WADI projects for orchard development by tribal farmers in 17 districts.
- During 2015-16 NABARD has sanctioned 13 special projects involving financial assistance of Rs. 72.75 lakh. These projects were in the field of diversification based irrigation (DBI) centralized nursery project of cashew, mango, vegetables and spices and conduct of sensitization programmes to the farmers.
- During 2015-16, GoI placed a corpus of Rs. 200 crore in NABARD, known as, Producers Organisation Development and Up -liftmen Corpus, in short, PRODUCE. Under PRODUCE, NABARD has sanctioned financial assistance for formation of 110 FPOs (Farmers Producer Organisations) in 18 districts of the State. NABARD will carry on providing hand-holding support to such Producer Organisations.
- NABARD is also supporting, in arrangement with German Development Agencies, a unique programme called “Umbrella Programme on Natural Resource Management”. This programme aims at leveraging the natural resources in the rural areas by community based institutions, with Loan cum Grant support,

so that such successful models could be replicated on a larger scale in the rural areas with bank financing. At the end of March 2016, 17 such projects have been sanctioned by NABARD in the State in areas such as agro forestry, fisheries, organic cotton etc.

- In recent years, one landmark area of diversification of NABARD's functioning is in the field of climate change. During 2015-16 NABARD sanctioned a climate change project to Department of Water Resources under National Adoption Fund. The project envisages water management through checking surface run off and is being implemented in Nuapada district with a total functional outlay of Rs. 20.00 crore.
- NABARD has supported nearly 70 Micro Entrepreneurship Development Programmes for SHG members which have benefited nearly 2800 SHG members. With a view to making micro finance effective through adoption of technology, NABARD has launched a pilot project on digitization of SHGs in 10 districts of the country, amongst which, Jagatsinghpur district of Odisha finds a place.
- As on March 2016 NABARD has extended financial grant of Rs.554.68 lakhs for creating awareness on financial inclusion.
- NABARD has supported setting up of Financial Literacy Centre in CCBs and RRBs to facilitate free financial literacy, education and credit counselling. As on March 2016, 110 FLCs have been sanctioned to 15 DCCBs and 2 RRBs in the State.

### **(E) Housing and Urban Development Corporation (HUDCO)**

HUDCO, India's premier techno-financing company is a major player in the area of Housing and Urban Infrastructure finance offering a wide range financing options and services. Apart from those operations, HUDCO offers consultancy services, promotes research studies on sustainable habitat development. Its main thrust has been on meeting the housing needs of the deprived i.e. Economically Weaker Section (EWS) and Low Income Group (LIG). In Odisha HUDCO has so far sanctioned 453 schemes with a loan commitment of Rs.2691 crore and disbursed Rs. 2475 Crores. During the year 2015-16, HUDCO under its retail housing scheme has disbursed an amount of Rs.0.22 crores. During 2015-16 HUDCO generated public deposit of Rs. 10.47 crores. Under its Corporate Social responsibility released 0.63 crores for construction of skill Upgradation Centre and Night Shelters.

## **5.2 Construction**

Construction sector is an essential ingredient to growing economy. Its higher share to GSDP indicates a buoyant economy of the State. The sector not only bears significance as growth potential, but also envisages huge employment potential for the State. It provides the avenue for large scale absorption of surplus labour of decelerating agriculture sector in the State of Odisha. The construction sub-sector builds the capacity of the economy for achieving higher rates of growth. This sub-sector has expanded to contribute 8.19 percent of total GSDP during 2015-16. Construction workers play the elemental role in the development of construction sector in the State.

The Odisha Building and Other Construction workers Welfare Board extends a series of social security measures and benefits to registered Building & Other Construction Workers such as Assistance in case of accident, Death Benefit, Assistance for funeral expenses, Medical Assistance under RSBY & BKKY, Marriage Assistance, Maternity Benefit, Educational Assistance, Assistance of purchase of working tools, Assistance for purchase of bi-cycle, Assistance for purchase of Safety Equipments, Housing Assistant under Nirmana Shramik Pakka Ghar Yojana, Financial Assistance for skill upgradation, Recognition for prior learning and skill development of Construction worker etc..

Till 31.03.2016, Rs. 975,07,29,363/- (approx) has been collected towards cess by the Odisha Building & Other Construction Worker's Welfare Board and deposited in the Welfare Fund of the Board. Total 14,24,531 (approx) number of construction workers have been registered as beneficiaries under the Board and total Rs. 150,53,15,667/- (approx) have been disbursed to 3,73,342 number of beneficiaries towards different benefits. The State Government have revised the minimum wage rates payable to the unskilled, semi-skilled, skill and highly skilled category of employees employed in 88 scheduled employments in the whole state @Rs200/-, Rs220/-, and Rs260/- per day respectively with effect from July 2015.

### 5.3 Tourism

Odisha, the soul of Incredible India has tremendous potential in tourism sector, because of its golden history, strategic geographical location, diverse demography and profound bounties of nature. It is endowed with rich potential of employment & income generation, foreign exchange earnings and value addition to the State economy.

Tourism in Odisha is one of the main contributors to the economy of Odisha (13 percent of GDP of Odisha). It is highly labour intensive sector. According to estimate, for every million rupees investment, Tourism sector creates 89 jobs as against 45 jobs in Primary Sector and 13 jobs in Secondary Sector. The ratio of indirect jobs to the direct jobs in the Tourism sector is approximately 3:1. The State of Odisha secured 3rd rank in terms of intensity of overnight domestic tourism, with an average of 541 trips per 100 households, as compared to the all India average 418 trips per 100 households. Therefore, the tourism intensity in Odisha is 29 percent higher than the national-level tourism intensity (National Council of Applied Economic Research, 2015).

#### Ancient Temples & Monuments

The 'Golden Triangle' of Bhubaneswar-Puri-Konark is the biggest tourist attraction. Puri, the shrine of Lord Jagannath, one of the oldest pilgrimage centres, famous for the Car festival, attracts lakhs of pilgrims round the year. The world famous Sun Temple, a UNESCO heritage sites at Konark (12th century), the temple city of Bhubaneswar (9th century) & Puri (11th century).

The 'Tri-Ratna Triangle' comprising LaleetGiri, UdayaGiri and RatnaGiri is yet another attraction for the Budhists from eastern countries. The Ashokan rock-inscriptions of 3rd Century BC at Dhauli where the historic war of Kalinga was fought is the testimony to the existence of strong Buddhist tradition in Odisha.

#### National Park & Sanctuaries

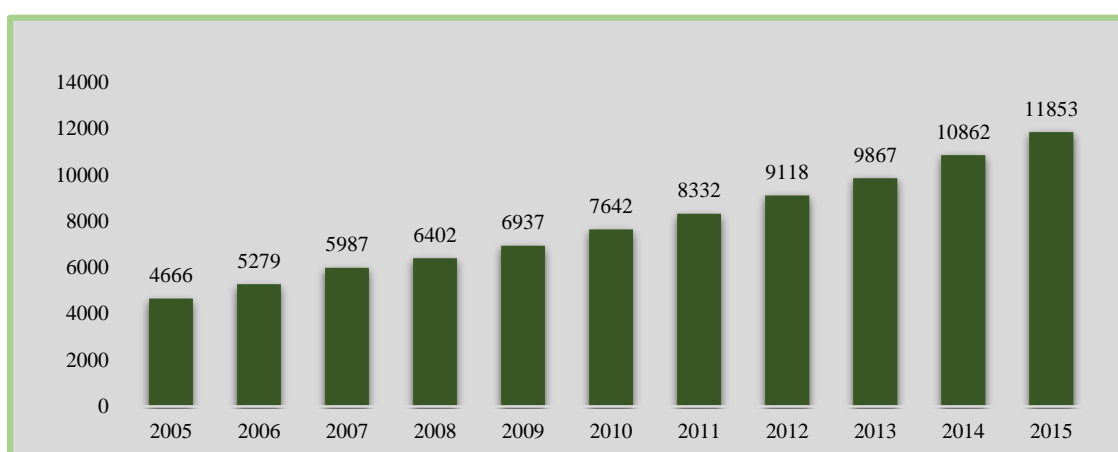
The sanctuaries and wildlife parks viz. Bhitarkanika, Similipal National Park, Chandaka Elephant Reserve, Nandankanan and Chilika Lake with migratory birds are some of the major natural tourist attraction points of Odisha.



The grand scenic beauty of nature, historic monuments, exotic sea beaches, luxuriant forest, majestic mountains, captivating wildlife, mystic waterfalls, beautiful handicrafts, vast water bodies, famous classical and folk dances, enchanting music and most importantly, its hospitable people are the wonders that make the State as the supreme tourism destination of the world.

The development of tourism is generally measured in terms of tourist arrival to the State. The trend of the total number of tourist arrivals is shown in Figure 5.8. It may be observed from Figure 5.9 that Odisha used to get less than one percent share of foreign tourists arrived in India. However, in absolute terms, the number of tourists from within the State, outside the State and abroad has been increasing.

**Trend of Tourist Arrival in Odisha (000' Nos.)**



[Fig.5.8]

Source: Department of Tourism, Govt. of Odisha

As can be seen in Table 5.22 & 5.23, between 2004 to 2015, the number of tourists from within the State has increased approximately 3 times, while it is more than doubled from rest of India and abroad. The main objective of the Department of Tourism is to increase Tourist Traffic to the state, extend their duration of stay promote and position Odisha as one of the preferred destinations both in the domestic and international market. To achieve this objective tourism department has adopted a multi-prong strategy to promote tourism aggressively in the source market. During 2015-16 the tourist arrived to the state was 11853088 against 10862048 in 2014-15 with a growth rate of 9.12 percent over previous year. This steady increase in tourist arrival is due to regular and extensive marketing.

**Number of Foreign Tourist Arrival, Odisha and All India (2004 to 2015)**

Year	India	Odisha	Odisha's share (%)
2004	3457477	28817	0.83
2005	3918610	33310	0.85
2006	4447167	39141	0.88

[Table 5.22]

Source: Department of Tourism, Government of Odisha

**Number of Foreign Tourist Arrival, Odisha and All India (2004 to 2015)**

Year	India	Odisha	Odisha's share (%)
2007	5081504	41880	0.82
2008	5282603	43966	0.83
2009	5167699	45684	0.89
2010	5775692	50432	0.87
2011	6309222	60722	0.96
2012	6577745	64719	0.97
2013	6967601	66675	0.96
2014	7679099	71426	0.93
2015	8027133	66971	0.83

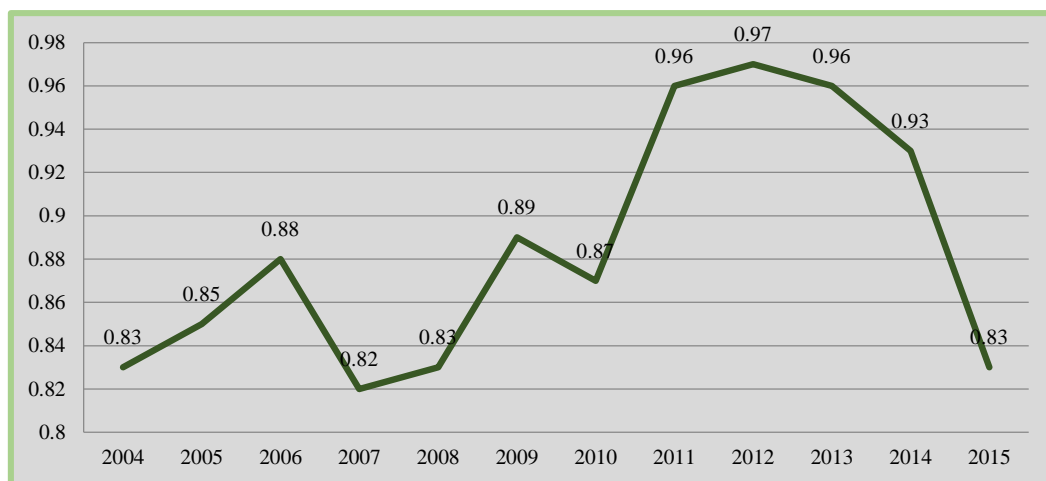
[Table 5.23]

Source: Department of Tourism, Government of Odisha

United Kingdom and USA was the major tourist generating markets for Odisha during the year 2015 with 8921 and 7847 tourists respectively out of the total tourist arrival of

66,971, followed by France, Germany, China, Japan, Italy, Netherlands, Australia and Malaysia.

**Share of Foreign tourist in Odisha to total Foreign Tourist in India**



[Fig. 5.9]

Source: Department of Tourism, Government of Odisha

West Bengal continued to be the major tourist generating State for Odisha contributing 14 percent of the total domestic tourists during

2015 followed by Maharashtra, Madhya Pradesh, Andhra Pradesh, Chhattisgarh, Uttar Pradesh and Jharkhand.

**Tourist Composition in Odisha (2004 to 2015)**

Year	From Within the State	From India but Outside the State	From Abroad	Total
2004	2156986	1968550	28817	4154353
2005	2293865	2339111	33310	4666286
2006	2699654	2540242	39141	5279037
2007	3252380	2692510	41880	5986770
2008	3846512	2511933	43966	6402411
2009	4139456	2752054	45684	6937194
2010	4562742	3028873	50432	7642047
2011	4657402	3613855	60722	8331979
2012	5437254	3615832	64719	9117805
2013	5881714	3918421	66675	9866810
2014	6474077	4316545	71426	10862048
2015	7071367	4714750	66971	11853088

[Table 5.23]

Source: Tourism Department, Government of Odisha

The table 5.23 shows the picture of composition of tourists arrived in Odisha from 2004 to 2015. From the table it is clear that, the number of tourists from within the state and outside the state has been increasing over the years but from abroad it is declining slightly during 2015 i.e. 6.2 percent less than the previous year. It is observed from the table that from within the state towards increased more than 3 times, from outside state and also from abroad more than doubled between 2004 and 2015.

A tourist profile survey was conducted during 2013-14. According to the survey it is found that the average duration and spending of a domestic tourist is 3.7 days and Rs. 2,763 per day respectively while that of a foreign tourist is 11 days and Rs.4,167 per day. Estimated inflow of money to the State through tourist spending during the year 2015-16 has been assessed at Rs.12645.71 crore, a rise of 8.74 percent over 2014-15. Table 5.24 gives detailed information on this sub-sector since 2004-05.

#### Inflow of Money via Tourist Spending in Odisha (2004-05 to 2014-15)

(Rs in Crore)

Year	Domestic tourists	Foreign tourists	Total	Growth rate
2004-05	2151.1	74.8	2225.9	70.6
2005-06	2334.91	88.21	2423.12	8.9
2006-07	2673.77	97.29	2771.06	14.4
2007-08	3088.21	106.93	3195.14	15.3
2008-09	3254.65	135.46	3390.11	6.1
2009-10	3566.89	150.83	3717.72	9.66
2010-11	3901.61	170.39	4072	9.53
2011-12	4253.81	201.14	4454.95	9.4
2012-13	4665.29	209.81	4875.1	9.43
2013-14	10288.6	308.94	10597.54	117.38
2014-15	11297.91	331.01	11628.92	9.73
2015-16	12336.93	308.78	12645.71	8.74

[Table 5.24]

Source: Department of Tourism, Government of Odisha

#### 5.4 Trade, Hotels and Restaurants Industry

The Trade and Hotel industry sector has been growing consistently since 1950-51. Both hotel and tourism industry go hand in hand. So the growth of tourism depends on the development of hotel industry. The tourism and hospitality industry has emerged as one of

the key drivers of growth among the services sector in India. Tourism has significant potential considering the rich cultural and historical heritage, variety in ecology, terrains and places of natural beauty spread across the country. Tourism is also a potentially large employment generator besides being a significant source of foreign exchange for the country.

This sub-sector has been growing consistently in Odisha since 1950-51. Its share in the GSDP increased from 4.85 percent in 1950-51 to 10.95 percent in 2015-16 in real terms. This sub-sector is expected to contribute 11.00 percent share in the real GSDP of Odisha in 2016-17 at 2011-12 prices. Even this sub sector records highest share of within Services broad sector in State. The share continues to rise consistently since last six years. The growth rate of 'trade, hotels and restaurants' sub sector exhibit fluctuating trend since 2011-12. It slides down to a modest 7.22 percent in 2016-17 an impressive from a buoyant 11.22 percent in 2012-13. However, during last six years between 2011-12 and 2016-17, the sub sector maintained a impressive annual average growth rate. The hotel and tourism industries are strongly

linked. Over the last 10 years, the number of hotels has increased 94.36 percent, and touched the number to 1759 by the end of 2015.

The trend in the standard of hotels in terms of servicing lower spending groups (LSG), middle spending groups (MSG) and high spending groups (HSG) from 2004 to 2015 can be seen from Table 5.26. During 2015, there were 1759 hotels with 36386 rooms and 73094 beds, of which, 383 catered to high-spending groups (HSG), 455 to middle-spending groups (MSG) and 921 to lower-spending groups (LSG). It is observed from the Table 5.25 that the number of HSG and MSG hotels in Odisha is increasing rapidly during the last four years while the number of LSG hotels is in a declining trend.

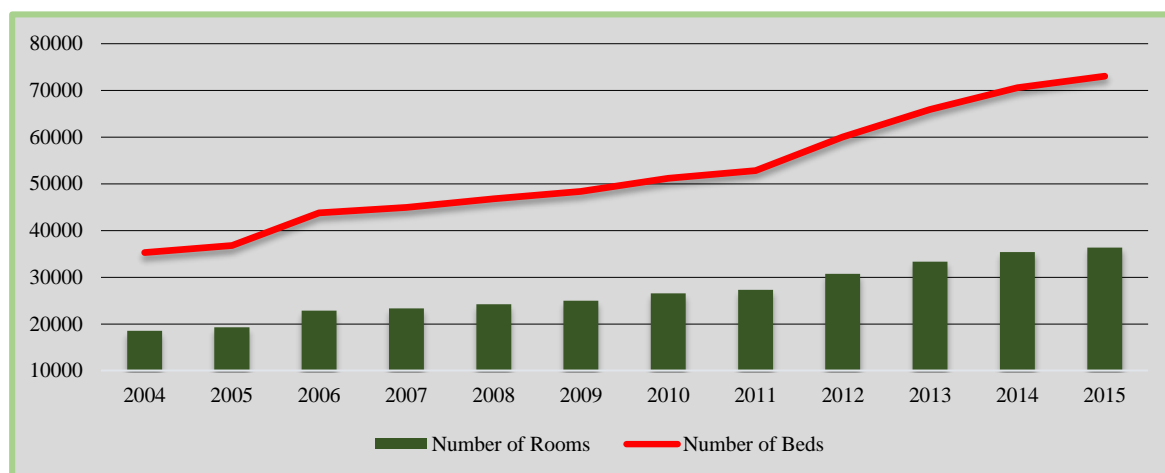
#### Hotel Position in Odisha (2004 to 2015)

Year	Number of Hotels				Number of Rooms	Number of Beds
	HSG	MSG	LSG	Total		
2004	76	183	646	905	18541	35314
2005	84	191	659	934	19265	36771
2006	103	226	824	1153	22820	43828
2007	62	204	936	1202	23341	44948
2008	86	211	935	1232	24197	46809
2009	96	232	948	1276	24962	48408
2010	114	263	942	1319	26531	51233
2011	150	245	933	1328	27291	52867
2012	251	288	918	1457	30770	60077
2013	306	356	923	1585	33349	65967
2014	334	399	956	1689	35373	70600
2015	383	455	921	1759	36386	73094

[Table 5.25]

Source: Tourism Department, Government of Odisha

Trend in Number of rooms &amp; Beds in hotels of Odisha



[Fig 5.10]

Source: Tourism Department, Government of Odisha

### Policies for Promotion of Tourism and Hospitality Industry

Of late, high priority has been given to the development and promotion of tourism as well as the hotel industry sector in Odisha. During the 10th Five Year Plan, the State spent public funds of Rs. 38.45 crore on this sector. During the 11th Plan, Rs. 157.49 crore was spent for this purpose. The plan ceiling for the 12th plan (2012-17) is Rs.511.05 crore. During 2015-16 an amount of Rs.136.24 crore outlay has been provisioned. In all, 350 tourist centres have been identified for their development and promotion in Odisha.

### Organization of State and District Level Festivals

Several festivals including the RathYatra, Konark Festival, National Crafts Mela, Mukteswar Dance Festival and other festivities have been recognised as state-level festivals in Odisha and are geared towards attracting tourists. Similarly, there are district-level festivals like the Parab in Koraput and Mahotsava in Sambalpur. While these are official festivals, interest groups such as industry sub-groups and civil society organizations also organise festivals such as

Beach Festivals at Puri, Gopalpur and Chandipur. Besides Odisha tourism also participated in a number of tourism trade fairs within and outside country for promotion of tourism

### Tourist Units

At present, 20 tourist units, i.e., Panthasala, Panthika, Tourist Complex and Yatrinivas, with 508 rooms and 1086 beds function under the (OTDC) Odisha Tourism Development Corporation, while 4 tourist units with 28 rooms and 64 beds are in operation under the Tourism Department.

Nandankanan Zoological Park is one of the premier large zoos in Odisha located amidst a beautiful natural setting recognized by Central Zoo Authority, Govt. of India. Unlike conventional zoos, it spreads over vast 3.62 sq.km of undulating topography with natural moist deciduous forest, water bodies and enchanting landscape that provides the zoo inhabitants an appropriated ambience to live in harmony with the nature. During 2015-16, 31.19 lakh visitors visited Nandankanan and Rs.8.57 crore revenue collected. The details are given in Table 5.26.

**Number of Visitors and Revenue Collected by  
Nandankanan (2004-05 to 2015-16)**

Year	No. of visitors (in lakh)	Revenue collection (in Rs. Crore)
2004-05	12.41	1.12
2005-06	13.06	1.46
2006-07	15.09	1.77
2007-08	17.33	1.93
2008-09	18.62	2.15
2009-10	21.29	3.61
2010-11	24.01	5.27
2011-12	24.69	5.75
2012-13	29.08	6.45
2013-14	27.62	6.64
2014-15	29.05	7.17
2015-16	31.19	8.57

[Table 5.26]

Source: Directorate of Nandankanan

### Odisha Tourism Policy 2016

The Industrial Policy Resolution (IPR) 2015 was announced in August, 2015. In the IPR, 2015, Tourism was declared as a priority industry. In IPR, 2015 the fiscal incentives proposed for priority sector industries are lucrative than the Tourism Policy, 2013. Therefore, The State Government have published Odisha Tourism Policy, 2016 with following objectives:

- To promote Sustainable & Green Tourism with a view to create employment opportunities and to bring about socio-economic benefits to the community.
- To preserve, enrich and promote Odisha's unique cultural heritage, natural resources and environment with a view to achieve

inclusive development; addressing the regulatory & tourism promotion/development functions in Private Public Partnership (PPP) mode at all levels in an effective and well coordinated manner.

- To promote Odisha as one stop destination to experience its great history, culture society and natural beauty so as to boost foreign & domestic tourist arrival in the State.
- To promote circuit tourism in association with other State of Eastern Zone of the country to facilitate easy arrival and movement of the tourist.
- To upgrade skill & professionalism and promote employment opportunities in tourism sector.
- To promote digital tourism.
- To promote responsible tourism and developed tourism product in an environment friendly manner.
- To promote barrier-free tourism.
- To promote (1) Beach Tourism, (2) Eco Tourism, (3) Buddhist Tourism, (4) Heritage Tourism, (5) Religious Tourism, (6) Knowledge Tourism, (7) Medical Tourism, (8) Travel Tourism, (9) Caravan Tourism, (10) Wellness Tourism, (11) Cruise Tourism, (12) Sand Art Tourism, and (13) Adventure Tourism in a mission mode.

### Future plans and projects

Odisha tourism has the strength of rich and varied spectrum of nature, heritages, culture as well as peace loving population. Its weakness is ingrained in its poor air connectivity, infrastructural gap, brand value problem and absence of tourism Act framework etc. The opportunities are being explored in the form of

smart city tag to Bhubaneswar, improvement in air connectivity, aggressive branding and promotion, conclaves, seminars, tourism events etc. There may be threats of temporary barriers on land allocation related issues, law and orders, skilled personnel, safety and security etc. Exclusive land bank for tourism have been provisioned for tourism related projects and destinations like Puri- Konark Marine Drives (700.00 Ac.),Puri-Satapada

(samuka) (1000.00Ac),Talasari- Udaypur (51.00Ac),Chilika (1000.00Ac),Deomali-Damanjodi, Hirakud- Sambalpur and Gopalpur- Tampara routes.

Forest Department have identified eco-tourism projects at Tikarapada, Satakosia, Bhattarakanika, Similipal and Ushakothi (Sambalpur). The State expects to generate two lakh employment in tourism sector by 2019.



# 6

## Infrastructure

*Infrastructure builds up a strong edifice of State's economy. Energy sector, the core component, shares about 3 percent of GSDP but grows with fluctuating trend. Energy outlay rise to 11 percent of total outlay in 12<sup>th</sup> Plan as against 6 percent in 11<sup>th</sup> plan. Hydro & thermal power together share 78 percent of total installed capacity of projects in the State. Concerned with climate change issue, Odisha starts generating 6.7 MW solar power. The State Government commits to supply electricity to each household of rural & urban areas with the launching of new State sponsored schemes like BGJY, BSVY, SCRIPS, OPSIP etc besides central schemes.. The newly launched State Programme Biju Setu Yojana, Mukhshyamantri Sadak Yojana, Biju Expressway, Constituency wise allotment, State plan PPP mode, OSRP etc expect to improve rural & urban roads, bridges etc substantially. The State attach prime importance to safety, management & governance in transport system. Biju Gadi Yojana is one of many to embark upon rural-urban connectivity effectively. Rural & urban tele density are quite impressive. Remarkable strides in IT sector are on pipeline with the launching of State ICT Policy 2014.*



Quality of Infrastructure and adequate infrastructure development are basic necessities for unleashing high and sustained economic growth as well as alleviating poverty particularly of backward regions. Infrastructure development that covers energy, transport, communication and science & technology sub sectors leads to effectiveness, higher productivity, inclusiveness, competitiveness, wider market accessibility, cost effectiveness and saving potential of agricultural, industrial and services sectors. Production of Infrastructure services is not an isolated phenomenon either for Government or private sector. From policy perspective, both Government and private sector together ensure technical efficiency, adequate scale of investment, proper enforcement of user charges infrastructure development. Energy drives the economy while transport accelerates its growth and communication and science & technology manage and maintain the economic development sustainably. The government of Odisha continues to attach high priority to infrastructural development through several ongoing and pipeline programs and projects. This chapter addresses the sub sectors like power, transport, mail & communication and science & technology.

## 6.1 Power

Energy is the driving force of State economic growth, either in the form of finite resources such as coal, oil and gas or in renewable forms such as hydroelectric, wind, solar and biomass, or its converted form of electricity. The energy sector not only profoundly influences the diversified economic activities but also bears direct bearings on the quality of the State's air, water, land, forest resources and climate changes. The power sub-sector along with gas and water supply sub sector contribute about 2.5 percent of the Odisha's GSDP in real terms at 2011-12 base. The growth of this sub- sector has however, widely fluctuated from year to year due to several factors including availability of inputs such as coal, gas or oil, environmental constraints and natural shocks. Significantly, 12th plan has proposed Rs13, 485.25 crore outlay for energy sector in Odisha as against Rs.2,649.94 crore plan expenditure for same sector in 11th plan.

### 6.1.1 Power supply-demand scenario

**A. Installed capacity:** The total installed capacity of all power projects (Odisha's share) in the State increased to 5593.61 MW in 2015-16 as against 5531.58 MW in 2014-15, with an increase by 1.12 percent, as shown in Table 6.1

#### Demand and Availability of Power

(in MW)

Year	Demand (Estimated)	Availability of Power from different sources					Installed Capacity*	Sold to other States
		State Sector	Central Sector	Other Sources	Purchase from Captive Plants of the State	Total		
2004-05	1578	1459	498	-	69	2026	4845.34	517
2005-06	1649	1275	525	-	62	1862	5073.48	250
2006-07	1760	1543	485	-	92	2120	5178.89	207
2007-08	1997	1563	736	-	82	2381	6067.90	311
2008-09	2107	1375	763	-	130	2268	6745.75	32

2009-10	2240	1157	773	-	485	2415	7990.25	50
2010-11	2398	1295	814	-	729	2838	9456.60	128
2011-12	2674	1136	1170	68	225	2599	10114.00	49
2012-13	2674	1226	1221	89	239	2776	8859.00	136
2013-14	2746	1521	1223	67	89	2900	5054.00	213
2014-15	2910	1552	1310	33	124	3019	5532.00	137
2015-16	2934	1466	1275	85	75	2901	5593.61	44

[Table 6.1]

Source: GRIDCO

\* Includes installed capacity of the state's share in central sector projects and captive power plant capacities

The power projects include state sector, central sector, other power sources and captive power plants (CPP) of some industries in the State. Power is generated by hydro power, thermal power, and renewable energy sources like solar & bio-mass plants in Odisha. As on 2015-16, the State had 10 hydro power and 9 thermal power projects (both State & Central sectors); 01 bio mass project; 02 small hydro electric projects; 14 SPV projects and 33 number of CPP in major industries to supply the power to the State. Power is also supplied to Odisha through other trading companies' sources like ER UI Pool, PTC, APPCPL, NVVNL IEX etc. The hydro power, thermal power (State & central sector) and other power sources (renewable, independent & CPP) share 41, 37 & 22 percent respectively of total installed capacity of the power projects in Odisha. Detail is given in Annexure – 6.1 & 6.2.

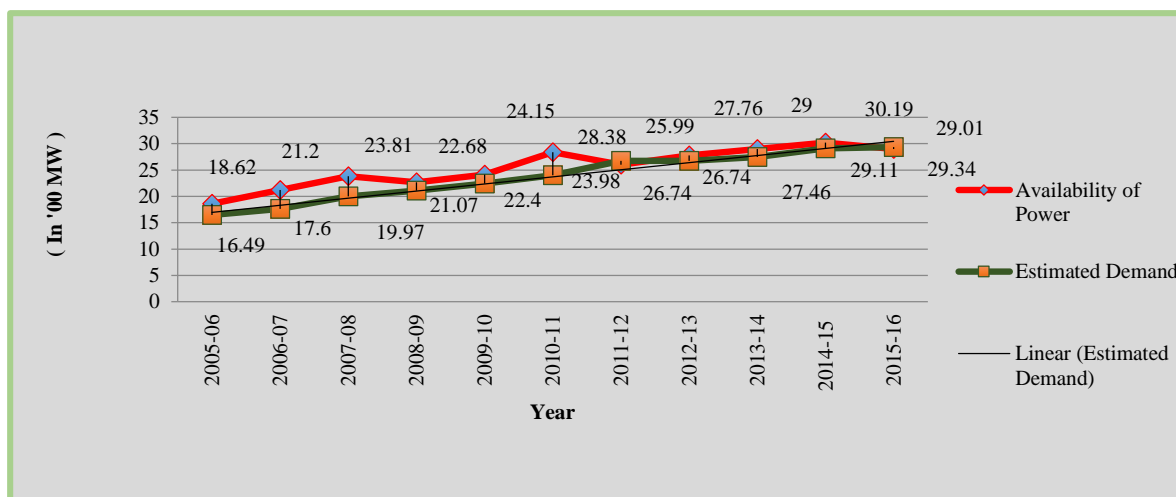
#### **B. Power Generation (availability):**

During 2015-16, 2901 MW was available for power consumption from all sources that stood 51.86 percent of total installed capacity of

power projects in the State. The state sector, central sector and other sources (including CPP) contributed 53, 42 & 5 percent respectively of total power generation in Odisha during 2015-16. Details have been indicated in Annexure-6.1. Among the 33 CPP that supplied 74.895 MW to GRIDCO in 2015-16, Bhusan Power & Steel Ltd, Jharsuguda (17.08 MW), JSPL, Meramundali (16.86 MW), JSL, Duburi (8.238 MW), Bhusan, Stainless Ltd, Meramunduli (6.4 MW) are the leading Captive Power Plants (CPPs). Global climate change necessitates developing alternative renewable energy sources like Biomass, Solar Power, etc to ease out the pressure of climate change prone thermal & hydro power generation. Details have been indicated in Annexure - 6.3.

**C. Estimated Demand for power:** The demand for power in Odisha in 2015-16 is estimated at 2934 MW as against 2910 MW in 2014-15. The State's estimated power demand increased many fold in last 10 years between 2005-06 (with 1649 MW) and 2015-16 (with 2934 MW) as depicted in Figure 6.1

### Trend of Estimated Demand for Power in Odisha (in MW)



[Figure 6.1]

Source: GRIDCO

#### 6.1.2 Power consumption

Power consumption is a flow concept while demand for power is a stock concept. The total power consumption of Odisha was 15923 MU in 2015-16 as against 15440 MU in 2014-15. Industrial and domestic consumption together share about 75.44 percent of total power

consumption of the State. However, domestic consumption (37.95 percent) exhibits an upswing trend while industrial consumption (37.49 percent) suffers from stagnancy or downswing over last few years. The down swing is due to the impact of global slowdown since 2008-09. The power consumption status of Odisha is depicted in Table 6.2.

#### Power Consumption in Odisha

(Consumption in MU)

Year	Total Consumption	Consumption Sector							
		Domestic	Commercial	Industrial	Public Lighting	Irrigation & Agriculture	Railways	Public Water Works	Bulk Supply & Others
2004-05	7598	2352	482	3742	41	147	355	126	353
		(30.96)	(6.34)	(49.25)	(0.54)	(1.93)	(4.67)	(1.66)	(4.65)
2005-06	8144	2483	558	3941	55	137	384	129	457
		(30.49)	(6.85)	(48.39)	(0.68)	(1.68)	(4.72)	(1.58)	(5.61)
2006-07	9288	2525	640	4967	45	131	525	134	321
		(27.19)	(6.89)	(53.48)	(0.48)	(1.41)	(5.65)	(1.44)	(3.46)
2007-08	10761	2679	891	6090	51	132	594	142	182
		(24.90)	(8.28)	(56.59)	(0.47)	(1.23)	(5.52)	(1.32)	(1.69)
2008-09	11747	2914	1087	6548	54	155	627	151	211
		(24.81)	(9.25)	(55.74)	(0.46)	(1.32)	(5.34)	(1.28)	(1.80)
2009-10	12228	3190	944	6542	56	154	735	172	435
		(26.09)	(7.72)	(53.50)	(0.46)	(1.26)	(6.01)	(1.40)	(3.56)

2010-11	13099	3533	1113	6755	58	179	797	189	475
		(26.97)	(8.50)	(51.57)	(0.44)	(1.37)	(6.08)	(1.44)	(3.63)
2011-12	13054	3946	1349	6246	61	151	891	200	210
		(30.23)	(10.33)	(47.85)	(0.47)	(1.16)	(6.82)	(1.53)	(1.61)
2012-13	13552	4261	1513	6147	65	162	930	213	261
		(31.44)	(11.16)	(45.36)	(0.48)	(1.20)	(6.86)	(1.57)	(1.93)
2013-14	14213	4585	1559	6291	72	186	1015	222	283
		(32.26)	(10.97)	(44.26)	(0.51)	(1.31)	(7.14)	(1.56)	(1.99)
2014-15	15440	5473	1703	6344	81	229	1031	236	343
		(35.45)	(11.03)	(41.09)	(0.52)	(1.48)	(6.68)	(1.53)	(2.22)
2015-16	15923	6042	1845	5970	88	261	1088	247	382
		(37.95)	(11.59)	(37.49)	(10.55)	(1.64)	(6.83)	(1.55)	(2.40)

[Table 6.2]

Sources: CESU, NESCO, SOUTHCO and WESCO

Note: Figure in bracket indicates percentage to total consumption

Trend of power consumption and share of domestic & industrial power consumption have been shown in Fig 6.2(A) & 6.2(B) respectively

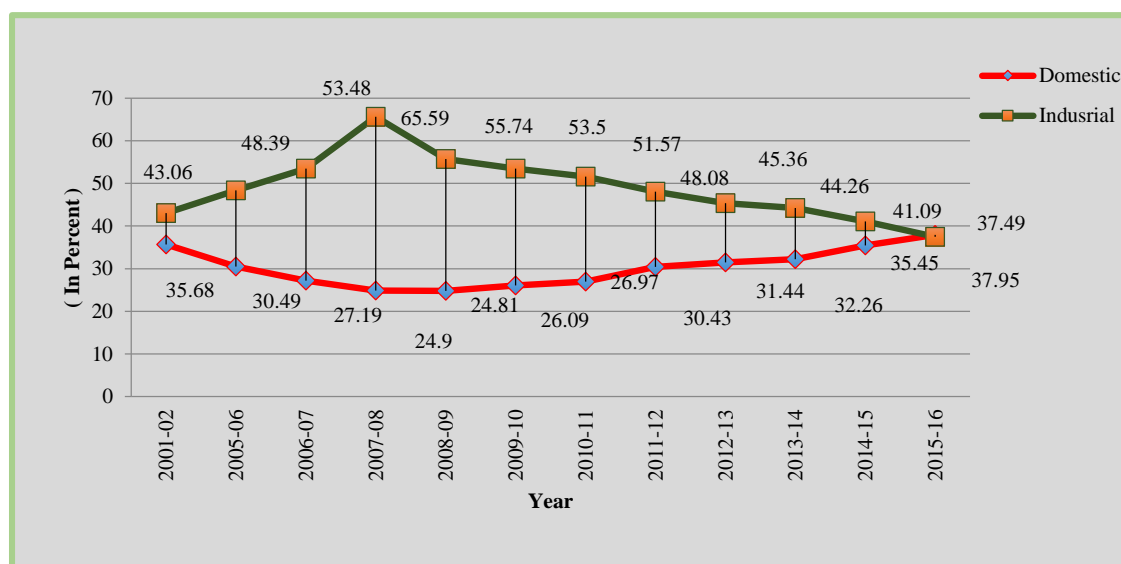
### Trend of power consumption (MU)



[Figure 6.2(A)]

Sources: CESU, NESCO, SOUTHCO & WESCO

### Share of domestic and industrial power consumption (%) in Odisha



[Figure 6.2(B)]

Sources: CESU, NESCO, SOUTHCO & WESCO

### 6.1.3 Rural Electrification

Electricity is basic requirement of life today. Like other states, Odisha has also been making efforts for village electrification. Out of 47,675 villages in Odisha, 92.88 percent villages have been electrified by the end of 31st March, 2016 as against all India figure of 98.7 percent. Sixteen (16) states have achieved complete village electrification. Odisha, with 92.88 percent village electrification, lags behind national average by 5.82 percent. Only two districts i.e. Sonepur & Jharsuguda have achieved 100 percent village electrification, while four districts Koraput, Malkangiri, Kandhamal and Rayagada have remained among lowest achieving districts (60-80 percent). Annexure- 6.4 shows the district-wise status of village electrification in Odisha as on 31st March 16. The State has 61.21 lakh power consumers in 2015-16 with 79 percent of them are rural users. The rural-urban disparity in consumption of power remains high, detail is given below.

### Sector-wise Distribution of Power Consumers, 2015-16

(in Lakh number)

Sector	Rural Consumer	Urban Consumer	Total	% of Rural Consumer to Total Consumers
Domestic	45.56	10.67	56.23	81.02
Commercial	1.45	1.78	3.23	44.89
Industrial	0.04	0.10	0.14	28.57
Others	1.13	0.48	1.61	70.18
Total	48.18	13.03	61.21	78.71

[Table 6.3]

Sources: CESU, NESCO, SOUTHCO & WESCO

### 6.1.4 Major initiatives in Energy Sector

**A. Biju Gram Jyoti Yojana (BGJY):**  
The flagship scheme Biju Gram Jyoti Yojana covers those habitations which are not covered under RGGVY to ensure electricity to all. 15,462 nos.of habitations have been electrified during the 11th Five Year Plan against a target of 10,000 habitations.

**B. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY):**

This flagship programme of Government of India launched in April, 2005 to provide access to electricity to villages having population of 100 or more envisages 90 percent capital subsidy and 10 percent as loan component for the State. The scheme is executed through CPSUs viz NTPC, NHPC & PGCIL. There is a target to electrify 14856 un-electrified/ de-electrified villages, 29351 partially electrified villages and 3257471 BPL households in all 30 districts. Against this 14402 Nos. of Un-Electrified villages have been electrified along with in 26353 Nos. of Partially-Electrified villages. Intensified Electrification have been completed. Moreover, 2876149 nos. of BPL kits have also been installed and 2315605 Nos. of BPL houses electrified.

**C. Biju Saharanchal Vidyutikaran Yojana (BSVY):**

BSVY was launched in 2010-11 for providing access to electricity to the people living in un-electrified areas of urban local bodies. Under the scheme, un-electrified habitations, with minimum population of less than 100 along with BPL household, electrification and system improvement are taken up. Five Municipal Corporations, 45 Municipalities and 61 NACs of the State have been covered under the Scheme. During 2015-16, a budgetary provision of Rs.10.00 crore has been made against which 2346 Nos. of villages/ wards have been electrified till end Jan'16.

**D. CAPEX:** CAPEX programme, launched in 2011-12 with an investment of Rs 2400 crore, aims to improve Distribution system, quality of power to the consumers & to reduce AT & C loss.

**E. Energy conservation** is a priority issue for Odisha. Major initiatives on energy

conservation by Government of Odisha include:

- i) Odisha is the first State in India to notify Odisha Energy Conservation Building Code (ECBC). Energy Conservation Day is observed on 14th December and awareness campaigns are being made among the school students and general public to promote energy conservation issue in the State.
- ii) Implementation of Energy efficiency in the 4795 lift irrigation (LI) system under the Pani Panchayat is being taken up with OLIC which will work towards grid load reduction as demand side initiatives. Investment grade energy audit (IGEA) is in advance stage of implementation in four major drinking water pumping stations with the support of respective Public Health Divisions. Implementation of high impact street light projects in 106 ULBs of the State by undertaking retrofitting of existing inefficient street lights with LED with associated control systems to demonstrate and showcase benefits of energy efficiencies. LED Village Campaign is in full swing in support of CESU wherein 3 numbers 10W LED Bulbs distributed to each family and 20W street lights to selected villages.
- iii) In order to strengthen the Electrical Infrastructure along the Elephant Corridor and thereby to provide safety to the elephants and other wild animals, a special scheme called System Strengthening for Elephant Corridor has been launched.
- iv) OPTCL have authorized to upgrade electricity transmission system and other electrical infrastructures in Puri and its

surroundings. The clusters of dedicated agriculture and fishery feeders have been identified and the project implementations have begun through the nodal agency OPTCL. For quality supply of power to the consumers and to address the low voltage problem in rural area, it is planned to commission 550 nos. of new 33/11 KV Sub-Stations within a period of two years. The project work is in progress.

- v) The concept of State Capital Region Improvement of Power System (SCRIPS) is visualized with an objective of 24X7 uninterrupted stable power supplies to all classes of consumers including public services.
- vi) Odisha Power Sector Improvement Projects (OPSIP): The State Government has evolved new schemes and projects like Radial to Ring Conversion Project, Disaster Response Centre, Disaster Resilient Power System, District Headquarter Projects for reliable and un-interrupted power supply to the consumers during natural shocks by adoption of ultra-modern technology and creating new and renovating the existing infrastructure.

Smart Grid: Initiatives are made for adaption of Smart Grid Technology in power sector (Transmission and Distribution Sector).

- vii) Green Energy Development Corporation Ltd. (GEDCOL), a subsidiary of OHPC, which has started its operation from 2013-14 to promote green energy in the State. The project i.e. Odisha Power Sector Externally Aided Project (ADB Project) with “build back better” approach is being launched in the cyclone affected areas of Chatrapur, Gopalpur and

Berhampur of Ganjam district with the ADB loan assistance.

- viii) Deendayal Upadhaya Grama Jyoti Yojana (DDUGJY): It aims at strengthening the sub transmission and distribution infrastructure in the rural areas with separation of agriculture and non-agricultural feeders to regulate power supply to agricultural consumers.
- ix) Integrated Power Development Scheme (IPDS): This scheme has been introduced in 2015-16 by govt. of India in order to create a strong infrastructure for strengthening sub-transmission and distribution network. The roof top solar project, installation of solar panel and smart and net metering are mandatory components under the scheme.
- x) Radial to Ring Conversion Project: In this system one substation can be fed from two sources of power which is capable of supplying power at the time of need from other sources to ensure uninterrupted power supply to consumers.
- xi) Disaster Resilient Power System: This state scheme is aimed for creation of energy infrastructure having capability to combat the natural calamities like cyclone and flood.

### 6.1.5 Institutions

**A. Grid Corporation of Odisha Ltd (GRIDCO Ltd):** GRIDCO presently carries out its bulk supply function as a Deemed Trading Utility. Being designated by the State Government as the State Designated Entity for procurement & sale of power in bulk to meet the State demand, GRIDCO procures the State share of power from inside and outside the State and supplies the same in bulk to the Electricity Distribution Companies

(DISCOMs) for onward retail sale to the consumers of the State.

### **Power Scenario**

Odisha has 5593.61 MW of installed capacity including its share from central & other sources and including CPPs. The 1st Unit of the proposed 2x350 MW thermal power plant of M/s. Ind-Barath Energy (Utkal) Ltd. (IBEUL) is likely to supply power (40MW) during second half of 2016-17. M/s. Monnet Power Company Ltd. (MPCL) is expected to commission their 2x525 MW thermal power plant, with Odisha share of 126 MW during 2016-17. In view of comparatively high cost of power of NTPC stations and surplus power situation in the State, GRIDCO has requested for surrender of capacities allocated to the State from proposed stations of NTPC & its JV companies, including costly Barh STPS-I, Stage-II mentioned above but excluding share from the proposed 3x660 MW North Karanpura STPS.

### **Power Procurement & Sale**

During 2015-16, GRIDCO procured 25,277 (approx.) MU of energy at an average rate of Rs.2.32 paisa per unit at a cost of Rs 5858 crore which included renewable energy (solar & non solar) of about 456 MU. The generating companies from which GRIDCO procured energy are OHPC, OPGC, TIPS, Sesa Sterlite Ltd, GMR Kamalanga Energy Ltd, CGPs, New renewable sources, 8 co-generation, central allocation, trading through power exchanges and purchase through NVVNL. GRIDCO sold around 23,740 MU of energy to the four DISCOM utilities for Rs.6524 crore for retail sale to the state consumers. GRIDCO earned additional revenue of Rs 155 crore out of such transactions. GRIDCO as constituent member of Eastern Region Power Committee (ERPC) helps in smooth & prudent

management of the grid operation by State load dispatch Centre.

### **Power Banking**

GRIDCO has been very active in supplying electricity through power banking. During 2015-16 it has transacted about 728 MU of power through power banking. Being a cashless transaction like the one under barter system power banking has helped GRIDCO to balance the states power supply position effectively at the same time.

### **Power for All**

State is actively pursuing along with center and committed to ensure power supply to each household under the “24x7 Power for All” by March 2019.

### **Development of Renewable Energy Sources**

GRIDCO has signed power purchase agreements with different renewable energy developers such as small hydro bio-mass and municipal solid waste and waste to energy, etc to maximize the percentage of renewable energy in total energy mix.

### **Finance**

GRIDCO incurred losses of about Rs.121 crore during financial year 2014-15 mainly due to writing off about Rs 800 crore towards provisioning of bad debt. The financial position is expected to improve during coming years due to improvement in operational areas like power sourcing trading, power banking, recovery of dues from DISCOM utilities etc. and above all through effectual financial management.

### **New Management of DISCOMs**

Pursuant to the revocation of license of the erstwhile RIL (Reliance Infrastructure Ltd), the management and control of 3 DISCOMs namely SOUTHCO, WESCO & NESCO



along with their assets, interests and rights are vested with CMD, GRIDCO with effect from 4th March 2015. Under the new management the performance of 3 DISCOMs Utilities is showing sign of improvement.

**B. Odisha Hydro Power Corporation Ltd. (OHPC):** Odisha Hydro Power Corporation (OHPC) Ltd, set up in 1995, has six ongoing Hydro Electric Project at Hirakud, Chipilima, Balimela, Rengali, Upper Kolab, Upper Indravati and one Joint Hydro Electric Project at Machkund having total installed capacity of 2062 MW which is a distinct improvement over its initial capacity of 1272 MW at the time of incorporation. OHPC provides the cheapest power to the State Grid. During 2015-16, 4104.32 MU of electricity was generated with agross revenue collection of Rs 616.33 crore and gross profit ( after tax ) of Rs 87.30 crore. OHPC is categorized as Gold rated PSU. Plan to develop thermal & hydro renewable energy projects through joint ventures and subsidiary initiated. A 20 MW solar power project has been commissioned at Manamunda, Boudh district. A 15 MW SHEP at Mandira dam, Rourkela is to develop on joint venture with SAIL.

**C. Odisha Power Generation Corporation (OPGC):** OPGC is a Government Company and a Gold category state PSU incorporated in 1984 and jointly managed by the Government of Odisha and AES, a private US company. It works to establish, operate and maintain electric power generating station, tie lines, sub-stations and transmission lines & connection therewith. It develops and deals in fuels i.e., coal, lignite, coke, coal-bed methane etc. The paid-up share capital of OPGC is Rs. 490.22 crores, of which, the share of the Government of Odisha is 51 percent. The company has set up two

thermal power plants of 210 MW each in Ib valley area of Jharsuguda district at a project cost of Rs. 1,135 crore. During 2015-16, the Corporation generated 3117.32 MU power with Plant Load Factor (PLF) of 84.50 percent with a turnover of Rs 705.95 crore and net profit after tax of Rs 114.826 crore. OPGCs Thermal Power Station (ITPS) registered a PLF 91.02 percent during the month from April to June-2014 which is the highest among the State-run generating stations of the country as reported by CEA. OPGC is pursuing expansion project with the support of BHEL & BGRE comprising of (2x660 MW) power plants in the same location i.e., IB Thermal Power Station (ITPS) and development of captive coal mines in the district of Sundargarh. Details of year wise turn over and net profits of OPGC have been indicated at below.

**Turnover and Net Profits of Odisha Power Generation Corporation (OPGC)**  
(Rs. In crore)

Year	Power Generated (in MU)	PLF (%)	Turnover	After-Tax Net Profit
2004-05	3160.29	85.90	426.69	143.39
2005-06	3089.61	83.89	448.73	161.91
2006-07	3310.53	89.98	477.07	156.77
2007-08	3043.54	82.72	484.69	165.34
2008-09	3190.63	86.72	440.79	112.48
2009-10	2961.11	80.48	399.88	81.19
2010-11	3184.70	86.56	453.03	115.04
2011-12	2950.15	79.97	572.78	137.08
2012-13	3181.59	86.47	636.03	167.44
2013-14	2855.90	77.62	622.64	127.57
2014-15	2798.92	76.07	630.00	150.57
2015-16	3117.32	84.50	705.95	114.83

[Table 6.4]

Source: OPGC

**D. Odisha Power Transmission Corporation Ltd. (OPTCL):** Odisha Power Transmission Corporation Limited (OPTCL) ensures development of an effective and economical system of Intra-state and Inter-state transmission lines for smooth flow of electricity from generating station to load center. The infrastructure of OPTCL includes 125 nos. of Grid Sub-Stations including Switching Station with transformation capacity of 15557 MVA and 12872 Ckt. Kms of Transmission lines of 400KV, 220KV and 132KV rating. The present peak demand of the state is around 4000MW, which is handled by the existing network and equipment of the system. Major activities of OPTCL during 2015-16 are outlined as follows:

- i) 1470 MVA Transformation capacity augmentation in 22 number of Grid substations were completed along with 10 numbers of new Grid Sub-stations.
- ii) There are 12 ongoing projects of OPTCL that work on upgradation of conductor, transmission lines, auto transformer capacity, conversion of A/C to D/C lines, installation of capacitor banks, addition of feeder bays, replacement of cold conductor, old & obsolete breakers, CT,PT,LA, isolators etc. and construction of LILO lines of different districts.

**E. Odisha Thermal Power Corporation Ltd (OTPC):** The Odisha Thermal Power Corporation Limited (OTPC) is a joint venture company having equal share with Odisha Mining Corporation Ltd (OMC) and the Odisha Hydro Power Corporation Ltd (OHPC). OPC is setting up a coal based super critical thermal power plant of 2400MW (3x800 MW) capacity in Kamakhyanagar Tahasil of Dhenkanal district. The total land for the project including the railway corridor

after deliberation & visit of CEA is finalized at 1767.908 acres. 60 percent of payment of compensation for private land out of Rs.184 crore has been made. Alienation of non-forest Govt. land is under process by the Tahasildar-cum-Land Acquisition Officer, Kamakhyanagar. The cost of the project estimated at Rs.16, 174.17 crore i.e. Rs.6.74 crore per MW. The leveled tariff for 25 years with discount factor 10 percent is estimated at Rs.3.16 per kwh. An expenditure of Rs.216 crore has been incurred on the project till Jan'2015. Site specific studies like soil investigation, ground water survey, socio economic study, geological study, contour survey, area drainage study, hydrological study etc have been completed. DoWR has confirmed allocation of required water for the project. IDCO has started the initial work for construction of boundary wall, site office, transit house etc.

**F. Odisha Renewable Energy Development Agency (OREDA):** Thermal and hydro-based energy continue to dominate the energy supply sources in Odisha. But the State Government is keen to tap alternative energy sources. The Odisha Renewable Energy Development Agency (OREDA) is the apex agency under the Department of Science and Technology, Government of Odisha. It looks after renewable and alternative energy projects.

Major initiatives of OREDA during 2015-16 are highlighted below:

- i) National Biogas and Manure Management Programme (NBMMP): The National Biogas and Manure Management Programme (NBMMP) is a high-priority central-sector scheme, and a part of the 20-Point Programme which educate the people to use biogas for cooking and lighting purposes. It also

provides rich organic manure. Against the target of 5100 for 2015-16, 1582 biogas plants are achieved by Feb, 2016.

- ii) Wind power project: Odisha has an estimated wind power potential of 910 MW. Wind resource assessment has been taken up at 9 locations. The project is supported by Centre for wind energy Technology (C-WET), Chennai, an Organization under the Ministry of New and Renewable Energy, Government of India.
- iii) Biomass Power Project: The Biomass Power Potential of the State has been estimated at 300 MW. One Consultant is engaged during 2015-16 for biomass resource assessment study and development of biomass power projects in Odisha.
- iv) Solar Photo voltaic (SPV) Power Project: 25 MW grid connected solar power plants (SPP) has been commissioned in Bolangir district during 2015-16. 25 MW SPP will be installed by M/s Acme Odisha Solar Power Pvt. Ltd. in Odisha. OREDA installed 50 KW roof top off grid SPP in different government buildings of the State. The State achieved 462.5 KWP under off grid SPV programme. 22812 Nos of solar lanterns have been supplied to handloom weaver's families by the end of Feb, 2016. Proposed target of SPV power plant is 1440 KW for 2016-17.
- v) OREDA installed 4852 nos of solar based pump piped water supply scheme from 2013-14. It is planned to install 2000 pumps during 2016-17.
- vi) MNRE released Rs 9.33 crore against a State target of installing 2560 number of solar powered pumps with a sanctioned amount of Rs 26.75 crore for Odisha

under solar pumping programme for irrigation in Odisha during 2015-16.

## 6.2 Roads & Transport

Roads & transport have profoundly influenced the life style, mobility, quality and even life risk of the people. Demographic trend, urbanization, industrialization and human settlements etc have led to the upsurge of mobility, both passenger and freight traffic in the State. With the diversification of all social and economic activities, the dependency syndrome of mobility on major modes of transport like road, railways, airways and waterways remain very high in Odisha. The strength of transport development in the State largely depend on its network strength, quality, speed, economic efficiency, frequency of services, cost effectiveness, eco friendliness, energy efficiency and safety with fewer accidents etc. The State Government addresses these issues with high priorities. Transport by other means and railways together shared more than 9 percent of GSDP of Odisha with an impressive annual growth rate of 11 percent in 2015-16. The State Government has accorded high priority to develop transport and communication infrastructure with a view to promoting development of backward areas and connecting remote habitations to growth and service centers.

### 6.2.1 Roads

Roads are crucial in providing connectivity to all human settlements, commercial, industrial and cultural establishments. In the absence of adequate rail network in Odisha, roads play the predominant role in accommodating imposing proportion of passenger and freights movements. The State has a total road length of 254845.209 kms by the end of 2015-16. The road network of the State consists of national highways, express highways, state highways, major district roads, other district roads, rural roads, urban roads, PS roads, GP roads, forest roads, irrigation roads, GRIDCO roads.

### Road Length in Odisha by Types, 2015-16

Type of Roads	Length (Kms)
National Highways	4855.51
Express Highways	38.38
State Highways	4148.82
Urban Roads	18590.69
Rural Roads	36128.34
Major District Roads	2694.77
Other District Roads	11999.46
GP/PS Roads	162476.45
Forest Roads	7574.90
Irrigation Roads	6277.00
GRIDCO Roads	88.00
Total (Kms)	254845.32

[Table 6.5]

Source: C.E, NH, C.E R&B, P.R. Deptt.

Odisha fares better than the all India average with respect to road density. The road length per 100 Sq. Km in Odisha was 164 Kms in 2015-16.

#### National Highways

National Highways (NH) constitute only about 2 percent of the road network in Odisha. It is the linking factor for all major and feeder roads of the State. 41 number of NHs traverse through Odisha with a total length of 4855.506 kms of which 3386.800 kms and 1468.706 kms of NH length are under the control of NH wing of Government of Odisha and National Highway Authority of India (NHAI)

respectively. The transfer of NH to NHAI is meant for improvement under the Golden Quadrilateral, NHDP Phase-III and Phase IVB and Port Connectivity Programme. Two districts Keonjhar and Ganjam have NH with more than 300 kms length while eight districts Koraput, Mayurbhanj, Sambalpur, Angul, Deogarh, Jajpur, Kalahandi and Kandhamal have 200-300 Kms of NH length. Nawarangpur and Kendrapada have NH network of less than 50 kms of length (Annexure-6.5). Details on improvement/widening of National Highway are given below.

#### Achievements of Roads / Bridges of National Highways in 2015-16 and under progress in 2016-17 (in Kms)

Items	Achievement during 2015-16	Work under progress, 2016-17
Widening of Two Lanes	115.29	882.08
Periodical Renewal	159.16	84.64
Widening to four Lanes	4.80	2.00

[Table 6.6]

Source: C.E, NH

**Major Roads & Bridges**

Major roads & bridges projects/schemes under Plan schemes of Odisha undertaken during

2015-16 & proposed for 2016-17 are presented as follows.

Projects/Schemes	Achievements
Biju Setu Yojana	Rs. 400 crore is provided in 2016-17 for construction of new (157) bridges on rural roads for providing all weather connectivity.
Mukhya Mantri Sadak Yojana	Rs 375 crore is proposed for 2016-17 for the Yojana for all weather rural connectivity to left out unconnected habitations up to 100 populations. During 2015-16, 417 numbers of road projects have been taken up.
RIDF (NABARD loan assistance) Scheme	Till Date 554 bridges and 147 roads taken up from RIDF-XIII to RIDF-XXI. 329 bridges and 46 roads completed out of ongoing projects as on 29th February, 2016. Completion of 224 bridges and 101 roads targeted during 2016-17 which are now in progress.
'Improvement of PWD roads in urban areas' Scheme	65.88 Kms of ULB roads are completed with an expenditure of Rs. 74.55 crore by 31st December 2015.
State Highway Development Project (SHDP)	Launched in 2013-14. By the end of Dec, 2015 completion of 2 laning for 315.39 Kms of road length has been made with expenditure of RS 580.00 crore.
Biju Expressway	A provision of Rs 150 crore is made for 2016-17 to take up projects under north south corridor of the State.
Core road Network (CRN) system	CRN system aims to improve road user services and provide better management of roads having high traffic density, economic & tourism, mining & industrial area importance with effective utilization of available resources. 31 roads of 1610.250 Kms have been included under CRN with a project cost of Rs 30 crore in 2015-16.
State Plan PPP mode	4-laning of Sambalpur-Rourkela SH-10 & construction of Palaspanga-Bamberi mining road in Keonjhar district is under operation.
Constituency wise Allotment (CWA)	Rs 28.40 crore is provided under CWA in 2016-17 for providing Rs.20 lakh for each Assembly constituency (except 5 urban constituencies) for improvement of rural roads.
PMGSY	Rs. 2300 crore has been provided in 2016-17 for construction of 3200 Kms roads to connect 1200 habitations in the State.
<b>Other Major Projects</b>	
Odisha State Road Project (OSRP)	OSRP is a 196 million USD EAP signed with World bank in 2008. Total 110 km length of road has been improved by March 2015 and 26 km length of road has been improved during 2015-16 up to Dec' 2015. The project targets to improve total 303 kms of identified busy corridors of 4 routes such as Berhampr- Taptapani, Bhawanipatna-Khariar, Chandbali-Anandpur and Jagatpur- Chandbali road.
Central Road Fund	By the end of December 2015, road length of 46.86 Kms have been completed along with completion of new 5 roads with cost Rs.70.87 crore under Government of India Funding.
Biju KBK Scheme	A provision of Rs. 30.00 crore has been made for 2016-17 to complete the spill over projects taken up under SCA for KBK districts and to take up some new projects.

In addition, rural connectivity programmes are also funded under Biju KBK Plan, Gopabandhu Grameen Yojana and Biju Kandhamal O Gajapati Yojana. These initiations cater to

resolve and focus on Bijli, Sadak and Pani. The status of GGY scheme from 2008-09 to 2015-16 is given at below.

### Gopabandhu Grameen Yojana

Sl. No.	Achievement	2009-10	2010-11	2011 - 12	2012-13	2013-14	2014-15	2015-16
Physical								
A	Works taken up/ started							
i	Bijli	201	440	198	877	1101	840	906
ii	Sadak	7520	12587	13745	9537	11651	10483	13669
iii	Pani	115	280	183	20	453	181	3198
iv	Other	10	24	281	199	108	84	485
	Total	7846	13331	14407	10633	13313	11588	20609
B	Works completed	4960	10303	12213	8689	12278	8908	8038
C	Man days generated (in lakh)	26.28	51.74	47.02	52.08	44.71	70.08	98.45
D	Villages covered	6197	9365	9400	N.A.	N.A.	N.A.	N.A.
Financial								
A	Total funds available (Rs. in crore)	162.21	251.42	251.78	199.10	261.80	248.89	710.26
B	Expenditure (Rs. in Crore)	75.91	165.12	207.88	163.46	238.46	189.26	192.57

[Table 6.7]

Source: Panchayatiraj Deptt

## 6.2.2 Transport

**A. Road Transport:** Road transport accommodates an overwhelming proportion of passenger and freight traffic among all major modes of transport in Odisha. With remarkable expansion of road length (highways & other roads) over the years, the

motor vehicle (MV) population have grown many fold in Odisha. As on 31st March 2016, the State has 58.41 lakh 'registered' and 54.91 lakh 'on road' vehicles. 5.13 lakh new vehicles were registered in 2015-16. Details are given at below.

### Motor Vehicles on Road in Odisha

Vehicles	Number of vehicles on road as on						
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Goods vehicle (truck to tempo)	159881	169032	188974	268065	235112	249001	270071
Public/Private bus	8908	12264	13565	25432	15755	16621	17770
Motor car / jeep / taxi	164614	189197	228921	315486	310641	349561	389787

<b>Auto rickshaw</b>	55364	55364	66847	80372	82695	97570	113125
<b>Motorecycle / scooter / mopeds</b>	2132508	2453347	2784485	3307110	3544754	3928199	4430546
<b>Others (tractor, trailers, treckers, &amp; Others)</b>	120792	154740	171644	226995	208755	234950	269365
<b>Total</b>	2639576	3033944	3454436	4223460	4397712	4875902	5490664

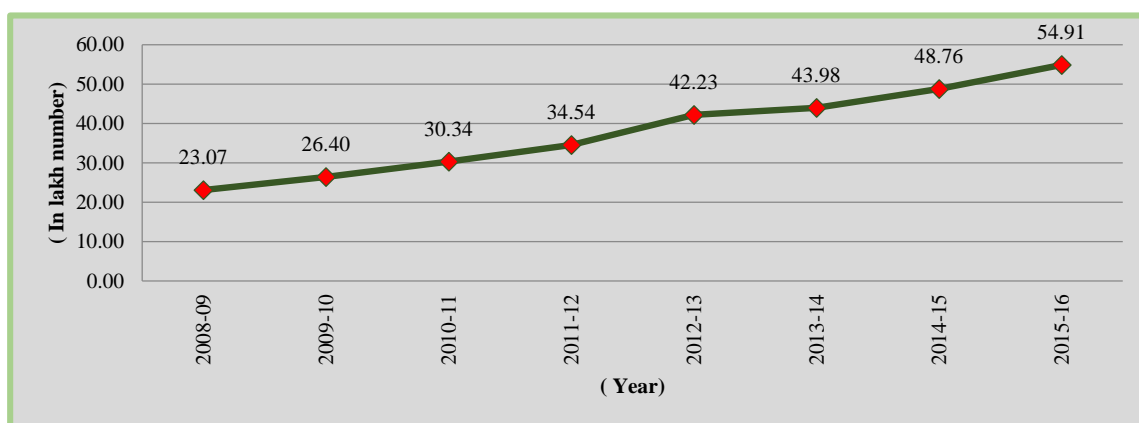
[Table 6.8]

Source: State Transport Authority, Odisha

### On Road Vehicles

The trend of “on road” vehicles in Odisha is presented in figures 6.3(A) & 6.3(B), which shows an annual average growth.

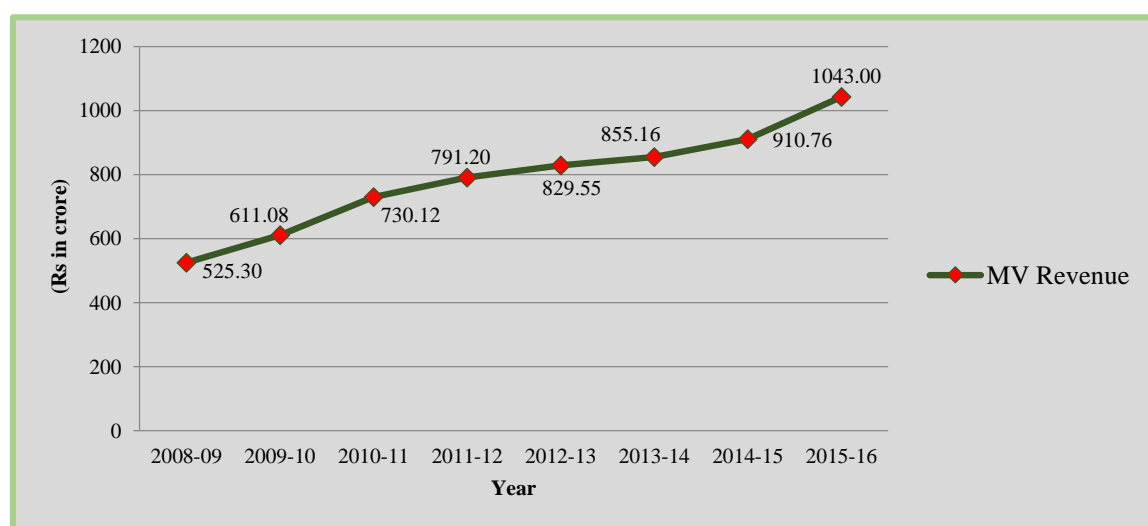
#### Trend of ‘On Road’ vehicles in Odisha



[Figure 6.3 (A)]

Source: State Transport Authority, Odisha

#### Trend of MV revenue collected in Odisha



[Figure 6.3 (B)]

Source: State Transport Authority, Odisha

### Motor Vehicle Population

Odisha has heterogeneous mix of composition of MVs which is skewed in percentage share. More than 80 percent of the MV population are 2-wheelers followed by car/taxi (7 percent). The predominance of personalized vehicles like 2-wheelers, cars etc become an area of concern for the State in terms of traffic congestion, management, auto pollution, parking and road accidents problems. Heavy motor vehicles (HMV) such as buses, trucks, tractors are mostly privatized in the State. As on 31st March 2016, 17770 number of buses

(372 public buses & 17398 private buses) were plying on roads in Odisha with 42 buses per lakh of population. Goods movements are predominantly managed by 2.70 lakh vehicles in Odisha. So trucks bear enormous importance in the goods movement, delivery, and accessibility to producers & consumers.

### Motor Vehicle Revenue

During 2015-16, a sum of Rs1043.00 crore of motor vehicle revenue was collected against the target of Rs.1070.00 crore and the same has increased by 14.54 percent over previous year. Details are given at below.

### Motor Vehicle Revenue

(Rs. in Crore)

Year	Target	Collection	% of Collection	Growth Rate
2004-05	320.00	338.11	105.70	20.69
2005-06	400.00	405.66	101.40	19.98
2006-07	500.00	425.80	85.20	4.96
2007-08	500.00	459.78	91.96	7.98
2008-09	580.00	525.30	90.57	14.25
2009-10	600.00	611.08	101.85	16.33
2010-11	725.00	730.12	100.02	19.48
2011-12	870.00	791.20	90.94	8.36
2012-13	850.00	829.55	97.59	4.78
2013-14	900.00	855.16	95.02	3.09
2014-15	972.00	910.76	93.70	6.50
2015-16	1070.00	1043.00	97.47	14.54

[Table 6.9]

Source: State Transport Authority, Odisha

### Motor Vehicle offences

Motor Vehicle offences increased in the State. During 2015-16, about 208151 offences were detected and Rs.11.48 crore revenue was

collected as against, 81042 offences detected and Rs. 23.95 Crores revenue collected during 2014-15. The details of motor vehicles have been indicated at below.

### Revenue receipt from Motor Vehicle Offences

Year	No. of offences detected	Revenue collected (Rs. in crore)
2004-05	102019	23.38
2005-06	117320	37.52
2006-07	92356	25.58



Year	No. of offences detected	Revenue collected (Rs. in crore)
2007-08	109242	34.62
2008-09	106539	35.16
2009-10	96637	40.11
2010-11	107116	42.65
2011-12	107965	43.19
2012-13	103308	36.59
2013-14	77123	32.72
2014-15	81042	23.95
2015-16	208151	11.48

[Table 6.10]

Source: State Transport Authority, Odisha

i) Policy and administration of Road Transport: Transport is a concurrent subject. Odisha is the leading State in India to declare State Transport Policy in 2007. The main objectives of this policy are: to increase competition, efficiency, transparency, accessibility and adequate availability of transport services in the State, ensure user friendly road transport and evolve an improved urban transport system. The policy included forming institutional and regulatory mechanisms like the Odisha Transport Infrastructure Development Authority (OTIDA) and Odisha Transport Regulatory and Advisory Council (OTRAC). It also identified special thrust areas to modernize railways, waterways and airways in the State. The State Transport Authority (STA) is the

apex regulatory body that manages transport administration, regulation, revenue collection and road safety in the State. The regulatory mechanism of STA includes economic regulation (fare, taxes, revenue etc), physical & infrastructural regulation (vehicle, maintenance, fitness, amenities etc.), and social policy regulation (energy, safety, user interest etc.). Odisha has 35 RTOs, 13 border check gates, 1 Government driving training school at Bhubaneswar, 1 PPP mode driving training school at Chatia, Jajpur and more than 70 privately run driving training schools functioning under STA. Odisha State Road Transport Corporation (OSRTC) provides public transport bus services and amenities to passengers and road users.

#### Biju Gaon Gadi Yojana ( BGGY)

Government of Odisha launched a rural transport connectivity scheme, named as BGGY, in February 2014 to make the mobility of rural people more accessible, comfortable, economical and diversified. BGGY operate in 3 phases, 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> phase covering 12, 5 and 13 districts respectively. As on 31<sup>st</sup> March 2016, 501 buses under BGGY are plying.

Major initiatives on road transport during 2015-16 are elaborated. One HMV driving training school was established at Chatia in Jajpur district on PPP mode. It is proposed to set up 2 driving training schools on PPP mode

at Berhampur & Keonjhar. A new bus stand is constructed at Malatipatapur, near Puri at a cost of Rs 70.70 crore during Nabakalebar at Puri held in 2015. Online application for learner's license, permit issue, tax collection,

e-dispatch of driving license & registration certificate and enforcement (Tough book) have been introduced by STA. Two major border check gates Laxmannath and Loharchati have been modernized.

ii) **Road Accidents and Safety Measures:** Road accident is closely associated with mobility. Faster growth of vehicle population, heterogeneous mix of vehicles, technology development in transport, poor driving skills and deficient road condition and human error etc have led to an imposing dimension & severity of road accidents in the State.. During 2015, 10542 road accidents with lives of 4303 were recorded against 9648 road accidents in 2014. The fatality rate due to road accidents in Odisha increased from 40.70 deaths per 100 accidents in 2014 to 40.9 in 2015. STA, Odisha collaborates with Odisha Road Safety Council, Ministry of Road Transport and Highways, Police Department, voluntary organizations and State Truck and Bus Owners Associations to implement road safety measures. During 2015-16, the STA implemented the following initiatives to maintain road safety. Govt. of Odisha has formulated “Road Safety” Policy of Odisha - 2015 with the objective of reducing road

accidents and fatalities by 20 percent within 2020. A public call centre with toll free telephone number has been established in STA for redressal of grievances and assistance of general public and to act as an accident help line. School bus policy has been formulated for safe transportation of the school children. Accident black spots have been identified by road Department and traffic calming technique has been taken up. 37 Highway interceptors are deployed for checking drunken driving and rash driving etc. 9 accident helpline centers, 20 ambulances & 15 cranes have been deployed on highways to provide round the clock post-accident trauma care services to accident victims. One traffic safety training park and one First aid Training Centre are established at Chandrasekharpur, Bhubaneswar.

iii) **Odisha State Road Transport Corporation (OSRTC):** OSRTC functions to provide safe and dependable transport facilities to the public. During 2015-16, the Corporation had 371 buses on road with an average fleet strength of 459 and regular staff strength of 570 with a bus staff ratio of 1:3.48. Vehicle position and income performance of OSRTC during 2015-16 are given below.

#### Vehicle Position of OSRTC

On-road Vehicles	Off-road Vehicles	No. of Routes	Fleet Utilisation	Average vehicle utilisation
371	95	220	81%	242 Km.

[Table 6.11]

Source: OSRTC

#### Financial Position of OSRTC

Per K.M. Expenditure	Income	Expenditure	Per K.M. Income	Per K.M. Expd.	No. of passengers transported	Parking fees collection	Profit/Loss during 2015-16
Rs.23.17	Rs. 1817.00 Lakhs	Rs. 7531.00 Lakhs	Rs. 26.71	Rs. 23.17	69.64 Lakhs	Rs.165.21 Lakhs	(+) Rs.2.86 crore

[Table 6.12]

Source: OSRTC

Year wise details of OSRTC have been indicated at below.

### Capital Assets of Odisha State Road Transport Corporation (OSRTC)

Year	Fleet strength	No. of buses on road	Capital investment (Rs. in crore)	Employment/ Staff strength (Regular)	Number of passengers carried (in lakh)
2004-05	258	228	134.98	1336	58.41
2005-06	259	230	134.98	1243	55.2
2006-07	273	227	161.34	1192	62.87
2007-08	259	231	171.29	1114	50.52
2008-09	297	264	176.29	1045	51.18
2009-10	322	279	176.29	990	51.93
2010-11	359	283	176.29	940	48.25
2011-12	381	307	176.29	878	56.66
2012-13	376	294	159.43	870	56.55
2013-14	422	299	167.43	697	54.84
2014-15	446	339	162.44	623	63.62
2015-16	459	372	162.44	570	69.64

[Table 6.13]

Source: Odisha State Road Transport Corporation

iv) **Achievements of OSRTC in 2015-16:** Against 100 light commercial vehicles (LCV), 90 numbers of vehicles have been purchased and already put into service in new routes of L.W.E. affected region under “Biju Gaon Gadi Yojana”. Out of 23 numbers of bus depots, 8 new depots have been opened at Phulbani, Malkangiri, Rayagada, Nawarangpur, Gajapati, Deogarh, Sundargarh, Nuapada to strengthen L.W.E. region. 440 Electronic Ticketing Machines (ETMs) with GPRS and RFID have been purchased for implementation in all routes of OSRTC to check leakage of revenue. Web-based Ticket Booking System has already been introduced in 15 depots out of 23. Besides, new units to be opened will be computerized after necessary infrastructure facility. E-booking through OSRTC portal ([www.osrtc.in](http://www.osrtc.in)) have been developed using mobile apps i.e. [makemytrip.com](http://makemytrip.com) and [busindia.com](http://busindia.com) for online booking of bus tickets. Total 81 Prepaid franchise ticket booking agents have been engaged as on 01.08.2016. Step have been

taken to increase no. of franchisee to Corporation (OSRTC) enhance revenue. Out of 220 scheduled routes 90 routes have been leased-in. Break-even analysis has been taken upto set minimum guaranteed revenue expectations.

v) **Relative Efficiency of OSRTC:** The NITI Aayog measures the efficiency of different State Transport Corporations by four criteria: (a) vehicle productivity, measured by revenue earning per bus per km, (b) staff productivity, measured by revenue earning per km per worker per day, (c) fuel efficiency, measured by km per litre, and (d) fleet utilization in percent terms. Vehicle productivity in case of OSRTC for 2015-16 is Rs.26.71, staff productivity is 159 and Bus-Staff ratio is 1:3.48 whereas Fuel efficiency is 4.70 km. per litre and fleet utilization is 81 percent.

**B. Railways:** Railway routes pass through twenty-three districts of the State, excluding Boudh, Deogarh, Kandhamal,

Kendrapara, Malkangiri, Nawarangapur and Nayagarh. The density of coverage is relatively high in some regions of the State, while central parts remain largely untouched. The detailed district-wise railway coverage, are provided in Annexure 6.6. A large disparity across districts exists. By the end of 2015-16, the State had 2606.267 km of railway lines. Overall, railway coverage is poor in the State and this is one of the factors that has hampered the pace of its industrial development. The railway route length in the State per thousand sq km, which is the same as railway density, is about 16 km, while the national railway density is around 20 km. During 2015-16 the following progress of railways in Odisha have been made:

i) Government of Odisha made committed contribution of equity of 26 percent for 2 SPV mode railway projects. Rs 105.70 crore & Rs 127.80 crore were contributed by State Government for Haridaspur-Paradeep & Angul-Sukinda rail Projects respectively from 2013-14 to 2015-16. The project operation are stepped up by this contribution.

ii) State Government provided free of cost land & 50 percent of construction cost for stretch of 112-289 kms (Daspalla-Balangir) segment of total Khurda road-Balangir Railway project after Ministry of Railway sanctioned for 0-112 km stretch (Khurda road-Daspalla) segment only of the same route due to low economic return factor. An amount of Rs 12 crore was provided for land acquisition and Rs.38 crore for construction as state share during 2015-16.

iii) Odisha will provide Rs 60 crore for modernization of Bhubaneswar Railway Station.

iv) Land acquisition have been completed for 329 villages out of total 333 villages for 4

ongoing railway projects namely Haridaspur-Paradeep, Khurda road- Balangir, Angul-Sukinda and Talcher- Bimalagarh rail links.

v) A budget allocation of Rs. 4682 crore during 2016-17 has been made in favour of state in Railway Budget enhancing 30 percent from last year with sanction of following 5 nos. of important new railway lines such as Jeypore – Nawarangapur, Jeypore – Malkanagiri, Sambalpur – Brahmapur, Badbil – Banspani and Junagarh – Nawarangapur – Ambaguda rail lines.

### C. Water Transport:

i) Paradeep Port: Paradeep Port, declared as the 8th major port of India in April, 1966 by Government of India, is the only major port in Odisha and the first major port on the East Coast commissioned in independent India. The port is situated 210 nautical miles south of Kolkata and 260 nautical miles north of Visakhapatnam at latitude 20°15' 58.63' N and longitude 86°40' 27.34' on the East coast. It has an artificial type lagoon of 500 meters length, 160 meters width and one turning circle of 520 meters diameter. The port is equipped with 15 berths, three single point moorings and one Ro-Ro jetty for handling various cargoes. Of this, 8 berths are fully mechanized for handling of iron ore, thermal coal and POL. Two berths are captive berths in which fertilizers are handled, one berth has been allotted to M/s. ESSAR for handling of iron-ore pellets on captive basis and the others are multi-purpose in nature and semi mechanized. The port has 126.94 million tons of cargo handling capacity as on 31st March 2016. The major ongoing capacity addition projects in the Port are Southern oil jetty, multipurpose clean cargo berth, Deep drought coal berth and Deep drought iron ore berth on BOT basis. During 2015-16, 76.39 million tons of cargo (47.90

million tons of import and 28.49 million tons of export) was handled through this port with an average of 4.75 hours pre-berthing detention, 2.15 days turn-around time and 21139 MT ship berth-day output. POL and

thermal coal together constituted 78.00 percent of the total cargo handled through this port during 2015-16. Details of the year wise Cargo handled by Paradeep Port have been indicated below.

### Cargo handled at Paradeep Port

(in million tonnes)

Year	Import	Export	Total	Growth (%)
2004-05	8.44	21.66	30.10	18.92
2005-06	11.42	21.69	33.11	10
2006-07	13.66	24.86	38.52	16.34
2007-08	16.85	25.59	42.44	10.18
2008-09	19.89	26.52	46.41	9.35
2009-10	29.18	27.83	57.01	22.84
2010-11	31.22	24.81	56.03	(-1.72)
2011-12	35.99	18.26	54.25	(-3.18)
2012-13	39.11	17.44	56.55	4.24
2013-14	40.67	27.33	68.00	20.25
2014-15	46.19	24.75	71.01	4.43
2015-16	47.90	28.49	76.39	7.57

[Table 6.14]

Source: Paradeep Port Trust

Major achievements of Paradeep Port Trust (PPT) during 2015-16 are given below:

PPT handled 76.39 million tons of cargo, the 2nd highest position of cargo traffic among major states for last 3 years. 3 projects were awarded namely Supply, Installation, Commissioning operation & maintenance of RFID System at Paradeep port. Signing of concession agreement with JSW Paradeep terminal Pvt. Limited (JSWPTPL) of new Deep Draught Iron Ore Berth and new Multipurpose Clean Cargo berth. 100 percent utilization of installed capacity of 21 MTPA of mechanized coal handling plant and handled 23.63 MTPA during 2015-16.

Amongst the Major Ports, PPT is predominantly using Rail and pipeline mode for Cargo conveyance and thereby reducing the road traffic. For the first time 11,473 tons of Alkylate and 18,937 tons of Naptha (POL

Product) were handled during the month of January, 2016 and 18,937 tons of Naptha (POL Product) was exported during the same period.

ii) **Other Ports:** With 480 kms of coast lines, Odisha has 13 potential sites for minor ports development. These minor ports are located at Gopalpur, Behuda Muhan & Palur in Ganjam district; Baliharchandi & Astaranga in Puri district; Jatadhar Muhan in Jagatsinghpur district; Inchri, Chandipur, Bahabalpur, Kirtania & Bichitrapur (Talasari) in Balasore district and Dhamra & Chudamani in Bhadrak district. Dhamra port is commercially operational while Gopalpur and Kirtania minor ports are under development with private sector support. Government of Odisha makes efforts to develop a riverine

port on Mahanadi River near Paradeep to boost coastal shipping. Odisha has declared Port Policy in 2004, Odisha Boat Rules 2004 and Maritime Board Bill, 2012 for proper development, management, registration, operation and monitoring of ports and boats with private participation.

iii) **Inland Water Transport (IWT):** IWT has vast potential but less network in Odisha. The passenger launch services are used in remote areas where other modes of transport are generally lacking. Inland water transport services are provided by the State Government. The Directorate of Port and Inland Water Transport is under the administrative control of Commerce and Transport Department. Government of Odisha

is the nodal agency, which controls activities relating to passenger launch services, survey and registration of inland crafts. Passenger motor launch services are operative in five different water routes in two sectors, i.e., Chandbali and Balugaon sectors. Chandbali sector provides launch service from Chandbali to Talachuan, Chandbali to Aradi and Bhitarkanika (on reservation) through 4 numbers of motor launches. Balugaon sector provides services from Balugaon to Krushnaprasad Gada and Kalijai through 3 motor launches and also services from Nuagada to Ganda Kulai via- Kaliakana with the help of one motor launch. During 2015-16, 1.64 lakh passengers moved by IWT and Rs 25.28 lakh revenue were collected from fare.

#### Passenger Traffic and Revenue Collected from Inland Water Transport Services

Year	No. of Passengers (in lakh)	Fare Collected(in Rs. Lakh)
2005-06	1.33	19.52
2006-07	1.15	17.21
2007-08	1.08	18.75
2008-09	1.04	19.19
2009-10	1.22	23.08
2010-11	1.42	24.96
2011-12	1.26	21.22
2012-13	1.25	20.29
2013-14	1.25	21.62
2014-15	1.42	20.26
2015-16	1.64	25.28

[Table 6.15]

Source: Directorate of Inland Water Transport, Odisha

Table 6.15 provides data on passengers and revenues raised from 2005-06 to 2015-16. Government of Odisha has formulated Odisha Boat Rules, 2004. As per these rules all types of boats are to be surveyed and registered before plying in inland waters of the State. During the financial year 2015-16 an amount

of Rs. 4,51,400/- has been collected from 350 boats towards survey, registration and renewal charges. The Executive Engineer, Ports & IWT, Mechanical Division, Cuttack under the Director, Ports & Inland Water Transport conducts examination for granting certificates of competency to Serangs, Masters, Engine

Drivers and Inland Engineers. During 2015, 245 candidates appeared for certificate examination and 203 of them passed. Crew Training Institute, Chandabali in the district of Bhadrak also functions under the Directorate of Ports and Inland Water Transport. At present the institute conducts two types of courses: (i) 10 Month Regular Course for general candidates, and (ii) 3 Month Refreshing course for in-service candidates in Engine & Deck Rating. The trainees of this institute get their jobs in-side and out- side the State.

**D. Civil Aviation:** The Directorate of Civil Aviation is to look after the use and maintenance of the State Government's passenger aircraft and trainer aircrafts, training of student pilots, and construction and development of air strips in the State. There are 19 airstrips across 15 districts of which 12 are owned by Government of Odisha. There are sixteen helipads in Odisha. Biju Pattnaik Airport at Bhubaneswar has been declared as International air port. A proposal for procurement of new aircraft is under consideration. A Government Aviation Training Institute, set up under a public-private-partnership mode, has started functioning since November, 2008. An amount of Rs 30 crore has been proposed during 2015-16 for construction & development of existing airstrips & their infrastructure along with construction of new airstrip at Malkangiri.

## 6.3 Telecommunication and Post Offices

### 6.3.1 Telecommunication

Telecom acts as a stimulus for the development process. Over the past decade, Odisha's achievement in this sector has been quite impressive. The gradual approach towards telecom sector reforms, through selective privatization and managed competition in different market segments lead to the impressive advancement of the telecommunication sector in the state in recent years. The effect of telecommunications on the productivity in various sectors of an economy is enormous. The telecommunication network in Odisha has vastly expanded over the years. During 2015-16, there were 2.93 crore telephone subscribers in the State, which is about 2.77 percent of total telephone subscribers in the country. Out of total 2.93 crore subscribers, 98.96 percent were wireless subscribers and the balance 1.04 percent were wire line subscribers. The overall tele density of the State (i.e. number of telephone connections per 100 population) is less than the national average. There is also a wide gap between rural and urban tele density. In Odisha, the rural tele density during 2015-16 stood at 49.55 percent, while the urban tele density was 159.75 percent. The corresponding figures for national level stood at 51.37 percent and 154.01 percent respectively during the same period. Table-6.16 shows the category wise and region wise tele density for Odisha and all India for the year 2015-16. Figures 6.4 compare tele density in rural and urban Odisha vis-à-vis all India levels.

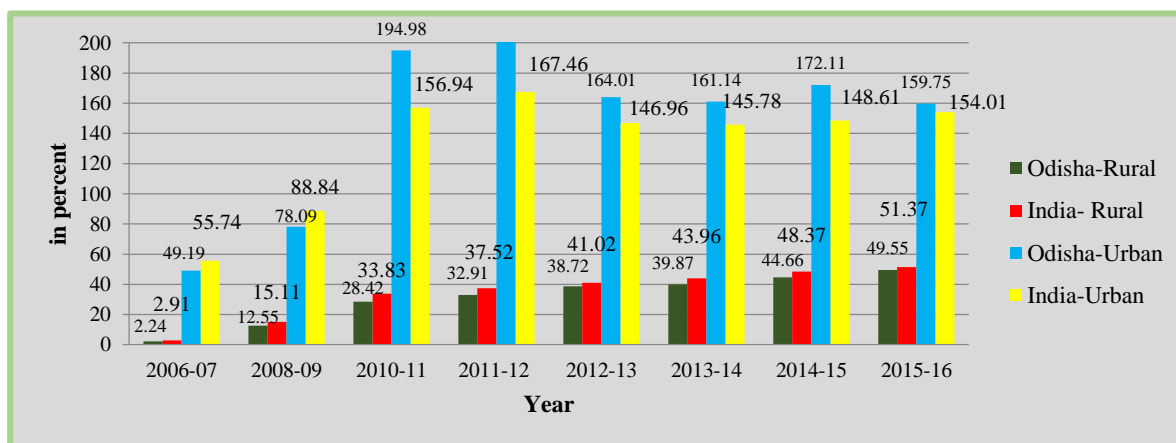
Tele density of Odisha and India as on 31<sup>st</sup> March, 2016

Particular	Odisha	India
<b>Wireless Tele density</b>		
Rural	49.34	50.88
Urban	156.66	148.73
Total	68.37	81.38
<b>Wireline Tele density</b>		
Rural	0.21	0.49
Urban	3.09	5.28
Total	0.72	1.99
<b>Overall Tele density</b>		
Rural	49.55	51.37
Urban	159.75	154.01
Total	69.09	83.36
<b>Total Subscribers (in Millions)</b>		
Rural	17.33	449.17
Urban	12.04	609.69
Total	29.37	1058.86

[Table 6.16]

Source: TRAI, GoI

Tele density in Odisha &amp; India (in percent)



[Figure 6.4]

Source: TRAI, GoI

### 6.3.2 Post Offices

Odisha has higher Postal density than the national average. During 2015-16, there were 8,169 post offices in Odisha comprising 35 Head Office, 1,162 SOs, One EDSO and 6,971 EDBOs. Among these, 7,573 (93percent) were in rural areas. Many post offices provide regular products and services as well as

premium postal services, including speed post, express parcel post, mass mailing service, corporate money order service and satellite mail service, greeting post and retail post. As per an evaluation made internally as well as through an external agency, Gopalpur Post Office in Berhampur Postal Division was rated



as the best at the national level. Its staff was deputed for training abroad at the Asia Pacific Postal College, Bangkok for a week under the Reward and Recognition scheme. As on

March 2016, 44 ATMs have been installed in Odisha circle. Details of availability of postal services in Odisha v/s All India have been shown at below.

#### Availability of Postal Services, Odisha and All-India

Year	Odisha			India		
	Rural	Urban	Total	Rural	Urban	Total
2006-07	7582	579	8161	137508	17696	155204
2007-08	7583	579	8162	NA	NA	NA
2008-09	7585	577	8162	NA	NA	NA
2009-10	7575	585	8160	139182	15797	154979
2010-11	7583	578	8161	139040	15825	154865
2011-12	7582	581	8163	NA	NA	NA
2012-13	7577	588	8165	139164	15692	154856
2013-14	7570	597	8167	139182	15700	154882
2014-15	7576	593	8169	NA	NA	NA
2015-16	7573	596	8169	139222	15717	154939

[Table 6.17]

Source: Chief Postmaster General, Odisha

## 6.4 Science and Technology

### 6.4.1 Information Technology

The Government of Odisha has been proactive in incorporating IT in its own administration as well as helping the growth of IT in general. Electronics & Information Technology Dept. of the state has the mandate for development, co-ordination, supervision of IT activities including computer, communication, Software & electronics in the State. OCAC, OSEDC, IIT, STPI & IDCO are the institutions that help in promotion of IT & e-governance projects in different sectors of Government. IT Department has already formulated industry friendly ICT policy-2014 to enable IT to reach the common man so as to narrow down the digital divide. The policy aims at sustainable employment generation, increasing investment in IT/ITES/ESDM sectors, door-step delivery of host services, enhancing transparency in governance etc. The following achievements

have been made by the Electronics & Information Technology Department during last one year i.e. 2015-16.

The name of information Technology Department has been changed to Electronics & Information Technology Department as per approval of Cabinet on 13.08.2015 in order to give added emphasis to Electronics system Design and Manufacturing in the State along with e-governance.

A gazette Notification has been issued vide Electronics & Information Technology Department notification No, 2410 dated 20.08.2015 where in all Departments have been mandated to utilize 20 percent of their Plan Budget or 1 percent of the total budget towards execution of e-Governance project for efficient service delivery.

The Special Incentives Package Scheme of Government of Odisha are to attract more and more investments under ESDM Sector by

giving additional incentives under Capital Investment Subsidy, VAT & Entry Tax, Human Capital Investment Subsidy, Power Incentives, water incentives & Interest Subsidy etc. have been approved by Cabinet on 13.08.2015 and necessary Gazette Notification has been issued accordingly.

The Government have engaged Dr. Sam Pitroda as Technology Advisor to Government of Odisha. The STPI Incubation Centre at Balasore was inaugurated on 04.07.2015. OCAC has signed an MoU with NIELIT, Telecom Sector Skill Council (TSSC), Electronic Sector skill Council (ESSC) for Skill Development Training on ESDM Sector. The Telecom subject has been transferred from Commerce & Transport Department to Electronics & Information Technology Department and accordingly the E&IT Department is bringing out a new Telecom Policy for the State.

Now the following are the important activities (Road Map) of the Electronics & Information Technology Department to be executed through OCAC its “Technical Directorate”, IDCO Bhubaneswar & STPI Bhubaneswar during the financial year 2015-16.

**A. Digital India Programme:** The digital India Programme is a priority initiative of the government of India with a vision to “transform India into a digitally empowered society and knowledge economy”. The three key vision areas of the Digital India Programme include “Infrastructure as a utility to every citizen”, “Governance and Services on Demand” and “Digital Empowerment of citizen”.

**B. IT Investment under IT/ITES/ESDM Sector:** The State Govt. aspires to achieve the following milestones in next five years with effective implementation of the newly notified robust & futuristic ICT

Policy-2014. The policy envisages a gross ICT Turnover (including exports of software and IT services, ESDM, Domestic consumption and Training) of USD 4 Billion (Rs. 24,000 crores) from the present Rs. 2400 Crores. It aims at creating direct employment of 60,000 professionals in 800 IT/ITES/ESDM units. The State will invite 10 leading IT/ITES & 5 ESDM companies and to create a built-up space of 60 lakh square feet and a developed land bank of 2000 acres for IT/ITES /ESDM sectors.

**C. Rural BPO Scheme to create more employment in the state:** The E&IT Department is in the process of preparing a cabinet note for Rural BPO Scheme to create to at least 5000–10000 seats in all the STPI locations of the state to provide employment opportunity to the youth of the state close to their home towns.

**D. IT Procurement Procedure 2015:** The Government of Odisha has an ambitious plan of implementing e- Governance for efficient public service delivery in the state. This IT Procurement Procedure addresses some impediments in implementing e-Governance projects.

**E. Info Valley Project (Info city-II):** Info valley project (Info city-II) is under construction at Goudakashipur, Bhubaneswar. IDCO, Bhubaneswar has been assigned to implement the project by way of infrastructure development like construction of road and compound wall, water supply and electricity. The total land area earmarked for the project is 625 acres (262 acres SEZ, 215-EMC, 113 Green area and 35 Business Park).

In the meantime, 50.919 acres of land in Info valley SEZ area have already been allotted in favour of M/s. Infosys Ltd. which is the anchor tenant. Infosys has a plan of 15000 IT Manpower to be deployed at this center in next 3 years time.

**F. Establishment of IT investment Region (ITIR):** The State Government submitted a DPR for setting up of one IT investment Region (ITIR) as per the ITIR Policy of Government of India. The ITIR in Bhubaneswar covers about 10,210 acres (41.32 Sq Km) area at a distance of 15 Km from south Bhubaneswar in Jatni, Khordha and Bhubaneswar Tahasil. The cost involved is expected around Rs. 3700 Crores. Centre will be required to provide assistance of the order of Rs. 1750 Crores. The final approval from the ministry of communication and Information Technology is pending with Govt. of India.

**G. Green Field Electronic Manufacturing Cluster (EMC):** As per the National Electronics policy guideline, the State Government has submitted a DPR to Deity, Government of India for setting up of a Green Field Electronics Manufacturing Cluster (EMC) inside the info Valley in an area of 215 acres for necessary approval and placement of grant from Government of India to develop the same. Final DPR for EMC had been prepared by IDCO through IESA and already submitted to Deity, Govt of India for approval. The final notification is expected soon.

**H. Setting Up of new STPI in Odisha:** At present there are four software Technology Parks (STPIs) in Odisha at Bhubaneswar, Rourkela, Berhampur and Balasore. From Govt of India, proposal has been received for setting up of 6 more STPIs in the State at Jajpur, Sambalpur, Koraput (Jeypore), Angul, Rayagada and Kalahandi (Bhawanipatna) and feasibility report for the three STPIs at Angul, Sambalpur & Jajpur has already been sent to Govt. of India for final approval.

**I. Bhubaneswar City WiFi:** Govt. of Odisha has envisaged in creating Wi-Fi hot spots across Bhubaneswar to make the city completely Wi-Fi enable. The STPI Bhubaneswar has been entrusted with the work and the DPR is being prepared for tender. The PoC is going on very effectively at six locations like Saheednagar, Airport, Vanivihar, Surya Nagar, OUAT Area and Forest Park area.

**J. Semiconductor Characterization Lab & ESDM Incubation Centre at Bhubaneswar:** It has been decided to establish a Characterization Laboratory in the State jointly with STPI in the IIIT Campus, Bhubaneswar. It will be the first such lab in Eastern India which will help entrepreneurs to test the semiconductors for a minimal charge. STPI-Bhubaneswar has already signed the contract with the Agency on 24.04.2015 to initiate procurement of Lab equipment.

**K. IIIT in PPP Mode:** According to proposed scheme the Central Govt, State Govt. and Industry partner/ corporate partner will be stake holders. Capital cost i.e. Rs. 128 Crore (for each IIIT) to be contributed in ratio of 50:35:15 by Central Govt, State Govt. and Industry partner respectively. The DPR for IIIT in Odisha has been prepared and the selection of Industry Partner is under process. The E&IT Department will submit the DPR to MHRD soon after selection of Industry partner.

**L. OCAC Incubation Tower:** To promote Entrepreneurship in the State, Government have approved for construction of an IT Tower named "OCAC Incubation Tower" adjacent to existing OCAC Building, Bhubaneswar. As on date 34 incubation units have been allotted to start up IT Companies.

### **M. National e-Governance Plan (NeGP)**

**Projects:** The 4 components of NeGP have also included in Digital India Programme through e-Kranti are Odisha State Wide Area Network (OSWAN); Odisha State Data Centre (OSDC); The State Service Delivery Gateway (SSDG) and The Common Service Centre (CSC).

**i) Odisha State Wide Area Networks (OSWAN):** The State Wide Area Network envisages creating a core network for the entire State of Odisha covering the State Head Quarter, District Head Quarters, Sub-Divisional Headquarters & Blocks.

This network is connected from the State Headquarter (SHQ) to District Headquarters (DHQ) down to Block Headquarters (BHQ). GoI is also planning to connect the BHQ with GP through wireless connectivity. Govt. have decided to connect all Offices of the State as Horizontal Offices under OSWAN Horizontal Connectivity Project. M/s TCIL has been engaged as the Consultant for the Project.

**ii) Odisha State Data Centre (OSDC):** A State Data Centre has been set up in OCAC. Presently, 19 nos. of G2G and G2C application of various departments like e-District, e-Municipality, e-Registration, CCTNS and IOTMS have been hosted in OSDC. Many more application are in pipe line. Disaster Recovery (DR) site of OSDC has been activated from National Data Centre (NDC) at New Delhi, which ensure OSDC up and running in case of disaster. The database of the applications are updated in real time at DR site to ensure no or minimal loss in case of any type of failure in Data Centre.

**iii) Common Service Centre (CSC):** The Scheme is being implemented in Public Private Partnership (PPP) model with appointment of three private agencies such as M/s SREI Sahaj e-Village Limited, M/s

ZOOM Developers Pvt. Ltd and M/s Bharatiya Samruddhi Finance Ltd (BASIX). For implementation of CSC scheme, the entire state has been divided into 6 CSC Zones. Total 6510 CSCs have been rolled out as on end of August-2015 against the target of 8558. Now DeitY, GOI has approved CSC 2.0 for rollout of additional CSCs in the State.

**iv) State Service Delivery Gateway (SSDG):** The project has been formulated under the National e-Governance Plan (NeGP) to fulfill the vision of providing easy and convenient services to the citizens through remote access primarily through Common Service Centers (CSCs) and enabling the State Portal by implementing the key components of State Portal viz. SSDG, electronic Form (“e-Forms”) Application and Computing Infrastructure. The selection of Implementing Agency for this project is under process.

### **N. e-Governance Application:**

**i) e-District:** As per the integrated framework for Delivery of Services under e-District 6 nos of Citizen Centric Services are being delivered through e-District Project like Residential Certificate; Income Certificate; Caste Certificate; Solvency Certificate; Legal Heir Certificate and SEBC/OBC Certificate. More than 16 lakh Certificates have been issued electronically using e-District. It has been rolled out in all the Districts and it is implemented in more than 290 Tahasil Offices of the State.

**ii) e-Registration:** The project has been implemented to digitize registration process and delivery of documents across 185 Registration Offices of the State. It has improved administrative effectiveness & efficiency. The project is being implemented by Odisha e- Governance Services Ltd. (A SPV of OCAC & ILFS) in PPP mode.

**iii) e-Municipality:** e- Municipality is one of the Flagship Project that has significant citizens interaction Municipalities provide a large number of basic services for millions of citizen living in urban centers. The project is being implemented through M/s TCS and in first phase 44 ULBs are covered. Initially issue of Death and Birth certificates, payment of water rent and holding tax etc. are being made available to public and other services will be added shortly.

**iv) Odisha Secretariat Workflow Automation System (OSWAS):** The objective of OSWAS is to automate the functions at all the levels of administrative hierarchy in the Secretariat. Most of the work done by the government departments is workflow intensive; that is, there is a lot of information flow in the form of files. It also provides Document Management, Workflow Management, Collaborative environment and Knowledge Management in an integrated fashion and delivers an Electronic Workplace.

**v) Student Academic Management System (SAMS):** OCAC has implemented this project as an extension of e-college Project for Higher Education Department to introduce e-Admission and e-Administration. The Project has covered all the 671 Degree colleges and 1334 Junior colleges of the State. It is running successfully for the last five Academic Sessions.

**vi) e-Dispatch:** OCAC is implementing the e-Dispatch system in different Govt. Departments and other Sub-Ordinate Offices to automate the issue and dispatch of Government letters in real time. The implementation in 34 departments and 3250 sub-ordinate offices has been completed.

**O. OCAC Restructuring:** E&IT Department after obtaining the Government

Approval had constituted a Committee to look into the restructuring of OCAC. The Committee is headed by the Special Secretary IT and has members from GA (AR), Finance, Law and E&IT Departments. The Committee submitted its report in October 2014. After the approval of OCAC Governing Body, the Committee report is examined for Government Approval. Some of the Key recommendations are as follows.

i) Creation of 6 Divisions viz, General Administration, Industry Facilitation & IT Promotion, Finance & Procurement, e-Governance and Information Technology, Administrator, OSWAS. Each Division shall be headed by a GM level officer.

ii) 216 numbers of positions are required at OCAC. The present manpower of OCAC is 50. The 21 vacant posts should be filled and 32 new positions should be created. The Vacant posts are primarily at the level of DGM (3), systems Analyst (6) and Software Engineers (7). The new requirements are primarily for GM (4), Junior Maintenance Engineer (2). System Administrator (2), Network Administrator (2), Asst. Law Officer (1) and other Administrative and Accounts level positions.

**P. National Optical Fibre Network (NOFN)/Bharat Net Project:** As per the Government of India mandate all the Gram Panchayats of the state will be connected through Optical fiber connectivity under NOFN Project. This will also be extended to villages in the second phase. Bharat Broadband Nigam Limited (BBNL), a SPV of BSNL, PGCIL and RAILTEL, is the Nodal agency for implementing this project and for Odisha PGCIL is the agency to implement. The execution of National Optical Fibre Network (NOFN) is taken by the Gov. of Odisha with an MOU with Bharat Broadband

Nigam Limited (BBNL) more than two years for connecting the 6235 GPs in the State. The State Govt. granted the Right Of Way (ROW) to BBNL along with instructions to all Collectors to provide necessary support to BBNL for connecting all GPs. As per the target given by DoT for Odisha, the work in 30 districts will be covered in two phases. 3298 GPs of 74 blocks in 16 Phase-I districts like Dhenkanal, Jagatsinghpur, Boudh, Deogarh, Gajapati, Ganjam, Kalahandi, Kandhamal, Kendrapara, Keonjhar, Koraput, Malkangiri, Mayurbhanj, Nabarangpur, Nayagarh and Rayagada have been covered by December,2015.

**Q. UID Project:** The Aadhaar project in Odisha started in the year 2010. The State Government took proactive step for implementation of UID enrolment in Odisha. A State Level UID implementation Committee under Chairmanship of Chief Secretary, Odisha with Secretaries of different Departments and representative of UIDAI, Director, Census, Odisha, SIO, NIC, Chief Electoral Officer, Odisha was constituted on 11/03/2010. Last UID Implementation Committee meeting was held in November, 2015. The SRDH has been set up in SDC at OCAC Building. The data from UID Server is being ported on regular basis which contains demographic data along with photographs for Aadhaar number holders being given the consent to share. In addition, NPR Data seeded with Aadhaar number is also being populated in SFDH which shall act as reference data for various schemes of Government. The data available in SFDH shall subsequently be integrated with individual department data pertaining to schemes. Authenticate Infrastructure based on Biometric is being Implemented shortly.

#### 6.4.2 Institutions with State Government Initiatives

**A.** International Institute of Information Technology (IIIT), Bhubaneswar: IIIT, established by Government of Odisha at Bhubaneswar and notified as a Unitary University, aims to meet quality faculty requirement in the IT disciplines of Engineering Colleges and cater the need of IT & ITES industries. It mandates to nurture academic research in cutting edge technologies and industry sponsored research programmes. A sum of rupees 10 crore has been provisioned during 2015-16 for construction of infrastructures like hostel, studio apartment, faculty housing & guest house etc.

**B. Odisha Space Application Centre (OSAC):** OSAC is an apex organization promoting remote sensing technology in the State. Remote sensing data are used in agriculture, transport, land use, revenue, urban development, drinking water, flood mapping, wetland and wasteland development, block level resource mapping, forest and environment sectors. OSAC has undertaken several projects for the Central and State Governments. Important activities of OSAC during 2015-16 are depicted below.

Block level resource atlas and GIS data base generation has been developed under “Odisha Sampad” Land used map updation of Phulbani, Kendrapada, Biridi, Balikuda, Angul, Rajgangpur, Biramitrapur and Anandapur(Town) have been completed. Classroom teaching transmission in English,Mathamatics,Science and Geography has been made for class IX and X under EDUSAT programme. Five GPS survey for 13 Mining lease areas, 10 Mineral blocks and 1 coal block area has been completed. Authentication of map showing forest area

proposed for diversion for 84 proposals have been completed. Geo referencing of forest block of 50 forest division has been completed. Khariff rice acres and production forest for Odisha has been released in collaboration with MAHANALOBIS NATIONAL CROP FORECASE CENTRE. Wave base power atlas of Cuttack circle has been completed and this project has been developed for entire state. Land bank clusters have been identified and mapped for 2.4 lakhs acres in 22 districts. Inter draft Geospatial server has been installed in OCAC. A pilot project on Subagi Minor irrigation project in Narasinghpur block of Cuttack district on development of GIS based canal network monitoring system has been completed. Geospatial technology project has been implemented in 3 blocks of Cuttack district. OSAC guided the district level irrigation committee (DLIC) for preparation district irrigation plan for 6 districts i.e Angul, Dhenkhal, Kandhmal, keonjhar, Khorda & Mayurbhanj to implement Pradhan Mantri krishi Sinchayee Joyana (PMKSY) Shifting cultivation map of Koraput and Rayagada district has been prepared. DGPS survey of Samukabeach project near Mangala Nala of Puri district have been carried out. Geo conference map of Bapuji Nagar area has been prepared. GIS based plan for optical fibre routing connecting districts, blocks, GPS has been generated.

**C. Institute of Material Sciences (IMS):** The IMS provides research facilities in material science and conducting interdisciplinary research on special materials in order to exploit huge untapped natural resources materials available in Odisha and upgrade to value added products. During 2015-16, three research scholars of IMS have awarded their Ph.D. and out of them one from

Ravenshaw University and two from Utkal university. IMS published 02 research papers in international Journals and attended 04 international Conferences. A tubular furnace has been installed in IMS laboratory. Experimental research collaborations among UNISA, South Africa, USA are continuing. TSP programme have been completed through scientific exposure visit covering 338 schools of ST & SC development Department of Govt. of Odisha.

**D. Odisha Bigyan Academy (OBA):** OBA aims to popularize science and technology in the State. Monthly science magazines in Odiya “Bigyan Diganta” and “Science Horizon” in English were published during 2015-16. OBA organized a series of science events such as its Foundation Day, National science Day-2016 and World’s Student’s Day observations, presenting many science awards on Scientific Literature in Odia and popular science lectures. Also district level interactive sessions of science teachers and students workshops etc. were organized with inviting eminent scientists of international & national repute as Resource Persons and science students as target groups.

**E. Pathani Samanta Planetarium:** Pathani Samanta Planetarium aims at creating awareness on astronomy, astrophysics and space science among people and young students in particular. Since its inception in 1990, the Planetarium has increased its activities many fold. During 2015-16 (end of Feb 2016), 1421 numbers of PSP shows were conducted in this planetarium and about 1.58 lakh persons including 0.61 lakh children visited the shows. An amount of Rs. 30.41 lakh was collected as entrance fees. Year-wise details of visitors and revenue collected have been shown in Table 6.18.

### Visitors and Revenue Collected at Pathani Samant Planetarium

Year	No. of visitors	Revenue collection (in Rs.)
2004-05	92903	854652
2005-06	93522	848580
2006-07	133289	1219350
2007-08	112056	1336369
2008-09	90019	1097609
2009-10	88341	1116183
2010-11	47934	581657
2011-12	27166	3298851
2012-13	151508	2688914
2013-14	155516	2796520
2014-15	134724	2548290
2015-16	157855	3041110

[Table 6.18]

Source: Pathani Samant Planetarium

**F. Institute of Mathematics & Application (IM&A):** IMA aims at pushing research on mathematics, advance applications and nurture talents on mathematics. It conducts research activities in 7 advanced areas of mathematics. Regular workshops, seminars, training programmes for teachers and students, both for rural & urban areas are conducted. Three number of research papers were published in international journals, two numbers of PG students of NIT, Rourkela have done project work in IMA. A proposal to make IMA a Centre of Excellence is under consideration of the Government. IMA coordinated for award of scholarship offered by state council on science & technology to pursue PG in Basic science.

**G. National Informatics Centre (NIC):** National Informatics Centre (NIC) is a core Science and Technology Organization under the Department of IT of Government of India, and is actively working for the last three decades in the areas of Information and

Communication Technology (ICT) applications in Public Sector. NIC, Odisha State Centre, has been playing the principal role in promoting IT culture for effective governance at the State and district levels. Both the State Government and NIC have taken several initiatives in this regard. The major achievements of NIC, Odisha Centre include the following schemes during 2015-16:

- Aadhaar Enabled Jeevan Pramaan Certificate (Digital Life Certificate) for State Govt. Pensioners.
- Dynamic Portal of Odisha Crime Branch: This portal covers Tracking the Missing persons, Cybercrime, Women trafficking, Economic Offence Wing, Special task force, citizen charter, etc.
- ASSA (Automation of Small Savings Activities): This portal has been developed to capture data on small saving deposits at field level offices across the state.



- Online portal for registration of Odisha Building and other Construction Workers' Welfare Board: It provides a system to get online help and cess collection benefits to labourers.
- Online Cataloguing System of Odisha State Archives: It includes archive of Books, records, newspaper, publication, voice recordings of freedom fighters, maps, microfilms etc.
- Pathsala: The web based application is an integrated module for faculty registration, student and teacher attendance, classes taken status, time table management, online internal assessment etc.
- The web based applications like State Seed testing Laboratories have been integrated with the workflow automation system of Odisha State seed and organic products certification agency. Fertiliser Monitoring System, Workflow automation system of Odisha agro Industry Corporation, Odisha seeds Portal etc. have been developed in Agriculture sector.
- RIDF (Rural Infrastructure Development Fund): This portal has been developed to capture projects details taken under RIDF Scheme to monitor the physical and financial achievements of the projects.
- Supplies and Transactions automation system for Odisha State Beverage Corporation Limited (OSBCL) under Department of Excise has been undertaken.
- e-Office has been implemented for the State Transport Authority.
- e-Granthalaya: Web-based Library software has been implemented in 40 different locations including Govt. offices, Universities and Public Libraries.

**H. State Council on Science and Technology (SCST):** The SCST is the apex policy-making body for development of science and technology and overseeing the implementation of various programmes. It extends financial support for application-oriented research projects, publicity, seminars, workshops and conferences. The Council undertook some major activities during 2015-16. A scholarship programme @ Rs 2,000/- per month for 200 students has been introduced to promote and encourage meritorious students to pursue their post graduate studies in basic science subjects viz. physics, chemistry, mathematics, botany, zoology and geology. Action has been taken for setting up Sub-Regional Science Centre at Tukurla Bhati Tahsil in Bargarh district Umri near Jeypore in Koraput district, Bodapalasa in Keonjhar district, Khandapada in Naygarh district and Gopalpur in Ganjam district. Besides, the SCST is taking steps for establishment of District Science Centers. SCST have established patent information Centre (PIC) in Odisha. The project will run for a period of 5 years with financial support from Department of Science & Technology (DST), Government of India. Financial support is provided to regional science Centre Bhubaneswar for State level science exhibitions. There is a Documentation Centre-cum-library in this department, which provides up to date information to Research Scientists having a good number of books and journals. The external selection committee has recommended 10 students to get award of Biju Pattanaik Fellowship in Basic & Applied science. A new programme on research and development projects in Basic & Applied Science has been approved in which 5 R & D projects will be funded. Guidelines for awards of Biju Pattanaik Research Fellowship in Basic & Applied Science & Biotechnology for

SC & ST students & to regulate scholarship programme for meritorious SC & ST students to pursue PG courses in Basic science i.e. Physic, Chemistry, Botany, Geology, Zoology & Mathematics have been prepared.

### **6.4.3 Biotechnology**

Biotechnology emerged as a leading component of science & technology that has direct bearing on food security, nutritional supplementation, health care production and industrial applications etc. Odisha made impressive progress on biotechnology during 2014-15. Research grant has been sanctioned

for 13 ongoing biotechnology Research & Development projects. 32 scholarships have been provided to PG students of different Universities & colleges for biotechnology studies. The State has been developing a State of the Art Biotech Pharma IT Park over an area of 64.613 acre in Bhubaneswar in a PPP mode. Guideline for awards of Emeritus Fellowship in Biotechnology and for awards of Biju Pattanaik Research Fellowship in science (Biotechnology) has been prepared.

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## Human Development and Poverty

*The development approaches of Odisha continue to strike a balance between economic growth and human welfare. Its development approaches embody social infrastructure as the priority strategies. This has led to impressive poverty reduction and improved human development index in recent decade in the State. Poverty ratio & poverty gap ratio in Odisha recorded the fastest reduction among major States in India. The State expects to achieve the Millennium Development Goals (MDG) target with an estimated poverty ratio of 28.6 percent in 2015. The newly launched Sustainable Development Goals (SDG) target to end poverty by 2030 remain to be achievable for Odisha. On human development front people start having longer, healthier and creative lives with higher income in the State. The State Human Development Index (HDI) improved from 0.267 to 0.442 between 1981 & 2011. The State showed some striking performances in social sector development as well as in reduction of regional disparities through series of economic measures & policies*

The economic performance of the State goes beyond the rise in material standard of living to measure the human welfare and quality of life of people. While GSDP and per capita income measure the standard of living, creation and development of social infrastructure, poverty ratio and HDI etc., measure the human welfare and quality of life. Persistent poverty and vulnerable human development continue to remain as global, national and regional challenges. Odisha's economic policies and development strategies are articulated to combat poverty, improve HDI and remove regional disparities since last decade.

## 7.1 Poverty

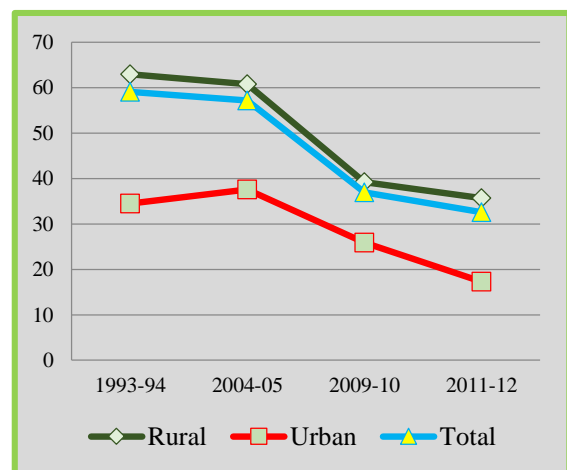
Poverty bears complex and multidimensional characteristics. It is perceived as “deprivation in well-being” and encompasses several dimensions of deprivation. Deprivation is not an isolated phenomenon confined to income or material deprivation only. It extends to social, political, intellectual, and healthcare and vulnerability deprivations in the society. In addition, it forms an integral component of human development. MDG mandated to bring down the percentage of people below poverty line to half in 2015 of its 1990 level. After the terminating year of MDG in 2015, the newly launched Sustainable Development Goal (SDG) finds the basic causes of poverty as unemployment, social exclusion, and high vulnerability of certain population to disasters, diseases and other phenomena which prevent people from being productive. SDG mandates to end poverty by 2030.

Extent of poverty in the State can be manifested in terms of dimension of poverty, magnitude of deprivation and inequities of poverty. Dimension of poverty is reflected in head count ratio. Deprivation level is measured by poverty gap ratio while inequities in poverty are shown in the Gini coefficients & poorest quintile of national consumption expenditure. Poverty estimates for Odisha as well as for all States of India are based on Tendulkar's Committee Report of 2011-12 and NSSO results.

### 7.1.1 Dimension of poverty

Poverty in Odisha declined sharply between 2004-05 and 2011-12. This is reflected at Figure 7.1 & Table 7.1.

**Trends in Poverty Head Count Ratio (%) for Odisha as per Tendulkar Committee Methodology**



[Figure 7.1]

Source: DE&S and Niti Ayog, Odisha

## Poverty Head Count Ratio (Percent) for Odisha and India

Year	Reference Period	Odisha (%)			India (%)		
		Rural	Urban	Total	Rural	Urban	Total
<b>Expert Committee Methodology</b>							
1973-74	URP	67.28	55.62	66.18	56.44	49.01	54.88
1977-78	URP	72.38	50.92	70.07	53.07	45.24	51.32
1983	URP	67.53	49.15	65.29	45.65	40.79	44.48
1987-88	URP	57.64	41.53	55.58	39.09	38.20	38.36
1993-94	URP	49.72	41.64	48.56	37.27	32.36	35.97
2004-05	URP	46.80	44.30	46.40	28.30	25.70	27.50
<b>Tendulkar Committee Methodology</b>							
1993-94	MRP	63.00	34.50	59.10	50.10	30.80	45.30
2004-05	MRP	60.80	37.60	57.20	41.80	25.70	37.20
2009-10	MRP	39.20	25.90	37.00	33.80	20.90	29.80
2011-12	MRP	35.69	17.29	32.59	25.70	13.70	21.92

[Table7.1]

Source: NITI Aayog, New Delhi & DES, Odisha

The poverty lines of Odisha are estimated at Rs 695 for rural and Rs 861 for urban area by 2011-12. 32.59 percent of State population (138.2 lakh people) were below poverty line in Odisha by 2011-12 based on MPCE. About 82 lakh poor people in Odisha moved away from below poverty line to above poverty line in the span of 8 years. Poverty in Odisha has declined by 24.61 percentage points (average annual decline of 3.52 percentage points) from 57.20 percent in 2004-05 to 32.59 percent in 2011-12, the highest reduction among major States in India. India recorded 15 percentage points (average annual decline of 2.14 percentage points) of poverty reduction during the same period. The rural urban status of poverty reduction in Odisha is equally impressive. 75 percent of people live in rural Odisha. Poverty reduced by 25.11 and 20.31

percentage points in rural & urban Odisha respectively as against the lesser reduction of 16 & 12 percentage points for India during the same period. The social class wise and region wise estimates of poverty head count ratios in Odisha are major areas of concern. 63.52 percent and 41.39 percent of ST and SC communities respectively in rural Odisha were below poverty line in 2011-12. About 48 percent and 40 percent of population of rural area of southern region (that include KBK region i.e. undivided Kalahandi, Bolangir and Koraput districts) and northern region of Odisha were below poverty line in 2011-12 respectively. But it is equally reassuring that poverty among ST and SC communities has been reducing at a faster rate, i.e., 20.88 and 26.51 percentage points respectively from 2004-05 to 2011-12 ( Table 7.2).

### Head Count Ratio (Percent) by Social Classes for Rural Odisha

Year	Head Count Ratio (%) by Social Classes				
	ST	SC	OBC	Others	Total
2004-05	84.40	67.90	52.70	37.10	60.80
2009-10	66.00	47.10	25.60	24.50	39.20
2011-12	63.52	41.39	24.16	14.20	35.69

[Table7.2]

Source: NITI Aayog, New Delhi & DES, Odisha

Among the regions, the northern region had registered the highest reduction of poverty with 30.53 percentage points, followed by the southern region with 25.40 percentage points and the coastal region with 19.95 percentage points between 2004-05 & 2011-12 (Table 7.3).

### Head Count Ratio (Percent) by NSS Regions, Rural Odisha

Year	Regions			
	Southern	Northern	Coastal	Total
2004-05	73.40	70.50	41.60	60.80
2009-10	52.40	41.70	25.30	39.20
2011-12	48.00	39.97	21.65	35.69

[Table7.3]

Source: NITI Aayog, New Delhi & DES, Odisha

Poverty reduction measures in Odisha led Odisha to improve from 30th rank to 25th rank among the States during 8 years. The incidence of poverty in major States of India between 1973-74 & 2011-12 are depicted in (Table 7.4)

### Incidence of Poverty in Odisha vis-à-vis other Major States

Sl. No	States	Head Count Ratio ( % ) of Major States in India							
		1973-74	1977-78	1983	1987-88	1993-94	2004-05*	2009-10*	2011-12*
1	Andhra Pradesh	48.86	39.31	28.91	25.86	22.19	29.90	21.10	9.20
2	Bihar	61.91	61.55	62.22	52.13	54.96	54.40	53.50	33.34
3	Gujarat	48.15	41.23	32.79	31.54	24.21	31.80	23.00	16.63
4	Haryana	35.36	29.55	21.37	16.54	25.05	24.10	20.10	11.16
5	Karnataka	54.47	48.78	38.24	37.53	33.16	33.40	23.60	20.91
6	Kerala	59.79	52.22	40.42	31.79	25.43	19.70	12.00	7.05
7	Madhya Pradesh	61.78	61.78	49.78	43.07	42.52	48.6	36.70	31.65
8	Maharashtra	53.24	55.88	43.44	40.41	36.86	38.10	24.50	17.35
9	Odisha	66.18	70.07	65.29	55.58	48.56	57.20	37.00	32.59
10	Punjab	28.15	19.27	16.18	13.2	11.77	20.9	15.9	8.26
11	Rajasthan	46.14	37.42	34.46	35.15	27.41	34.4	24.8	14.71
12	Tamil Nadu	54.94	54.79	51.66	43.39	35.03	28.9	17.1	11.28
13	Uttar Pradesh	57.07	49.05	47.07	41.45	40.85	40.9	37.7	11.26
14	West Bengal	63.43	60.52	54.85	44.72	35.66	34.3	26.7	19.98
	All India	54.88	51.32	44.48	38.36	35.97	37.2	29.8	21.92

[Table 7.4]

Source: Tendulkar Committee Methodology

### 7.1.2 Magnitude of deprivation

Odisha's performance on reducing magnitude of deprivation was impressive. Poverty Gap Ratio (PGR) is the cardinal indicator to measure the extent of depth of poverty or magnitude of deprivation in the State. The indicator of Poverty Gap Ratio (PGR) reflects the degree to which mean consumption of the poor falls short of the established poverty line, indicating the depth of poverty. The poverty line for 2011-12 (under MRP method) was estimated as Rs 695/- for rural Odisha and Rs 861/- for urban Odisha. For India, the poverty line was Rs 816/- for rural area and Rs1000/- for urban area in 2011-12. During 2004-05 to 2011-12, the Poverty Gap Ratio (estimated from monthly per capita consumption expenditure data based on Mixed Recall Period (MRP)) declined significantly in rural areas of Odisha from 17.37 in 2004-05 to 7.01 in 2011-12, while in urban areas the decline was from 9.60 to 3.15 during this period. In India, the PGR reduced from 9.64 to 5.05 in rural area and from 6.08 to 2.70 in urban area between 2004-05 and 2011-12 (Table 7.5). Although the PGR of 10 States are higher than All India PGR, Odisha shows the sign of fastest PGR reduction. This is a notable achievement. Poverty Gap Ratio helps to provide an overall assessment of a region's progress in poverty alleviation and the evaluation of specific public policies or private initiatives.

#### Poverty Gap Ratio (MRP Consumption expenditure)

State	Rural		Urban	
	2004-05	2011-12	2004-05	2011-12
Odisha	17.37	7.01	9.60	3.15
India	9.64	5.05	6.08	2.70

[Table 7.5]

Source: NITI Aayog, New Delhi

### 7.1.3 Inequities in Poverty

Inequities in poverty can be assessed by two indicators i.e. Gini coefficient and MPCE share of poorest quintile. Gini coefficients depict the inequalities in the monthly per capita consumption expenditure among poor. The Gini coefficients of Odisha by social classes, region and rural-urban breakup between 2004-05 & 2011-12 are presented in Table 7.6, Table 7.7, Table 7.8 & Table 7.9 as follows:

#### Gini coefficients by Social Classes in Odisha (Rural)

Year	Social classes				
	ST	SC	OBC	Others	Total
2004-05	0.216	0.224	0.238	0.247	0.260
2009-10	0.215	0.210	0.224	0.244	0.247
2011-12	0.194	0.199	0.216	0.234	0.234

[Table 7.6]

Source: National Sample Survey Office (NSSO)

#### Gini coefficients by Social Classes in Odisha (Urban)

Year	Social classes				
	ST	SC	OBC	Others	Total
2004-05	0.326	0.295	0.315	0.306	0.333
2009-10	0.326	0.305	0.281	0.373	0.376
2011-12	0.362	0.294	0.307	0.328	0.345

[Table 7.7]

Source: National Sample Survey Office (NSSO)

#### Gini coefficients by NSS Regions in Odisha (Rural)

Year	Regions			
	Southern	Northern	Coastal	Total
2004-05	0.256	0.265	0.224	0.260
2009-10	0.253	0.250	0.225	0.247
2011-12	0.243	0.245	0.206	0.234

[Table 7.8]

Source: National Sample Survey Office (NSSO)

**Gini coefficients of Odisha & India (%)**

Year	Odisha		India	
	Rural	Urban	Rural	Urban
2004-05	0.260	0.333	0.266	0.348
2009-10	0.247	0.376	0.276	0.371
2011-12	0.234	0.345	0.280	0.367

[Table 7.9]

Source : National Sample Survey Office (NSSO)

Inequalities in consumption expenditure were less prevalent in both rural & urban Odisha than in rural & urban India by 2011-12 as shown in Table 7.1.9. The inequalities reduced in rural Odisha while it increased marginally in urban Odisha between 2004-05 & 2011-12. While the inequalities for both rural and urban India rise during the period. The southern, northern & coastal rural region of Odisha experienced a falling trend of inequalities in consumption expenditure and approaching towards a near equality since last few years. In rural coastal region the inequalities are less visible than in rural southern & northern regions of the State. Among the social classes in urban areas, the SC & OBC category show declining trend of inequalities while ST & Others category poor show increasing trend of inequalities since 2004-05. In rural areas, all the social classes experience fall in inequalities, SC communities falling at faster rate than rest of the social classes.

The other indicator of MPCE, share of poorest quintile also show the sign of diminishing inequalities in Odisha. The rising share of poorest population in Odisha on consumption expenditure to total consumption reflect a trend of diminishing inequalities in poverty distribution in Odisha. The share of the poorest 20 percent population in the State in terms of the monthly per capita consumption expenditure in total consumption (i.e. consumption accounted for by the poorest one fifth of the population) in the rural areas increased from

10.26 percent in 2009-10 to 10.90 percent in 2011-12 based on (Mixed Reference Period – MRP method). The share also increased from 7.39 percent in 2009-10 to 8.00 percent in 2011-12 in urban areas of the State. This is a striking improvement for Odisha. In contrast, the share of the poorest 20 percent rural population at all India level in term of MPCE to total consumption decreased marginally from 9.75 percent in 2009-10 to 9.60 percent in 2011-12 showing growing inequities on poverty distribution in the Country ( Table 7.10).

**Share of consumption of poorest quintile class of MPCE (MRP Method)**

State	Rural		Urban	
	2009-10	2011-12	2009-10	2011-12
Odisha	10.26	10.90	7.39	8.00
India	9.75	9.60	7.11	7.20

[Table 7.10]

Source: National Sample Survey Office (NSSO)

**Projected Poverty, 2015**

Odisha expects to achieve the poverty target well ahead of time as per a normative assessment by Directorate of Economics & Statistics, Odisha. MDG target stipulates to bring down the percentage of people below poverty line to half in 2015 of its 1990 level. On the basis of observed values of poverty in 1993-94, 2004-05 and 2011-12, the poverty head count ratio (PHCR) for 1990 and 2015 have been estimated by the rate of growth that is being calculated by using regression with log transformation method. Accordingly, the PHCR of Odisha by 2015 is projected at 28.86 as against an estimated PHCR of 66.74 in 1990. Odisha could succeed to achieve the MDG target even by 2011-12, much ahead of targeted year of 2015.



## 7.2 Human Development (HD)

Human development denotes improved quality of life. HD outcome is a function of economic growth, social policies and poverty reduction. The cause and effect relationships among economic growth, human capital formation and poverty reduction at macro level have been well established. Acquisition of quality & enhanced education, knowledge & skills; a long & healthy life and rising standard of living are the basis of measuring human development Indices. Human development index (HDI) is an average of health index, education index and income index. Health index is based on IMR and life expectancy at birth. Education index is a weighted average of adult literacy rates with 2/3rd weightage and combined gross enrolment ratio (GER) with 1/3rd weightage. Income index is based on some acceptable measure of per capita income. UNDP estimate on State wise HDI in India envisage a perceptible improvement in the quality of life of people over the decades. A comparative estimate of HDI for Odisha & India is placed below in Table 7.11.

**HDI of Odisha and India**

State/ Country	1981	1991	2001	2011
Odisha	0.267	0.345	0.404	0.442
India	0.302	0.381	0.472	0.504

[Table 7.11]

Source: UNDP

The improvements in HDI are not confined to Odisha & India only. The interstate disparities in the level of human development also have declining trend over the decades. Among the major States, Kerala has the highest improvement in HDI from 0.500 in 1981 to 0.625 in 2011 showing impressive quality of life in the State. Government of Odisha addresses the HD concerns and issues with the

following initiatives on the basis of SDG goals. These goals look for:

- Ending poverty and hunger
- Sustainable social infrastructure in health care, education and sanitation etc.
- Decent work and growth
- Reducing inequalities
- Protecting environment
- Sustained Industrial and urban infrastructure
- Peace, justice and strong institutions, and
- Promoting partnerships.

### 7.2.1 Education and Literacy Levels

Education is the major driver for nation building. By enhancing human capability, it ensures sustained employability, faster income, poverty reduction, higher economic growth and improved human development index of the State. This is the integrated component of social infrastructure that MDG and newly launched SDG put as focussed strategy. Odisha performed well on the literacy front. The literacy rate has increased by 4.6 times from 15.80 percent in 1951 to 72.90 percent in 2011, growing at an annual rate of 2.59 percent, as against 2.35 percent at the national level, from 18.33 percent in 1951 to 73.0 percent in 2011. By the end of June 2014 (as per estimated literacy rate of Odisha by 71st round NSS January-June 2014), the literacy rate of Odisha was 75.5 percent as against all India literacy rate of 75.4 percent. The literacy rate of Odisha has been increasing continuously. Whereas the male literacy has increased 2.99 times from 27.32 percent in 1951 to 81.6 percent in 2011, the female literacy has grown much faster (i.e., 14.16 times) from a low level of 4.52 percent in 1951 to 64.0 percent in 2011. By the end of June 2014, the male and female literacy rates of

Odisha increased to 83.2 and 67.8 percent as against national literacy rates of 83.2 and 67.1 percent respectively. Odisha achieved higher female literacy rate than that of All India. The gender gap in literacy in Odisha reduced to 15.4 percent in June 2014 as compared to 17.6 percent in 2011 census. This is a welcome trend. However the literacy rate of social classes, ST communities in specific, in Odisha remains an area of concern. Substantial social, regional and gender disparities in literacy exist in the State. Scheduled Tribe communities have low levels of literacy. The ST female literacy has increased from a very low level of 4.76 percent in 1981 to 41.20 percent in 2011, but is still significantly lower than SC and general female literacy. Though the ST male literacy increased from 23.27 percent in 1981 to 63.70 percent in 2011, there is still a big gap between that and the general male literacy. In comparison, SC communities have done better. SC male literacy has almost bridged the gap with the general male literacy. SC females are also catching up fast in this area. Though the rural female literacy has increased 2.8 times, i.e., from 21.90 percent in 1981 to 60.74 percent in 2011, there is still a substantial gap when compared to urban areas. The gap between rural and urban male literacy has however, been decreasing. Gross attendance ratio in Schools in Odisha is encouraging. The gross attendance

ratios in primary and secondary education level in Odisha were 104 and 100 per thousand students as compared to 100 and 87 at all India level respectively as on June 2014 (estimated result of 71st round NSS). The State Government makes larger provision of outlays for improving the infrastructure and delivery services of primary, secondary, higher and technical education in the State. Odisha commits to convert outlays to outcomes of this high priority sector.

### 7.2.2 Health Conditions

Health is conceived as a state of complete physical, mental, and social well-being and not merely the absence of diseases or infirmity. Sustained health conditions of people are intensely linked with level of income, poverty, food security, nutrition, health care infrastructure, education (female literacy in specific) & awareness, access to health care system, delivery of services, health sector financing etc. Health care not only enhances human capabilities to work but also improves the human development index. The demographic & health sector indicators for Odisha exhibit a mixed trend of success and concerns particularly in last decade. Some of the important demographic indicators of Odisha are given in Table 7.12.

**Some important demographic & health indicators of Odisha**

Sl. No.	Indicator	Rate
1	Birth Rate, 2014	19.4 per 1000 population
2	Death Rate, 2014	7.9 per 1000 population
3	Infant Mortality Rate, 2014	49 per 1000 live birth
4	Infant Mortality Rate, Urban), 2014	36 per 1000 live birth
5	Infant Mortality Rate –Rural, 2014	51 per 1000 live birth
6	Natural Growth Rate, 2014	11.5%
7	Total Fertility Rate, 2013	2.1 %
8	Maternal Mortality Ratio ( 2011-2013), 2013	2.22 per 1000 live births

Sl. No.	Indicator	Rate
9	DPT.3,2015-16	58.4%
10	Measles ,2015-16	78.8%
11	Full Immunization,2015-16	77.9%
12	BCG,2015-16	80.5%
13	Polio 3, 2015-16	77.8%
14	Couple Protection Rate (NHFS-3)	47%
15	Life Expectancy at Birth (2016-20 Projection)	Male 66.3 years, Female 69.6 years

[Table 7.12]

Source: Directorate of Health & Family Welfare, Odisha

Key health indicators such as Infant Mortality Rate (IMR) and Life Expectancy at Birth (LEB) are compared across major states in Tables 7.13 and 7.14 respectively. Recently, Odisha has made notable achievements in reducing IMR to 49 by the end of 2014 as per the SRS report published in 2016. The SRS survey reveals that the rate of decline in IMR in both rural and urban areas in Odisha was

better than the national averages and could be possible due to increase in institutional delivery and pre/post natal care as per recently published NFHS-4 Report, the IMR of Odisha reduced significantly from 49 in 2014 to 40 in 2015-16. The under-five mortality rate (U5MR) of the State also declined remarkably from 91 in 2005-06 (NFHS-3) to 49 in 2015-16 (NFHS-4).

#### Inter-State Comparisons of IMR, 1991–2014

State	Infant Mortality Rate									
	2002	2004	2005	2008	2009	2010	2011	2012	2013	2014
Andhra Pradesh	62	59	57	52	49	46	43	41	39	39
Assam	70	66	68	64	61	58	55	55	54	49
Bihar	61	61	61	56	52	48	44	43	42	42
Gujurat	60	53	54	50	48	44	41	38	36	35
Haryana	62	61	60	54	51	48	44	42	41	36
Karnatak	55	49	50	45	41	38	35	32	31	29
Kerala	10	12	14	12	12	13	12	12	12	12
Madhya Pradesh	85	79	76	70	67	62	59	56	54	52
Maharashtra	45	36	36	33	31	28	25	25	24	22
Odisha	87	77	75	69	65	61	57	53	51	49
Punjab	51	45	44	41	38	34	30	28	26	26
Rajasthan	78	67	68	63	59	55	52	49	47	46
Tamilnadu	44	41	37	31	28	24	22	21	21	20
Uttar Pradesh	80	72	73	67	63	61	57	53	50	48
West Bengal	49	40	38	35	33	31	32	32	31	28
India	63	58	58	53	50	47	44	42	40	39

[Table 7.13]

Source: SRS Bulletins – July 2016

## Inter-State Comparisons of Life Expectancy at Birth

State	2011-15*		2016-20		2021-25	
	Male	Female	Male	Female	Male	Female
Andhra Pradesh	66.9	70.9	68.4	72.1	69.4	73.3
Assam	63.6	64.8	65.6	66.8	67.1	68.8
Bihar	68.6	68.7	69.6	70.2	70.6	71.4
Gujarat	69.2	72.5	70.7	73.7	71.9	74.9
Harayana	68.9	71.3	69.9	72.5	70.9	73.7
Karnatak	68.0	72.3	69.0	73.5	70.0	74.5
Kerala	73.2	77.6	74.2	78.1	75.2	78.6
MadhyaPradesh	64.5	65.3	66.5	67.3	68.0	69.3
Maharastra	68.9	72.5	69.9	73.7	70.9	74.7
Odisha	64.3	67.3	66.3	69.6	67.8	71.6
Punjab	69.7	72.8	70.7	73.8	71.5	74.8
Rajstan	67.6	70.7	68.6	71.9	69.6	73.1
TamilNadu	68.6	71.8	69.6	73.0	70.6	T
UttarPradesh	66.0	66.9	67.5	69.2	68.7	71.2
WestBengal	69.2	72.1	70.2	73.3	70.0	74.3
India	67.3	69.6	68.8	71.1	69.8	72.3

[Table7.14]

\*Projected figures

Source:-Health &amp; Family Welfare Statistics, India-2013

Three factors explain a high level of IMR in Odisha: (i) poor availability of professional attendants at birth, (ii) high percentage of low birth weight babies, and (iii) lack of professional pre and post-natal care. Sixty-four percent infant deaths are attributed to neo-natal mortality. Premature deliveries result in 38.5 percent infant deaths. Pneumonia, respiratory infections in new born babies, tetanus, and diarrhoea result in 34.1 percent infant deaths. Anaemia, which is caused due to malnutrition suffered by both pregnant mothers and infants, explains 8.1 percent infant deaths. Other causes account for 19.3 percent infant deaths. There also appears to be a high correlation between IMR and Maternal Mortality Rate (MMR). Odisha has launched an IMR Mission with a view to expediting faster reduction in IMR and MMR. Verbal autopsy has been made mandatory for each infant and child death.

There are significant social, regional and gender disparities in accessing public health in Odisha. Interior regions in general and tribal districts in particular have poor physical and economic access to health services. Health conditions of women need substantial improvement. Institutional deliveries are lower in the case of tribal women. Post Natal Care (PNC) of mothers and infants need greater attention. There is, however, some improvement in recent years. Table 7.15 compares results of the reports of National Family Health Surveys -NFHS-I, NFHS-II and NFHS-III conducted by the International Institute for Population Sciences (IIPS) and shows that there has been remarkable improvement in all health indicators of the State from 1992-93 to 2005-06.

### Comparison of Health Indicators: National Family Health Surveys, Odisha

Sl. No.	Particulars	NFHS-I (1992-93)	NFHS-II (1998-99)	NFHS-III (2005-06)	NFHS-IV (2015-16)
1	Total Fertility Rate (TFR)	2.92	2.45	2.4	2.1
2	Current use of any method (%)	36.3	46.8	50.7	57.3
3	Female Sterilisation (%)	28.3	33.9	33.1	28.3
4	Male Sterilisation (%)	3.4	1.7	1.0	0.2
5	Unmet need for Spacing (%)	12.7	8.7	6.6	4.7
6	Institutional delivery (%)	14.1	22.9	35.6	85.4
7	Children fully immunized (%)	36.1	43.7	51.8	78.6
8	BCG (%)	63.3	84.7	83.6	94.1
9	DPT (%)	56.3	61.9	67.9	89.2
10	Polio (%)	56.7	68.4	65.1	82.8
11	Measles (%)	40.2	54.0	66.5	87.9

[Table7.15]

Source: NFHS- IV, 2015-16, Odisha

## 7.3 State interventions

### 7.3.1 Key intervention on Poverty reduction

The State Government make concerted efforts in implementing a series of poverty alleviation programmes to reduce the dimension, deprivation and inequities in poverty in Odisha.

These programmes also have direct bearing on social security, living standard, livelihood, human development and economic wellbeing of the poor, vulnerable and weaker sections of the society in the long run. The following are some of the major programmes being implemented by State Government of Odisha for poverty alleviation of people (Table7.16)

#### Key intervention on Poverty reduction in Odisha

Sl. No.	Programme implemented	Objectives	Target Group
1	SGSY, NRLM, MGNREGA,	Wage employment and gainful self-employment	Unemployed in unorganised poor labour force
2	Rupee One a kg of rice , TPDS, AAY, MDM, SNP, PMAY	Food security	Poor people
3	Biju Pucca Ghar	Provide houses	Economically weaker, houseless and lower income group
4	Madhubabu Pension Yojana	Social security	Poor people
5	Critical irrigation Projects	Improve socio economic condition	Rural poor
6	Aam Admi Bima Yojana (AABY)	Uplift economic wellbeing	Poor people
7	OTELP, WORLP, JEEBIKA, TRIPTI, OCTMP	Improve livelihood	tribal and other vulnerable communities

[Table 7.16]

Source : P.R. Dept., W&CD Dept., SC & ST Dept., Govt. of Odisha.

SDG makes its first goal to end poverty by 2030. Its goal number 1 targets to end extreme poverty for all people; reduce poverty of at

least 50 percent of all poor men, women & children of all ages; promote social protection system, equal rights & access to basic services,

ownerships & control of natural resources etc; reduce exposure & vulnerability of poor to natural risks; improve resource mobilization etc.

### 7.3.2 Key intervention on employment

Workforce and employability are the determining factors in growth performance, poverty reduction and human development. Although main workers in Odisha rose by 3.2 percent between 2001& 2011, its share to total workers fell sharply from 67.2 percent to 61 percent during the same period. The prime concern is in the increase in under-employment in the State due to the rise in the percentage of marginal workers to total workers from 32.80 percent in 2001 to 38.96 percent in 2011. Even 18 percent worked for less than three months. State Employment Mission and Chief Minister's Employment Generation Programme (CMEGP) facilitate generation of adequate employment opportunities, both wage employment and self-employment to tackle the problem of unemployment and under-employment in the State. The State aims to generate 10 lakh employment and self-employment opportunities during the 12th Five Year Plan. The employment situation is widely discussed in Chapter 2.

### 7.3.3 Key Interventions for Improving Literacy

The literacy rate increased notably and gender gap on literacy reduced noticeably in Odisha during between 2001& 2011. Sarva Shiksha Abhiyan (SSA) in all 30 districts take care for universal enrolment, retention and quality of education. National Programme for Education of Girls at Elementary Level (NPEGEL) and Kasturba Gandhi Balika Vidyalaya (KGBV) in educationally backward blocks of the State operate to reduce gender gap and greater participation of girls in education. Literacy rate in SC & ST communities remain lower than general population. Provision of residential hostels, bi-cycles, and scholarships, smart class

rooms in KBK districts, introduction of Tribal dialects, special B.Ed. College etc are some major initiatives being taken up for raising the literacy level of SC & ST communities and reducing their drop outs in the State.

### 7.3.4 Key intervention on improving health services

#### National Health Mission

National Health Mission (NHM) plays the pivotal role to improve access of people especially poor women & children to equitable, affordable, accountable and effective primary health care, both in rural and urban areas of the State. NHM not only integrates health concerns with determinants of health like sanitation & hygiene, nutrition & safe drinking water through a district plan for health. But also subsumes all existing programmes like Reproductive health, Child Health, Immunization, National Disease Control Programme, and Integrated Disease Surveillance Project. It aims at integration of all vertical Family Health Programmes and funds for optimal utilization of funds and infrastructure and strengthening delivery of primary health care, through the existing health care system. NHM implements a series of central and state sponsored health care programmes on reproductive health, maternal & child health care and adolescent reproductive and sexual health in the State. Some of the major NHM programmes include ASHA, First referral Units, Janani Surakshya yojana, Janani sishu surakshya karyakram, Rastriya Bal swasthya karyakram (RBSK), Rastriya Kishor Swasthya Karyakram (RKSK), New born care corner, nutrition rehabilitation centres etc. NHM also intervenes on human resource mobilization, mobility concern, community process and infrastructure development in health care sector on priority basis with PPP and NGO participation in the State. Institutional mechanisms in the form of rehabilitation centres, sub centres, adolescent

friendly health clinics, zilla swasthya samiti, rogi kalyan samiti, gaon kalyan samiti, new born care units etc have been set up and strengthened for better delivery and access of rural poor to health care services. The services are extended to urban areas of the State under National Health Mission. Under the Mission, the institutional mechanism have been strengthened with the establishment of urban health centre, City Program Management Unit, city health society, city health mission, mahila arogya samiti, ward kalyan samiti, mobile health unit etc . NHM also integrates all national disease control programme with State

machineries effectively. As on 2015-16, the major activities of NHM included:

- All 43500 ASHAs are trained
- 1.45 crore mothers are benefited in Janani Surakhsya Yojana between 2005 & 2016
- 420 (108 Ambulances) & 408 (102 Ambulances) are operational to provide free transport services for all types of medical emergency
- 44023 ASHAs are in place to promote health care delivery at community level.

#### **ASHA shows the way: Jamunamani makes village malaria free...**

ASHA under NHM stands for community process on health care at ground level. Asha worker is the only visible face who takes care of improved health status of the community assigned to her under the programme. Jamunamani (29 years), a ninth class pass out but trained, was just the other ASHA worker few years back since 2010 to look after the inaccessible, remote, undeveloped and malaria infested tribal village of Tenda -2 inside Kuldiha Reserved forest area of Sajanagad Gram panchayat of Nilgiri block of Balasore district of Odisha. She resolved not to allow a single malaria death case in the village. She started working hard, untiringly, day & night, reaching at door steps to deliver health care services to ailing poor with seer commitments, dedication, sincerity and training knowledge. She educated villagers and made them aware on hygienic condition, clean environment, removal of blind traditional beliefs on treatment etc. She won her mission and dream. In one year she made enabling efforts to cure 35 malaria infected villagers. Not a single malaria death occurred in the village. Her voice, message and extraordinary contribution to improve health care services received national and international recognition. Even Indian Prime Minister Sri Narendra Modi and Bill gate hailed her contribution as exemplary. Like Jamunamani, the 45000 strong force of ASHA workers in Odisha become the health care hope and leaders to improved human development at ground level in the State. ASHA bears the potential to transform poor villagers towards a better quality of life.

#### **7.3.5. Key intervention on nutrition, drinking water supply & sanitation**

The nutritional status of women in Odisha, as indicated in the NFHS-3 survey, shows that about 41.4 percent of women have a body mass index BMI below 18.5, indicating a high prevalence of nutritional deficiency. Prevalence Several initiatives have been taken to ensure food security and to address nutritional concerns. Supplementary Nutrition Programme (SNP) has been implemented for

of severe malnutrition among children, mothers, old and indigent people is a matter of serious concern in the State. Sixty-two percent women suffer from anaemia against the national average of 55.3 percent while sixty-five percent children remain anaemic and suffer from chronic energy deficiency.

children in 0-6 year age group and pregnant and lactating mothers under ICDS Programme. The aim is to supplement the daily nutrition intake by 300 calories and 8-10

grams of protein for children and 500 calories and 20-25 grams of protein for expectant and nursing women. Anganwadi centres are being strengthened all over the State. Anganwadi buildings are being constructed wherever these do not exist. A special nutrition operational plan has been implemented with support from DFID. This plan is based on five principles: (i) targeting the most vulnerable, (ii) flexibility, (iii) evidence and outcome based participatory planning, (iv) strong convergence and (v) strong monitoring and results based framework.

Sustained access to safe drinking water and sanitation is critical for healthy living and has been included under the minimum needs programme. Odisha has done rather well in terms of coverage of rural and urban habitations with safe sources of drinking water including piped water supply, tube wells and shallow wells. The percentage coverage of households in the State using tap water, tube well water and well water were 13.8 percent, 61.5 percent and 19.5 percent respectively in 2011 as against 8.7 percent, 55.5 percent and 28.6 percent in 2001. In rural areas, 7.5 percent, 66.9 percent and 19.8 percent households use tap water, tube well water and well water respectively in 2011. Similarly in urban areas, 48 percent, 31.7 percent and 18.4 percent households are covered with tap water, tube well and well facilities respectively in 2011. Khurda, Cuttack, Sambalpur, Ganjam and Gajapati are leading districts in Odisha, where more than 20 percent households are using tap water as a major source of safe drinking water in 2011 whereas coverage in Bhadrak, Boudh, Kandhamal and Kalahandi districts remain less than five percent. However, about 22 percent households have safe drinking water facilities within their premises. In many pockets, water quality is a serious issue. In some areas such as Nuapada,

the content of fluoride in the ground water is higher than the recommended safe level. Frequent breakdown in tube wells and rural piped water supply units is another concern.

Sanitation status of people across the State is generally poor. As per the 2011 Census estimates, only 22 percent of total households in Odisha had access to basic sanitation facilities like toilets within the premises. Out of the remaining 78 percent households, 1.4 percent households use public latrines while the rest defecate in the open. As a result, the incidence of diarrhoea in interior Odisha is generally high and it is a major source of infant and other deaths. Several international and civil society organisations including DFID, UNICEF, CARE and local NGOs have joined hands with the Government to assist people in modifying their behaviour, improving their sanitation and making them aware of the value of sanitation and safe drinking water. Steps have been taken to reduce open defecation in the state through popularising the use of toilets and providing incentives to cent percent use of toilets.

In order to address rural sanitation needs through community empowerment, the scheme, "Total Sanitation Campaign (TSC)" has been implemented in all 30 districts in Odisha under Nirmal Bharat Abhijan. The entire operation has been looked after by the "Odisha State Water and Sanitation Mission" and "District Water and Sanitation Mission". The programme is jointly funded by Government of India and the State Government.

#### **7.4 Approach to Balanced Development**

Regional disparity remains a national phenomenon over time. The prime objective of five year plans and Planning Commission,



now Niti Aayog, is to remove the regional imbalances with appropriate development streams. The difference in the natural and physical resource bases and endowments, socio-cultural practices etc. among the different regions or districts of the State lead to regional imbalances with varying level of economic development in. The State Government of Odisha is keen to address the issues and challenges of regional disparity by implementing a series of Development programmes in the State.

#### **7.4.1 Biju KBK Plan**

The Biju KBK Plan, a State Flagship Programme under State Plan, was launched in 2006-07 to create opportunities for socio-economic-human capital development of 08 KBK districts and improve quality of life of people of the region, disadvantaged group in particular. After the discontinuance of Special Central Assistance (SCA) for implementation of Special Plan for the KBK Districts by Government of India from the year 2015-16, the Biju KBK plan gathered strength with the enhanced outlay of Rs 250 crore out of State Plan during 2015-16. The outlay was meant for district sector programme (Rs 120 crore) and state sector programme (Rs 130 crore). District Sector programme relate to Bijli, Sadak Pani and Livelihood initiatives, i.e., village electrification including street lighting, construction of concrete roads within the village or any other form of connectivity, creation of irrigation/ drinking water sources and support for sustainable income and employment generating activities. While State sector programme relate to implementation of ongoing projects/ programmes of delinked Special Plan for the KBK Districts in the field of irrigation, electrification, welfare of ST&SC and connectivity. 21333 projects have been completed in Bijli, Sadak, Pani and

others out of 26311 approved projects by the end of October 2016.

#### **7.4.2 Biju Kandhamal ‘O’ Gajapati Yojana (BKGY)**

BKGY, launched in 2009-10 under State Plan (State’s own resources) with an annual allocation of `Rs.28.50 crore, is exclusively implemented in Kandhamal and Gajapati Districts. The objectives and thrust area of BKGY are almost similar to that of Biju KBK plan. Funds under the BKGY are used as additionality with other programmes and other sources of funds under “Convergence Mode” to fill the gap with a view to enhancing development effectiveness of various flagship programmes. The BKGY focuses on all components of Bijli Sadak, Pani & Livelihood Initiatives as embodied in Biju KBK Plan but with the added component of Social Safety Net programmes (i.e. support for programmes that address the needs of vulnerable groups of people). 2780 projects have been completed in Bijli, Sadak, Pani and others out of 3857 approved projects by end of October 2016.

#### **7.4.3 Western Odisha Development Council (WODC)**

WODC is the strategic institutional mechanism that focus on reducing regional disparities alongwith acceleration of development activities in ten western districts of the State such as Bargarh, Bolangir, Boudh, Deogarh, Jharsuguda, Kalahandi, Nuapada, Sambalpur, Sonapur, Sundargarh and Athmallik SubDivision of Angul district. The Council is mandated to develop appropriate long-term and short-term development plans and programmes for these districts. With an annual fund allocation of Rs.100 crore and a special grant of Rs.50 crore since 2008-09, the council is taking up different projects like

road & communication, agricultural development, minor irrigation, construction of check dams, installation of LIPs, water supply schemes, sinking of tube wells, infrastructure development grants to schools & colleges, health services, electrification of villages. 22791 projects have been completed out of 28839 approved projects by end of October 2016.

#### **7.4.4 Gopabandhu Grameen Yojana (GGY)**

GGY, an infrastructure based Yojana launched in 2006-07 by Government of Odisha, focuses on developing rural infrastructure of Bijli, Sadak and Pani in each revenue village of the targeted 10 districts of the State which were not covered under BRGF till 2014-15. Some of the specific projects which could be taken under this Yojana would be in the nature of construction of concrete roads within the village, construction of black topped / concrete roads to connect a village with the nearest PMGSY or ODR road, installation of street lights within the village for which the maintenance is to be borne by the concerned Gram Panchayat (GP), provision of drinking water supply and creation of irrigation sources. These districts were Angul, Balasore, Bhadrak, Cuttack, Jajpur, Jagatsinghpur, Kendrapara, Khordha, Nayagarh, and Puri. However, with the delinking of BRGF by Government of India for Odisha in 2015-16, the state Government have extended this Yojana to all 30 districts. 16902 projects completed out of target 37343 by end of October 2016.

#### **7.4.5 Special Central Assistance for TSP Area**

Ministry of Tribal Affairs (MOTA), Government of India provides Special Central

Assistance (SCA) for implementation of programmes under ITDA, MADA, and DTDP & MPC for development of Scheduled Tribes pockets in Odisha. The SCA is provided for implementing income generating schemes; infrastructure development programmes incidental to income generation; creation/acquisition of capital assets; integrated livestock development and community benefit, family benefit & individual benefit oriented schemes under these projects in TSP and outside TSP areas of the State where tribal population are dominating. The State has 22 ITDAs in 119 blocks in TSP areas; 45 MADA pockets in outside TSP areas; 14 cluster pockets outside TSP areas in 13 Blocks of 10 districts; 17 micro projects clusters for 12 PTGs and dispersed tribal population throughout the State living in areas outside ITDA, MADA, Cluster and Micro project areas under DTDP. Between 2007-08 and 2015-16, 10253 number of works implemented creating 7.45 lakh beneficiaries at an expenditure of Rs.1041.70 crore under SCA to TSP. In addition, MOTA also provides grant-in-aid as SCA to the State under 1st provision of Article 275 (1) of the constitution for creation of infrastructure in TSP area and for setting up of Ekalavya Model Residential Schools. Between 2007-08 and 2015-16, 10983 number of works have been implemented at an expenditure of Rs.860.64 crore under this scheme. During 2015-16, 952 number of works have been implemented for 72,661 beneficiaries at an expenditure of Rs.134.85 crore under SCA to TSP. While under Article 275(1) scheme, 1168 number of works have been taken up at a cost of Rs.140.00 crore during 2015-16.

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# 8

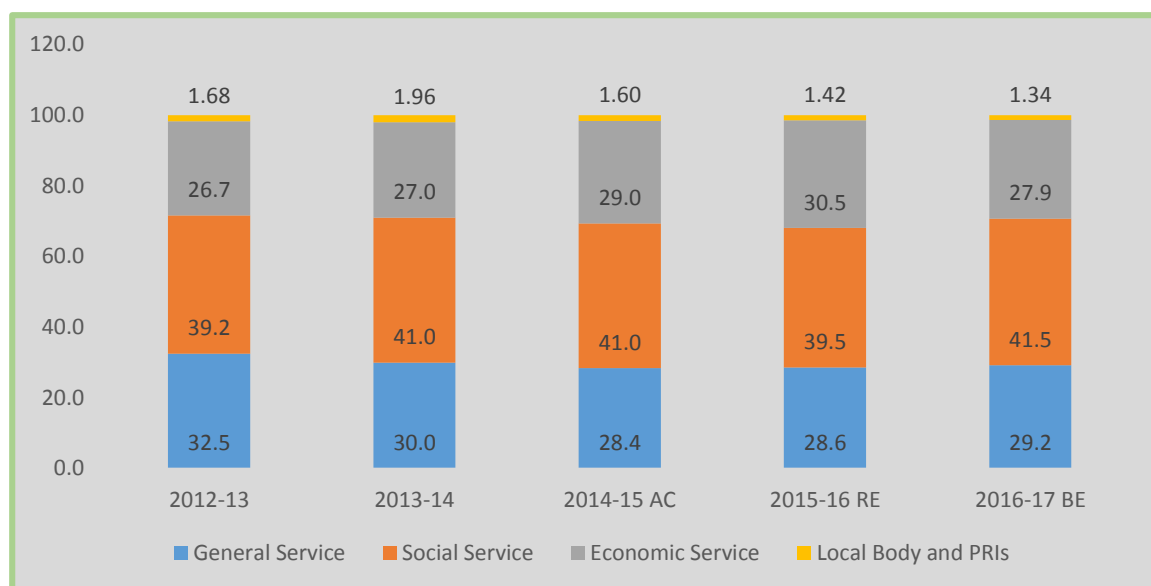
## Social Sector

*Social sector development in Odisha continues to strike well in 2015-16. The share of plan expenditure in social & economic services rises over the years. Although the literacy rate depicts an upward trend but the gender gap in literacy shows an down ward trend which is a positive sign. Dropout rate at primary education reduce sharply to 1.6 percent. Number of teachers & schools at elementary & secondary level increased. Pupil -teacher ratio remain better than national ratio. School infrastructure in rural areas improved remarkably. Health sector development in the State received mixed response in its three crucial development indicators like outcome (IMR), process (institutional delivery) and input (infrastructure & public expenditure etc). While IMR & institutional delivery improved, Government is keen to promote health infrastructure & expenditure with strong institutional mechanisms like NHM etc. Access to safe drinking water is an area of concern. Welfare of women, child, SC, ST communities' accord high priority in State's development programme. Odisha Livelihood Mission, Mission Sakti, OTELP etc are few of many social security & welfare oriented measures by State Government that not only uplift the wellbeing of these communities but also instill sustained livelihood confidence among weaker sections, both men & women, with financial & social inclusion.*

This sector inter alia includes the Status of education, health, sanitation, welfare programmes for women, child, SC & STs subsectors. It builds up strong edifice for stimulating economy in terms of rising income & employment opportunities, productivity, technology advancement which improves the quality of life in the State. The Government of

Odisha is keen to accelerate the social sector services in the current decade. The rising percentage share of social and economic services together overtake the share of general expenditure over the last 5 years. The consistent improvement in percentage share of Revenue Expenditure in the prioritized sector in the State is well noticed in Figure 8.1.

**Percentage Share of Revenue Expenditure, Odisha, 2011-12 to 2015-16**



[Figure 8.1]

Source: DES, Odisha

## 8.1 Education

Education is the mirror which reflects the social and economic status of a State. Education strengthens the fabric of all round development of economic, social, technical, environmental and scientific areas in the State. It is a distinctive investment that ensures better access to a progressive future generation. It creates environment for improvement of the quality of life. Successful education policy leads to effective population policy, for women to be specific. The launching of Right of Children to Free and Compulsory Education Act, 2009 by Central Government, Odisha Right of Children to Free and Compulsory Education Rules, 2010, and Right

to Education cell in the State with the support from UNICEF, retain education as a priority sector in Odisha.

### Literacy

Literacy and development are inter-related. Literacy improves self-esteem, enhances social status & decision making power and confidence level of individual in the society. It impacts human development outcomes both as input and output. Odisha attained the literacy rate of 72.87 percent at par with the national average of 72.99 percent in 2011 Census registering a decadal increase of 9.8 percent between 2001 and 2011. The State's male literacy rate of 81.59 percent was marginally higher and female literacy rate of 64 percent

was also at par with national averages by 2011. The female literacy rate in Odisha was highly impressive which increased sharply by 13.5 percentage points as against 6.2 percentage points rise for male literacy rate during the decade. It has resulted remarkable reduction of the gender gap in literacy rate from 24.84 percent to 17.58 percent in the decade.

A comparative picture of literacy rate of Odisha and India is presented in Table 8.1. But the dimension and gender gap on literacy front among social category remains an area of concern for the State. The SC and ST communities had relatively lower literacy rate of 69.02 and 52.24 percent in 2011. The gender gap among SC and ST remain high with 20.45 and 22.50 percent in 2011 Census.

### Growth of Literacy in Odisha vis-à-vis India

Year	Odisha (literacy in %)				India (literacy in %)			
	Male	Female	All	Decadal growth	Male	Female	All	Decadal growth
1951	27.32	4.52	15.80	-	27.16	8.86	18.33	-
1961	34.68	8.65	21.66	5.86	40.4	15.35	28.3	9.33
1971	38.29	13.92	26.18	4.52	45.96	21.97	34.45	6.15
1981	46.39	20.60	33.62	7.44	56.38	29.76	43.57	9.12
1991	63.09	34.68	49.09	15.47	64.13	39.29	52.21	8.64
2001	75.35	50.51	63.08	13.99	75.3	53.7	64.8	13.2
2011	81.59	64.01	72.87	9.79	80.89	64.64	72.99	9.24

[Table 8.1]

Source: Census of India 1951-2011

Regional disparity in literacy rate exists among the districts. Nabarangpur district is inflicted with very low literacy rate of 46.43 percent while Khordha was highly literate with 86.88 percent in 2011. The coastal district of Jagatsinghpur had the highest male literacy rate of 92.38 percent while Khordha had the highest female literacy rate of 81.61 percent by 2011. The 71st round of NSS (January-Jun, 2014) put Odisha's overall literacy rate at 75.5 percent with male and female literacy rate of 83.2 & 67.8 of percent respectively overtaking the India's overall literacy rate of 75.4 percent. The State Government has accorded high priority to

reduction of gender gap to literacy rate from 24.84 to 17.58 percent in the decade bridge the literacy gaps among major social classes.

Growth of the SC and ST literacy rates in the State has been traced in Table 8.2. The SC literacy rate has substantially improved between 1961 and 2011 and the gap between SC and overall literacy rates has been declining at a faster rate than that between ST and total literacy rates. The difference between literacy rates of SC and ST has increased from about 4 percent in 1961 to around 17 percent in 2011. Figure 8.2 compares literacy rates in Odisha by social groups from 1961 to 2011.

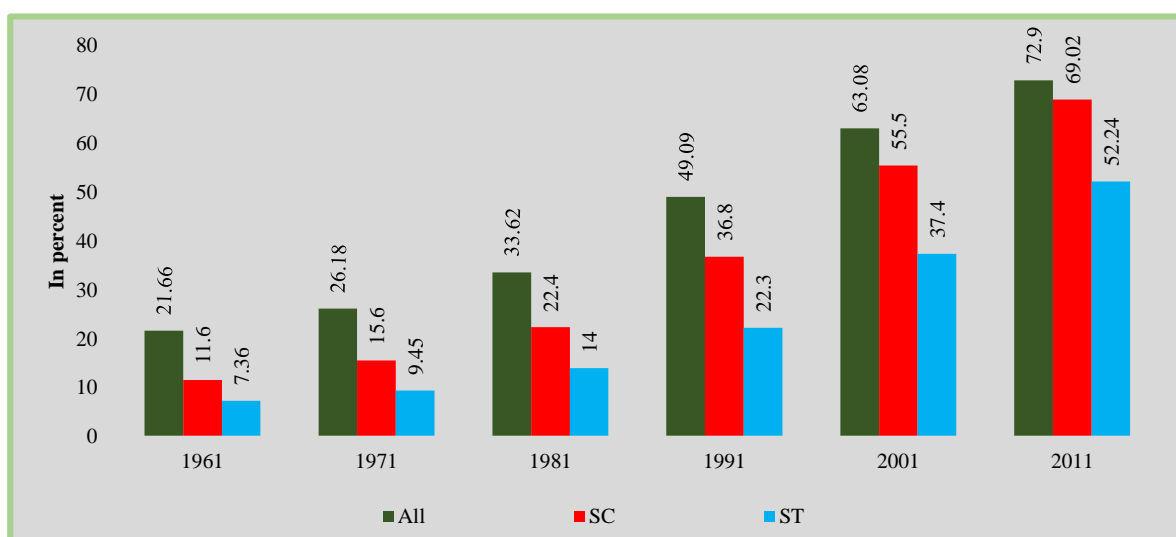
### Literacy among ST and SC Population in Odisha (1961-2011)

Year	ST				SC			
	All	Male	Female	Gender Gap in Literacy (%)	All	Male	Female	Gender Gap in Literacy (%)
1961	7.36	13.00	1.77	11.27	11.60	19.80	3.44	16.38
1971	9.45	16.40	2.28	13.80	15.60	26.00	5.17	20.81
1981	14.00	23.30	4.76	18.51	22.40	35.30	9.40	25.86
1991	22.30	34.40	10.21	24.23	36.80	52.40	20.74	31.67
2001	37.37	51.48	23.37	28.11	55.53	70.50	40.33	30.14
2011	52.24	63.70	41.20	22.50	69.02	79.21	58.76	20.45

[Table 8.2]

Source: Census data 1961-2011

### Literacy Rate in Odisha by Social Groups (1961-2011 Census)



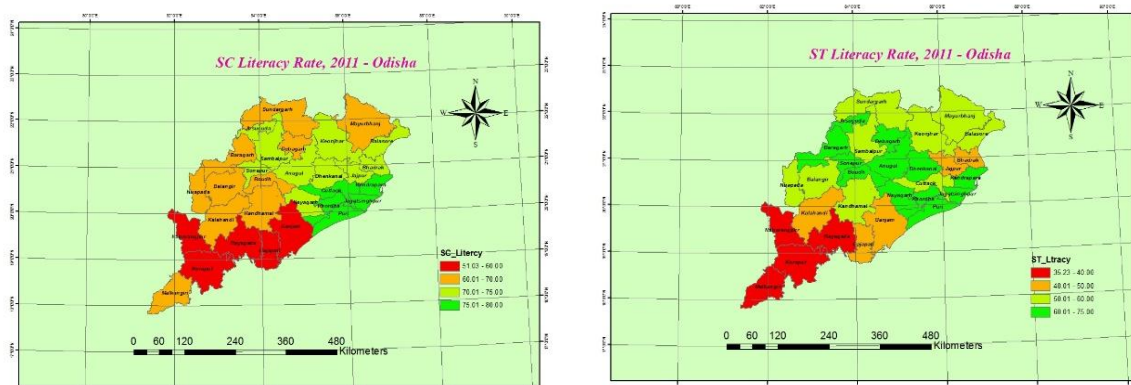
[Figure 8.2]

Sources: Census data 1961-2011

There are wide inter-district differences in the ST literacy rates. Performance of the northern districts has been better than that of the southern districts as per census 2011 (Annexure 8.5). As against 68.72 percent literacy rate of ST in Jharsuguda, the ST literacy rate for Malkangiri district was only 35.23 percent in 2011. It may be seen that the literacy rate of ST women is very low at 41.20 percent in 2011, compared to 58.76 percent of SC women and 64.01 percent of all women in

Odisha. Though literacy rates of both ST and SC women have increased over the years, the increase is less than that for their male counterparts. As a result, the gap between the male and female literacy rates of STs increased from 11.27 percent in 1961 to 22.50 percent in 2011. In the case of SCs, the gap kept on increasing from 16.38 percent in 1961 to 30.14 percent in 1991, but declined to 20.45 in 2011. Map 8.1 indicates the patterns of literacy rate of ST and SC in Odisha.

### District wise Literacy Rate of ST & SC in Odisha, 2011



[Map 8.1]

Source: Census, 2011

#### 8.1.1 Elementary Education

Elementary Education, that includes both Primary and Upper Primary Education, performed well during 2015-16. The pupil-teacher ratio reduced to 1:24 during the period. The dropout rates of SC, ST and Girls students in upper Primary Education fell remarkably from 8.42, 9.72 & 8.24 percent respectively in 2009-10 to 4.80, 8.82 & 3.52 in 2015-16. Gross Enrolment Ratio (GER) in the

State level was 96.20 during 2015-16. The GER to Primary and Upper Primary level are 91.62 and 107.07 respectively. Gender Parity Index is almost equal during the same period i.e. 0.94. In spite of all out efforts of Government for strengthening infrastructure facilities in elementary education still a long way to achieve the target. Lack of basic facilities at Government elementary school (53,252 schools) for 2015-16 is presented in Table 8.3.

#### Basic facilities available in Government elementary schools in Odisha (2015-16)

Sl. No.	Amenity	Number	Percentage to Total Schools
1	Common Toilet	3,873	7.27
2	Gas Toilet	946	1.78
3	Drinking Water facilities	289	0.54
4	Electricity	42,184	79.22
5	Own building	376	0.71
6	Play ground	42,060	78.98
7	RAMP	13,996	26.28
8	Boundary wall	17,763	33.36

[Table 8.3]

Source: OPEPA

### Scholarship for Elementary students

To encourage, inspire and for retention, provision of primary and upper primary merit scholarship, primary and upper primary merit – cum – poverty scholarship are there for the meritorious students of Class – III and Class – V. During 2015-16, 10,000 students were getting scholarship for four categories.

Pathani Samanta Mathematics Talent scholarships have been introduced by the Government to the regular students beginning from upper primary to +2 level. During 2015-16, 3,764 numbers of Class – VI and 2,427 numbers of Class – IX students have been awarded.

### Sarva Sikshya Abhiyan (SSA)

To achieve the constitutional goal of universalization of elementary education, SSA is implemented in a mission mode in the state in 2001-02. Universal and compulsory education for all children as a right is a cherished dream of Government. The cost of the programme is shared by the Centre and State in the ratio 65: 35. The programme supports infrastructure development, viz.

construction of new school buildings and class rooms, toilets, drinking water facility, free supply of school uniforms for girls and supply of text books. Kasturba Gandhi Balika Vidyalaya (KGBV) is an integrate part of SSA, provides a dynamic framework to accelerate girls education programme. It is implemented in those Educationally Backward Blocks (EBB) where level of rural female literacy rate is less than national average of 46.13 percent and gender gap is above the national average of 21.67 percent. And also districts having at least 5 percent SC/ST population where SC/ST female literacy rate is below 10 percent are included in the programme. KGBV is a residential school programme at elementary level. The targeted beneficiaries under KGBV are dropouts of Upper Primary School girls belonging to SC/ST/OBC/Minority/BPL category. During 2015-16, the total numbers of 182 KGBVs in 23 districts have been made operational benefiting 18,200 girls. Odisha made self-defense training of girls to develop self confidence among the girls at Upper Primary Level.

### Financial Position of SSA and NPEGEL

(Rupees in Crore)

Year	Total Receipt		Expenditure	
	SSA	KGBV	SSA	KGBV
2005-06	392	27.91	343.26	28.39
2006-07	561.63	45.9	594.21	43.33
2007-08	903.01	34.48	739.57	30.01
2008-09	701.86	15.14	768.26	21.08
2009-10	1,013.53	1,522.10	1,035.62	23.95
2010-11	1,255.05	-	885.52	21.73
2011-12	1,623.45	-	1,018.77	13.84
2012-13	1,748.08	0	1,219.41	3.01
2013-14	1,347.34	0	1,038.14	(Unaudited) 45.76
2014-15	1,379.55	-	1,323.88	53.28
2015-16	1,416.87	0	1,289.89	58.94

[Table 8.4]

Source: Director, OPEPA and Director, Elementary Education, Odisha



## Primary Education

Universalisation of primary education addresses two major target groups, the out of school children during the primary school going age ( 6 to 14 years) and the children who were forced to drop out even before completion of primary grade classes due to social and economic impediments. Odisha made notable strides in primary and upper primary education by free and compulsory education, especially in rural and backward

areas in the age group of 6-14. During 2015-16, there were 36,760 functional primary schools (Government 34,690, aided 309, private-unaided 809 other unrecognized 934 and 2 central Government schools and others 16) with 1.33 lakh teachers and 41.11 lakh students in the State as against 36,550 primary schools with 1.22 lakh teachers and 42.24 lakh students during the previous year. The growth in the number of schools and teachers from 2005-06 to 2015-16 has been shown in Table 8.5 and Figure 8.3.

### Number of Primary Schools, Enrolment, Teachers and Gross/Net Enrolment Ratio in Odisha

Year	Number of Primary schools	No. of Teachers	Primary school / 100 sq. km.	Teacher Pupil Ratio	Enrolment ('000)	Gross Enrolment Ratio (%) (6-11 years)	Net Enrolment Ratio (%) (6-11 years)
2005-06	45,890	1,15,351	30	1:40	4613	92.25	78.58
2006-07	46,722	1,14,105	30	1:39	4485	90.98	82.06
2007-08	35,124	1,23,765	31	1:37	4513	96.66	84.23
2008-09	35,798	1,25,434	32	1:37	4587	97.48	92.72
2009-10	35,929	1,37,833	34	1:33	4493	98.04	92.88
2010-11	36,642	1,36,407	35	1:32	4489	99.60	91.83
2011-12	37,012	1,33,262	35	1:30	4433	99.69	93.27
2012-13	37,056	1,34,578	35	1:28	4341	99.96	93.61
2013-14	36,399	1,21,193	23	1:35	4278	99.20	93.85
2014-15	36,550	1,22,214	24	1:26	4224	92.74	91.01
2015-16	36,760	1,33,541	24	1:25	41.11	91.62	90.23

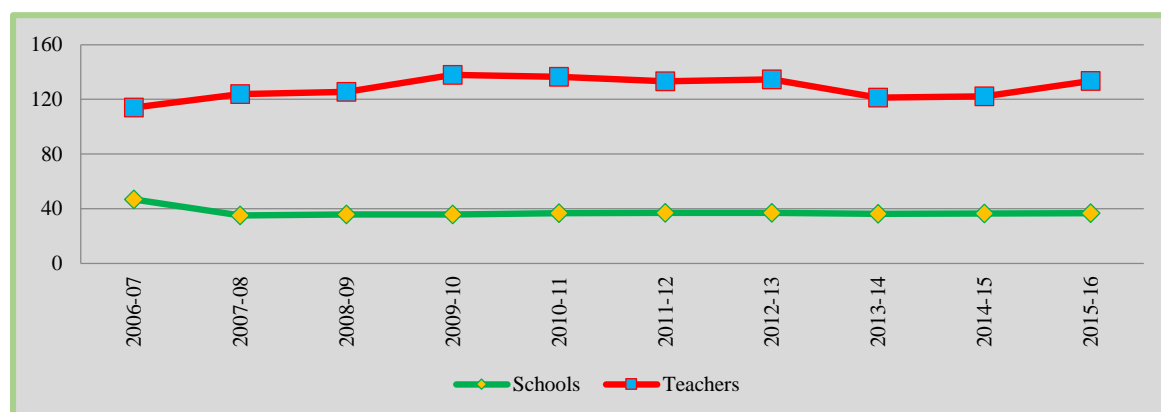
[Table 8.5]

Source: OPEPA

The number of primary school teachers in Odisha increased from 1.22 lakh in 2014-15 to 1.33 lakh in 2015-16. The State has an average teacher pupil ratio of 1:24 in 2015-16 that is better than the national norm 1:40. With a view to improving of the teaching capabilities and assuring reasonable career growth, the Government of Odisha have introduced a career advancement policy. During 2015-16, around 5,040 newly recruited teachers have been trained in 30 days teachers training module. The increasing investment by

State Government on expanding elementary school infrastructure, reducing gender and social category gaps, enhancing teacher availability, sustained academic support, Mid-Day-Meal (MDM) programme, awareness generation, increased community participation, curricular reforms and a rights-based approach etc have contributed substantially for reduction in drop-out rates and improved retention rates in primary, upper primary and elementary education in Odisha.

## Trend of Growth of Primary school teachers and schools, Odisha



[Figure 8.3]

Source: OPEPA

## Status of Elementary Education in Odisha

Indicator	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Enrolment	(in Lakh nos.)					
All	65.41	65.07	64.22	63.88	63.86	63.28
S.C	12.87	12.43	12.43	12.27	12.21	11.93
S.T	17.58	18.38	18.8	19.08	19.30	19.08
Girls	31.99	31.66	31.13	30.95	30.89	30.58
Out of School children (in nos.)	72,048	30,591	19,591	6,001	5,152	9368
Dropout Rate						
Primary	2.6	0.43	0.4	1.97	1.63	2.82
Upper Primary	7.23	3.07	2.36	2.40	4.21	3.87
Gross Enrolment Ratio (GER )	101.32	101.31	100.56	102.36	97.67	97.67
Net Enrolment Ratio (NER )	90.78	93.27	92.65	93.09	88.42	88.42
Pupil Teacher Ratio	1:30	1:28	1:27	1:26	1:25	1:24

[Table 8.6]

Source: OPEPA

Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) are the two most important indicators of enrolment. GER determines the percentage of student enrolment and Net Enrolment is the ratio of the number of children who are enrolled in school. It is observed from Table 8.3 that the GER at primary education has increased marginally from 92.25 percent in 2005-06 to 99.20 percent in 2013-14 and then decreased

to 91.62 percent in 2015-16, while NER has increased from 78.58 percent to 93.85 percent from 2005-06 to 2013-14 and decreased to 90.23 percent in 2015-16. During 2015-16 the highest GER 107.07 and the highest NER (81.79) was recorded in Mayurbhanj district.

It is observed from Table 8.7 that the dropout rates have significantly fallen over the years. At the primary level, the dropout rate declined

from 7.39 percent in 2007-08 to 2.82 percent in 2015-16. The dropout rates of boys fell from 7.76 percent to 2.87 percent and girls from 7.83 percent to 2.92 percent for the corresponding period. The dropout rate during 2015-16 is slightly higher than that of previous year. The dropout rate during 2015-16 in Primary level for, SC, ST and girls is 3.30, 7.07 and 2.92 respectively. The detailed picture is given in Table 8.7 and Figure 8.4. Though the dropout rates at the primary level have

been reduced, such rates still remain high among ST during 2015-16. Dropout rate for Primary level is 2.82 for Odisha. It is the highest (10.50 percent) in Rayagada district and recorded nil in Cuttack, Puri, Khordha and Balasore districts. Infrastructure facilities in schools have a direct bearing on enrolment and dropout rates. The State Government is making concerted efforts with its available resources to reduce the drop-out rate.

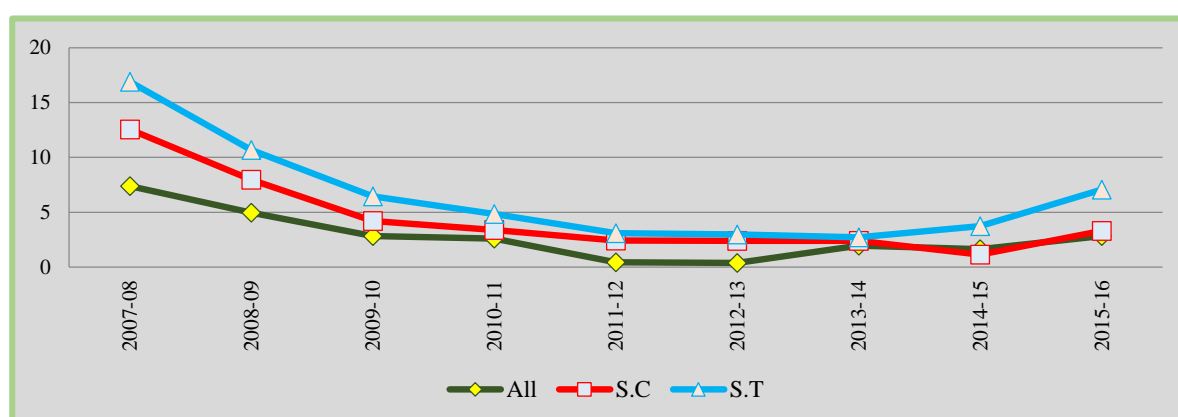
### Dropout Rates in Primary Schools in Odisha

Year	All Categories			Scheduled Castes			Scheduled Tribes		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
2007-08	7.76	7.83	7.39	11.93	13.16	12.54	14.03	19.75	16.89
2008-09	5	4.89	4.95	7.7	8.22	7.96	9.05	12.34	10.69
2009-10	2.57	3.1	2.83	4.06	4.36	4.21	6.27	6.66	6.46
2010-11	2.35	2.86	2.60	3.08	3.89	3.38	4.12	5.35	4.85
2011-12	0.25	0.62	0.43	2.15	2.68	2.41	3.51	2.80	3.10
2012-13	0.73	0.22	0.37	2.36	2.42	2.39	2.76	2.85	2.97
2013-14	2.08	2.05	1.97	2.41	2.38	2.39	2.68	2.77	2.71
2014-15	1.58	1.78	1.63	0.93	1.34	1.13	3.57	3.93	3.75
2015-16	2.87	2.92	2.82	3.66	2.77	3.30	6.88	7.26	7.07

[Table 8.7]

Sources: OPEPA

### Dropout Rates in Primary School, Odisha, 2007-08 to 2015-16



[Figure 8.4]

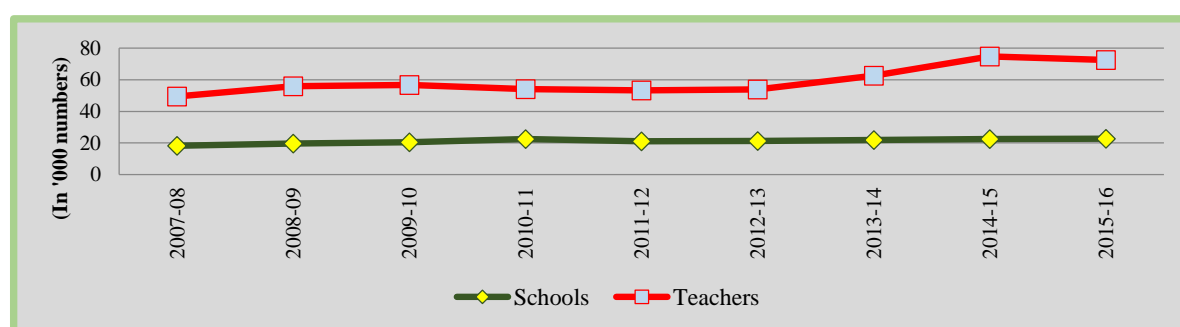
Source: OPEPA

### 8.1.2 Upper Primary Education

Upper Primary Education is equally important like primary education to boost the quality of education and minimize the dropout rates. In 1947-48 the State had only 286 Upper Primary Schools with 1,483 teachers with 32,000 enrolments. Due to continuous efforts of the Government, the number of Upper Primary Schools increased to 22,795 with 72.47

thousands teachers and 22.17 lakh enrolment by the end of 2015-16. Figure 8.5 traces the trend in the number of schools and teachers at Upper Primary Schools in Odisha, while more details are given in Table 8.8. During 2015-16, Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) at Upper Primary levels stood at 107.07 and 81.79 percent respectively for the State.

**Growth of Upper Primary School Teachers and Schools, Odisha**



[Figure 8.5]

Source: OPEPA

### Position of Upper Primary School in Odisha

Year	No. of schools	No. of teachers	UP school /100 sq. km.	Teacher-Pupil Ratio	Enrolment (000')	Gross Enrolment Ratio (GER)	Net Enrolment Ratio (NER)
2007-08	18,260	49,413	11	1:40	1,997	104.28	76.62
2008-09	19,619	55,832	13	1:38	2,128	99.06	85.52
2009-10	20,426	56,758	14	1:37	2,128	104.11	85.68
2010-11	22,597	53,994	16	1.39	2,090	105.45	83.84
2011-12	21,117	53,264	16	1:25	2,087	104.93	90.84
2012-13	21,289	53,791	16	1:24	2,081	101.83	91.57
2013-14	21,945	62,570	1	1:34	2,110	104.44	91.38
2014-15	22,497	74,647	15	1:25	2,163	108.99	82.49
2015-16	22,795	72,472	15	1:23	2,217	107.07	81.79

[Table 8.8]

Source: OPEPA

The overall dropout rate in Upper Primary Schools of the State declined substantially from 13.27 percent in 2007-08 to 3.87 percent in 2015-16 which is lower than that in the

previous year. The dropout rates for SC, ST and girl students were (4.80, 8.82 and 3.52) relatively higher (Table 8.9).

### Dropout Rates in Upper Primary Schools in Odisha

Year	All Categories			Scheduled Caste			Scheduled Tribe		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
2007-08	13.05	13.49	13.27	17.55	20.05	18.8	22.13	25.53	23.83
2008-09	8.42	8.43	8.42	11.32	12.53	11.92	14.28	15.96	15.12
2009-10	8.13	8.24	8.19	8.64	9.61	8.42	8.47	6.82	9.72
2010-11	7.15	7.31	7.23	6.86	6.05	6.21	7.18	6.96	7.85
2011-12	3.85	2.23	3.07	2.20	1.23	2.74	3.20	6.31	4.70
2012-13	2.45	2.38	2.36	2.44	2.39	2.41	3.95	3.29	3.38
2013-14	2.71	2.08	2.40	2.84	2.24	2.58	3.48	3.89	3.63
2014-15	4.31	4.25	4.21	4.39	4.50	4.45	4.14	5.91	5.03
2015-16	4.20	3.52	3.87	5.46	4.11	4.80	9.38	8.27	8.82

[Table 8.9]

Source: OPEPA

### Major Initiatives for Promotion of Elementary Education, 2015-16

As per NeighborhoodMapping-2015, out of 90,731 habitations total 87,646 habitations are covered with Primary School facilities and 88,652 with Upper Primary facilities.

- The State Government has relaxed the norm for opening of new primary schools to improve access & 100 percent enrolment in elementary education. 9,943 number of new primary schools and 11,008 New Upper Primary schools have been opened to provide education to the children of inaccessible areas from 2001 to 2015-16 under SSA.
- Transport/Escort facilities are provided to 1000 children of sparsely populated and scattered habitation.
- Construction of 169 KGBV building has been completed and 13 KGBV building are under progress.
- 65.39 lakh children - in 6-14 age group out of which 65.38 lakh are studying in 68,538 schools and 0.05 lakh children are reported as out of schools are in schools out of which 18.87 lakhs are SC & 30.16 lakh are ST and 48.33 lakh are girl students.
- Free text books have been supplied to all students of all Govt. and aided schools.
- Uniform provided to all girl students and SC / ST, BPL boys in Govt. Schools.
- A comprehensive monitoring mechanism "Samikshya" has been adopted to track performance of elementary education throughout the State.
- 85,500 teachers are engaged and working under SSA to maintain the desirable Pupil Teacher Ratio in Odisha. 9,121 new Sikhya Sahayaks have been appointed during 2015-16 under SSA. 5,040 no. of newly recruited teachers are trained in 30 days teachers training module.
- 1.02 lakh children with special needs are enrolled in Schools.
- 329 Medical assessment camps have been organized for distribution of assistive devices to 7,063 CWSN and 388 CWSN for surgical correction and teachers provided training on Braille and on sign language.
- 49.27 lakh students of 62,640 primary and upper primary schools are covered under MDM programme.
- 9,344 children of migrant families are retained in 254 seasonal Hostels. 8 residential hostels with intake capacity of 50 each for Urban deprived children, child labour and street children are being opened.
- The School & mass education Department organized SURAVI 2015 Mela, a State level creative programme for school students at cluster, blocks and district level to encourage students inherent skills. Awareness programme on Bal Swachhata Abhiyan and Swachha Vidyalaya Abhiyan have been organized on 2nd October 2015 across the State.

[Box 8.1]

### 8.1.3 Secondary Education

There were only 106 high schools with 15,000 enrolments in the State in 1947-48. By the end of 2015-16, there were 9,671 high schools including 8,230 Government and aided schools, 1,146 private unaided, 179 unrecognized high schools, 97 central Government schools and 20 other schools run by Ministry of Human Resource Development, Government of India. Out of total 9,671 high schools, 886 were Girl's High Schools. Computer literacy has been popularized at high school level. The Rastriya Madhyamik Sikhya Abhiyan (RMSA) is a national flagship programme initiated in 2009-10 to universalise Secondary Education by making quality education available, accessible and affordable to all children within the age group 14-18 years with strong focus on the elements of gender, equity and justice. The salient aspects of RMSA are summarized in Box 8.2. Inclusive Education for Disabled Children at Secondary Stage (IEDSS) scheme is being implemented in 108 blocks of 23 districts through 40 NGOs in 2014-15. The objective of the scheme is to provide opportunity to disabled children to complete 4 years of Secondary Schooling in an inclusive

and enabling environment. Since 2015-16 1,02,461 Children with Special Needs (CWSN) have been enrolled in those schools. 329 medical assessment camps have been organised and assistive devices / equipment have been distributed to 7,063 CWSN and 388 numbers of CWSN have been provided with surgical correction in convergence with hospitals. Five days training on Braille and on Sign Language, Curriculum Adaptation for CWSN have been provided by the teachers. Similarly, 3,197 CRCCs have been provided one day training on Curriculum Adaptation. 2,149 sets of Braille books have been distributed to blind children and 259 blind students have been provided Braille training. 12,993 severe OI (Osteogenesis Imperfecta)/ VI (Visual Impairment) / CP (Cerebral Palsy) / MR (Mental Retardation) students have been provided escort allowance and 6,465 CWSN have been provided transport allowance. As on March 2015, Odisha had 793 non Odia Schools i.e. 277 CBSE & 88 ICSE English medium schools, 295 Sanskrit tolls, 31 Navodaya Vidyalaya and 165 number of Madrassa in the State. Figure 8.6 analyses growth of students at the high school level during the same period.

#### Universalisation of secondary education, 2015-16

- 2,608 private high schools have been notified to receive block grant and 399 high schools have been notified during 2015-16. 773 number of new High schools have been sanctioned under RMSA, out of which 745 number of schools have been opened till date. 162 model high schools in educationally back ward blocks have been approved. 100 model schools will be made functional from 2016-17.
- 10,392 qualified teachers have been engaged on contract basis to maintain Pupil- Teacher ratio in secondary schools.
- Vocational education is introduced in 30 schools of the State at secondary school stages in automobile, IT & ITES subjects. OMSA (under RMSA) is the nodal authority run and monitor the vocational education in secondary schools.
- 415 number of Junior SES teachers have been promoted to the posts of Senior SES Headmaster.
- 95 number of teacher (Primary & Secondary) have been awarded for State Award by the Hon'ble Chief Minister, Odisha during 2015-16.
- In order to enhance the retention rate, 5.40 lakh students belonging to SC/ST/BPL/girls categories have been benefitted under distribution of bicycles to class X students at the cost of Rs 140.40 crore. Apart from Government High schools, students reading in Sanskrit tolls and Madrasas have been benefitted under this scheme

[Box 8.2]

Dropout rates at the high school level have been declining at a slower pace. The overall dropout rate declined from 62.00 percent in 2005-06 to 6.02 percent in 2015-16. Dropout rates for STs and SCs are still higher with 06.15 and 10.52 percent respectively during 2015-16. The dropout rate is the highest in Nawarangpur (20.14 percent) and there is no

dropout in Balasore district. The dropout rate of girls is lower than boys during 2014-15 and 2015-16. Further details regarding dropout rates are given in Table 8.10 and Figure 8.6. There is a need for special attention to address this problem. Table 8.10 gives dropout rates at high school level by year and by social classes from 2005-06 to 2015-16.

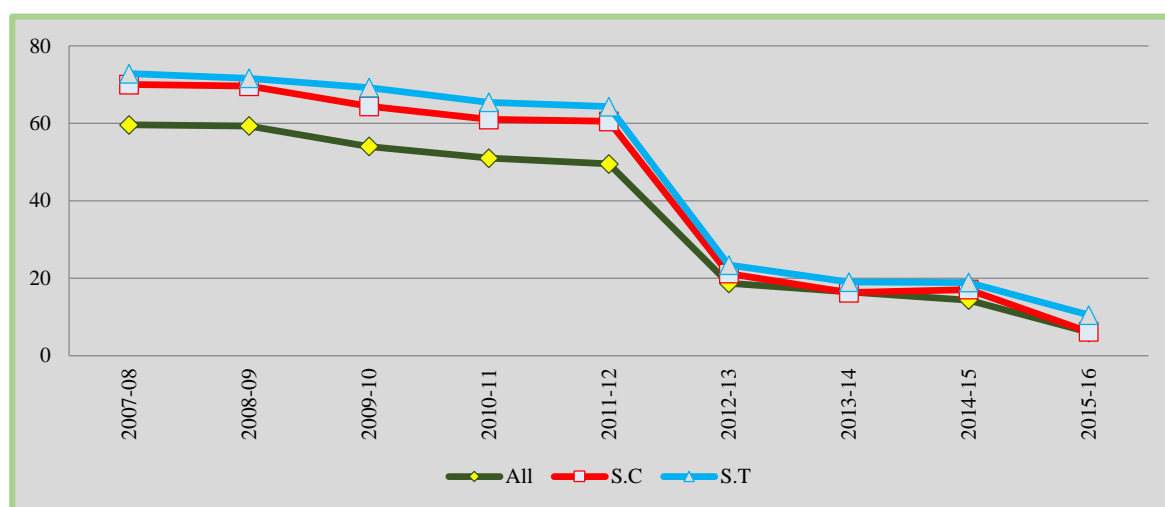
### Dropout Rates in High Schools in Odisha

Year	All Categories			Scheduled Caste			Scheduled Tribe		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
2005-06	60.00	64.00	62.00	70.80	72.50	71.70	75.00	73.00	74.00
2006-07	59.00	62.00	61.00	70.00	71.80	70.90	75.00	73.00	74.00
2007-08	58.20	61.00	59.60	69.00	71.00	70.00	74.60	71.00	72.80
2008-09	58.00	60.60	59.30	68.50	70.70	69.60	73.00	70.00	71.60
2009-10	NA	NA	54.00	NA	NA	64.40	NA	NA	69.20
2010-11	49.90	52.10	51.00	60.00	63.00	61.00	66.70	64.00	65.40
2011-12	47.20	51.80	49.50	59.20	61.80	60.50	65.90	62.70	64.30
2012-13	21.10	16.21	18.70	25.00	17.30	21.20	26.70	19.70	23.40
2013-14	18.30	14.60	16.50	18.70	13.90	16.30	20.50	17.40	19.00
2014-15	14.98	13.74	14.36	18.11	16.01	17.06	26.73	26.95	18.90
2015-16	6.84	5.18	6.02	7.29	4.99	6.15	12.09	8.92	10.52

[Table 8.10]

Source: Director, Elementary Education, Odisha

### Dropout Rate in High School by Communities, 2007-08 to 2015-16



[Figure 8.6]

Source: Director, Higher Secondary Education, Odisha

The Board of Secondary Education (BSE), Odisha regulates various types of examinations. These include high school examination, teachers' certification, Hindi teachers' certification and the certificate course for physical education. It also grants recognition to institutions that provide education through correspondence courses 5.84 lakh students have appeared in the HSC examination conducted by Board of Secondary Education, Odisha in 2016. Out of 5.84 lakh students appeared, 4.88 lakh passed the examination. The pass rate was 85

percent. The percentage of success among SC, ST and girls students stood at 78 percent, 79 percent and 84 percent respectively. In addition, during 2016, 6,848 students have appeared the Class-X examination from 88 number of ICSE pattern in English Medium schools. Out of which 6,726 numbers of students passed the examination, showing the percentage of success as 98.22 percent. The success rate among girls, SC and ST in ICSE, was 98.44, 98.04 and 94.53 percent respectively (Table 8.11).

### Results of Secondary Level Examination, Appeared/Passed, in Odisha

(in 000)

Year	BSE, Odisha			CBSE, New Delhi			ICSE, New Delhi		
	Appeared	Passed	% of success	Appeared	Passed	% of success	Appeared	Passed	% of success
2005	350.41	183.37	52.30	7.91	7.07	89.30	5.15	4.80	93.20
2006	411.37	204.54	49.72	8.40	7.48	88.60	5.41	5.19	95.90
2007	394.32	223.23	56.62	9.34	8.78	94.00	5.43	5.37	98.90
2008	433.14	207.57	47.92	10.16	9.63	94.85	5.64	5.55	93.30
2009	397.23	236.62	59.56	10.09	9.59	95.08	5.51	5.40	98.00
2010	423.76	291.57	69.17	10.82	10.33	95.50	5.50	5.40	98.00
2011	532.98	312.69	58.67	12.26	12.23	99.80	5.84	5.75	98.50
2012	567.84	353.93	62.30	15.39	15.27	99.22	5.94	5.87	98.80
2013	635.31	537.96	84.70	17.31	17.18	99.25	6.02	5.94	98.70
2014	542.79	457.31	84.25	16.76	16.73	99.83	6.26	6.13	97.92
2015	539.57	442.45	82.56	N.R	N.R	N.R	6.58	6.47	98.25
2016	584.01	488.20	85.00	21.72	21.39	98.48	6.85	6.73	98.22

[Table 8.11]

NR: Not Reported

Sources: Board of Secondary Education, Odisha; CBSE, India and ICSE, India

#### 8.1.4 Higher Secondary Education

The Council of Higher Secondary Education (CHSE), Odisha, regulates higher secondary education. The overall percentage of success rate in examinations conducted by CHSE in 2016 was 67.94 percent. The success rate was highest for the Science stream (80.81 percent) followed by Arts (71.57 percent) and

Commerce Streams (70.39 percent). In addition, 182 schools affiliated to CBSE/ICSE also provide +2 level education. Table 8.12 presents the results of class XII examination conducted by CHSE whereas Table 8.13 depicts the same for CBSE and ICSE.



### Results of Annual Higher Secondary Education (+2) under CHSE

Year	Appeared				Passed			
	Arts	Science	Commerce	Total	Arts	Science	Commerce	Total
2005	1,03,320	42,322	12,083	1,57,725	72,988	30,119	9,055	1,12,162
2006	1,05,600	45,561	12,102	1,63,263	64,288	31,389	9,143	1,04,812
2007	1,14,597	49,120	13,065	1,76,784	65,427	29,555	9,080	1,03,664
2008	1,21,676	54,751	15,340	1,91,767	73,811	34,848	11,090	1,19,749
2009	1,40,249	57,812	18,565	2,16,626	97,433	41,439	13,884	1,52,756
2010	1,45,231	52,528	20,765	2,18,524	1,02,674	38,832	15,451	1,56,951
2011	1,59,866	56,280	22,760	2,38,906	1,09,230	41,359	15,553	1,66,142
2012	1,72,895	69,379	25,029	2,67,303	1,22,132	50,325	16,777	1,89,234
2013	1,79,994	76,879	25,012	2,81,885	1,25,263	55,409	17,035	1,97,707
2014	1,96,959	85,723	27,696	3,10,378	1,34,315	60,119	17,766	2,12,200
2015	2,30,272	93,920	32,226	3,56,418	1,75,719	75,434	22,391	2,73,544
2016	2,02,994	84,154	31,707	3,58,855	1,73,902	68,003	22,320	2,64,225

[Table 8.12]

N.B.: Besides the result in vocational +2 result 9890 appeared, 5704 passed with 57.67 percent success

Source: CHSE, Odisha

### Results of Higher Secondary Education in Odisha, CBSE and ICSE

Year	Schools	Students Passed (CBSE)			Schools	Students Passed (ICSE)		
		Total	Girls	% of success		Total	Girls	% of success
2005	65	2,786	1,101	84.7	20	1,071	441	91
2006	72	3,309	1,377	89.8	21	1,141	463	90
2007	72	3,605	1,462	89.9	22	1,142	461	97
2008	77	4,046	1,694	89.4	21	1,342	609	97
2009	77	4,903	2,089	90.3	21	1,407	570	97
2010	89	5,551	2,341	89.7	22	1,501	665	94.2
2011	95	5,855	2,490	90.5	24	1,445	622	94.9
2012	132	8,764	4,085	82.3	26	1,401	642	94.2
2013	148	10,490	4,884	84.1	27	1,642	777	91.6
2014	128	8,892	3,871	87.86	24	1,516	751	89.70
2015	147	9,979	4,347	80.77	25	1,545	697	93.38
2016	155	11,449	4,937	83.03	27	1,387	654	92.34

[Table 8.13]

Sources: CBSE, New Delhi and ICSE, New Delhi

### 8.1.5 Vocational Education

Vocational education is being provided at +2 level in 231 Government Vocational Junior Colleges (GVJC) in 20 different Vocational courses with a view to produce semi-skilled personnel and to prepare students for self-reliance and gainful employment. During the year 2015-16, 8,850 students are admitted. A total number of 10,115 (Regular+ Ex-Regular) students were enrolled in 231 GVJCs, out of which 9890 appeared in +2 examination and 5,704 passed out yielding 57.67 percent success rate. Training programme has been conducted for full time resource persons to update their knowledge. Steps have been taken for strengthening the existing 231 GVJCs. Vocational education in IT & ITeS introduced in one selected high school in each district from 2016-17. There are 11,757 students have been admitted in GVJCs in the academic session 2016-17. 2330 no of +2 vocational students are undergoing intensive skill test in 12 trade subjects to make them employable. Four Regional Boards of Practical Training (BOPT)/ Board of Apprenticeship Training (BOAT) are setup by the Ministry of Education and Culture, Government of India. An extension center of BOPT, Kolkata in collaboration with Directorate of Vocational Education has been operationalized from July, 2016. The pass out students are getting monthly stipend of Rs.2,758/- under Apprentices Act.

### 8.1.6 Higher Education

Higher Education in Odisha comprises degree and post graduates level education including the higher secondary and +2 vocational education. In 2016, there were 94 Government colleges, 787 aided colleges, 643 block grant colleges, 571 non- Government (unaided) colleges, 287 self-financing colleges, 14 other colleges and 50 aided Sanskrit colleges in the

State. At the time of independence, there was only one University in the State which has increased to 11 including 4 newly private established University/ Institution viz. Centurion University of Technology Management, Paralakhemundi, Sri Sri University, Cuttack, ICFAI University, Bhubaneswar and Xavier University, Bhubaneswar. The opening of Institute of National repute like Central University at Koraput, National Institute of Science , Education and Research (NISER) at Bhubaneswar, National Law University at Cuttack, and Indian Institute of Technology at Bhubaneswar, Indian Institute of Science, Education and Research at Berhampur, Indian Institute of Management at Sambalpur, has not only made the State of Odisha an Educational Hub but also thrown open source challenges and opportunities before the Higher Education Department. Government has also established Sambalpur University Institute of Information and Technology (SU-IIT) in Sambalpur university campus in line with IIT, Bhubaneswar.

His Excellency, the Governor of Odisha, has assented for establishment of Birla Global University and the proposal for Vedanta University is awaiting the assent of His Excellency. Besides, there are 12 more proposals for establishment of Universities in private sector, which are under consideration of State Government. The National Assessment and Accreditation Council (NAAC) has been made mandatory accreditation for all Universities, Government and non-Government aided degree colleges. In Odisha, majority of the Universities and the colleges, had adopted for accreditation during 1st cycle. Six (6) Universities and 210 colleges have undergone accreditation. Autonomous status has been accorded to 16 Government and 16 non-Government colleges.

The University Grants Commission (UGC) has identified Ravenshaw College, Cuttack, Government College, Bhawanipatna and Gangadhar Meher College, Sambalpur, as Centres of Potential Excellence (CPE), entitling them to special financial assistance. In the meantime, Ravenshaw College has been converted into a residential University. Proposals have been submitted to Government of India for ICTY activities, internet

connectivity, teachers capability building, ICT aided education etc. under centrally sponsored scheme. There are 50 Government Jr. Colleges and 488 non-Government aided Jr. Colleges in Odisha. Broad band connectivity has already been extended to 700 number of Degree colleges and all State Universities. The major initiatives of Higher Education during 2015-16 have been given in Box 8.3.

### Major Initiation by Higher Education

- Rama Devi Women's (Autonomous) College, Bhubaneswar, Khalikote (Autonomous) College, Berhampur and Gangadhar Meher (Autonomous) College, Sambalpur, were upgraded into universities under RUSA Project and were declared as universities on 30th May, 2015.
- The State Open University has been set up at Sambalpur during 2015-16.
- Three colleges have been upgraded to Model Degree College at Puri, Balasore and Sundargarh under RUSA project of MHRD.

[Box 8.3]

### 8.1.7 Technical Education

The Industrial Policy of the State envisages a series of measures to improve technical education and enhance the quality of technical manpower. Technical education is imparted through engineering colleges, engineering schools, polytechnics, Industrial Training Institutes (ITIs), Industrial Training Centres (ITCs) and vocational educational institutions and universities. The Directorate of Technical Education and Training (DTET) functions as the nodal agency to plan and implement technical education programmes in the State and liaise with the State Council of Technical Education, universities and national level technical institutions and agencies. At present there are two Technical Universities under the administration of State Government (i) Veer Surendra Sai University

of Technology, Burla offering B.Tech. in 11 disciplines, M.Tech in 7 disciplines and MCA.(ii) Biju Pattnaik University of Technology (BPUT), Rourkela has 7 constituent colleges (Government) under its jurisdiction and one Government aided autonomous college (under PPP mode) affiliated to the University. Total 93 colleges (both Government & Private) offer courses in 23 disciplines with Sanskrit intake of 46,296. 30 Government and 117 private engineering schools/polytechnics are providing education in diploma engineering courses with 45,335 sanctioned intake strength. In addition to the above, 612 ITIs/ITCs with 78,673 sanctioned intake capacity have also been providing craftsmanship training for skill development of youths.

### Technical Institutions in Odisha

Institution	No.	Sanctioned Intake	Institution	No.	Sanctioned Intake
Government Engineering College	6	3756	Government Medical Colleges	3	550
Private Engineering College	87	42,540	Government Dental Colleges	1	50
Government Engineering Schools/polytechnics	30	7875	Private Medical Colleges	5	600
Private Engineering Schools/Polytechnics	117	37440	Private Dental Colleges	3	300
Architecture	5	440	Government Pharmacy Colleges	1	60
Film & TV Institute	1	60	Government MSC Nursing Colleges	1	17
Government MCA Colleges	5	270	Private MSC Nursing Colleges	5	69
Private MCA Colleges	36	2505	P.BB.Sc Nursing Government	1	40
Government MBA Colleges	3	300	Nursing Schools (Government) (GNM)	11	640
Private MBA College	59	5025	Nursing Schools (Pvt.) (GNM)	65	2320
ITI/TTC	613	78673	ANM Training Centre (Government)	19	740
National Institute of Technology	1	360	ANM Training Centre (Pvt.)	109	3135
Indian Institute of Handloom & Textile	1	60	P.BBSc Nursing Pvt.	4	120
Odisha University of Agriculture and Technology	1	1808	Basic BSc Nursing PVt.	16	670
Basic BSc Nursing Government	1	40	Diploma in Physics	1	20

[Box 8.4]

#### 8.1.8 Education for ST & SC Communities

As a priority area of intervention, the State government is committed to improve the educational status of SC and ST communities in particular by a series of government sponsored measures like free education, award of scholarships, boarding facilities, free text books, to SC/ST students in the State. The literacy rate of SCs and STs increased to 69.02 percent and 52.24 percent in 2011 respectively, a rise by 15.87 and 14.49 percentage points respectively over 2001. The gender gap of SC and ST also reduced by

20.45 and 22.50 percent in 2011 respectively. At present 1,670 educational institutions including 766 Ashram schools, 510 Sevashram and Residential Sevashram schools, 337 high schools (173 for girls), 22 higher secondary schools, and 19 Educational Complex for PTGs, two secondary training schools, One B.Ed. training school and 13 EMRS (Ekalavya Model Residential Schools) are functioning under the administrative control of ST & SC Development Department. Besides, 9 more EMRS schools are under progress. The State Government has established 11 KMRs (Kalinga Model

Residential School) from Class VI to XII in TSP areas from its own resources. During 2015-16. There are 4.60 lakh of students including 2.50 lakh girls enrolled in these

schools. The following initiatives have been taken up during 2015-16 to improve the quality education among SCs & STs:

#### Major Initiation for SC & SC Education

- E-enabled computer labs are established in 86 high schools and English language labs are also set up in all 13 EMRS. Smart Class rooms with modern teaching , learning aids & lectures, multimedia contents are set up in all 13 EMRS and 8 (eight) higher secondary schools
- Online engineering coaching is provided in 22 higher secondary schools and EMRS.
- 100 best performing SC/ST students are imparted with integrated + Science and medical coaching
- Out of 28 High Schools in TSP area 22 have been upgraded to HSS during 2015-16 and steps have also been taken to open ITI in every TSP block.

#### [Box 8.5]

During 2015-16 academic year, development of language dictionary in kandhen, binjal and Sadri languages combined have been conceived and developed by language teachers. During 2014-15, an amount of Rs.50 lakh for block and zonal level science exhibitions in 307 high schools. Scouts and Red Cross units operate in 307 high schools. NCC units are opened in 20 High schools. From the academic year 2013-14, 30 new Ashram High Schools have been opened in TSP area by MoTA. Out of these, 17 are

functioning and rest are being made functional from 2015-16. Fourteen number of High Schools/Girl's High Schools have been upgraded to Higher Secondary Schools an also a proposal to upgrade 28 High Schools is under consideration by Government. 18 new High Schools have been upgraded to Higher Secondary Schools. Steps are being taken to make operational of the said HSS from the academic session 2016-17. The details are presented in Table 8.14.

#### Educational Institutions under SC and ST Development Department 2015-16

Category of Schools	No. of schools	Category of hostels	No. of hostels
Ekalabya Model Residential Schools	13	Primary School Hostels(in ITDA Blocks)	1548
Upgrade Higher Secondary Schools	22	Primary School Hostel in (ST Boys& Girls) KBK districts	400
High Schools (Boys)	164	Residential Ashram School in TSP	52
Girls High Schools	173	For New Ashram School	30
Ashram Schools	766	Special Adivasi hostel	7
Secondary Teachers Training Schools	3	Hostels for SC girls & Boys	438
Residential Sevashrams	5	ST Girls & Boys Hostels	1000 during 2013-14
Educational Complex for PTGs	19		
Sevashrams	505		
B.Ed. Training Colleges	2		
Total	1670		

[Table 8.14]

Source: SC & ST Development Department, Odisha

An initiative for career counselling among SC & ST students of High schools of SSD Department by opening “Career Counselling Desk” in each of the 307 High schools. “School Cabinets” have been formed in each school of SSD Department to provide a strong platform and opportunities to develop skills, communication, sense of responsibility and other social skills among students. It is technically supported by UNICEF, Odisha.

### 8.1.9 Important Government Policies and Programmes

#### Mass Education

“Sakhyar Bharat”, a centrally sponsored scheme has been launched in September, 2009 by Government of India as a new variant to National Literacy Mission (NLM). It aims at imparting functional literacy to non-literates aged 15 year and above. In Odisha, 19 low female literacy districts were identified under this programme in 2009-10. The programme is being implemented in 19 districts covering 20,694 centres of the State. Out of 3,852 Adult Education Centres (AECs) of 19 districts 1,064 AECs have opened in three districts. 15,38,664 learners have appeared in the Assessment Test out of 27,46,473 learners in 19 districts. The Ministry of Human Resource Development (MHRD) has redesigned NLM to inculcate new enthusiasm into it. An outlay of Rs.400.00 lakh towards Central and State share in the ratio of 75:25 has been proposed under the CSS” Support for Educational Development including Teachers Training and Adult Education”.

#### Mid-Day Meal (MDM) Scheme

The national programme of nutritional support to primary education was launched by GOI in the year 1995. The primary objective of the scheme was to provide nutritional meal to children in Government and aided schools to

increase the enrolment, reducing the dropouts and improving the nutritional status of the children in the schools, the Mid-Day Meal (MDM) programme was introduced in the state in 1995. As per the direction of the Hon’ble Supreme Court, cooked meal at noon time is being provided to all students of all the Government/ Government Aided primary schools with effect from 1st September 2004. Further, this has been extended to Upper Primary School children with effect from 1st October, 2007. During 2015-16, in Odisha everyday 51.89 lakh children of 62,660 schools are benefited with hot cooked nutritious food. The ration cost has been enhanced from Rs.3.79 to Rs.4.31 for Primary school children and Rs.6.43 for upper Primary student. The calorific value of the meal is now 493.6 K. calories and 13.8 gm. of protein for Primary Classes and 728.97. K calories and 20.5 gm. for UP Classes. In order to keep the teachers at bay, Government have entrusted the management of MDM programme at school level to WSHGs. Government of Odisha organized awareness generation Meals on MDM. Eggs are served twice in a week under MDM in the State. Ministry of HRD, Government of India have accredited these two steps in Odisha as the best practices under MDM scheme since 2014-15.

To run the scheme 1.28 lakh cook-cum-Helpers gets honorarium of Rs.1,000/ for 10 months in a year. Besides this 29,900 Women Self Help Group (WSHG) and 2 Trust namely Akshya Patra Foundation and Mana Trust are also managing the MDM Programme. To ensure smoke free and eco-friendly environment 12,619 schools have been sanctioned budget from Govt. of Odisha. 3,300 schools have been connected with LPG and 10,000 more schools are proposed to be covered during 2016-17 @Rs.7,000/- per

school. Besides this, the Odisha Renewable Energy Development Agency (OREDA) has installed 7,795 smokeless chullas have been installed in 3,902 schools by February, 2016. Government of Odisha has proposed Rs. 17,394.52 lakh as against the Central share of Rs.62,337.00 lakh for implementation of the Scheme with a ratio of 75:25 during 2015-16.

### Quality Improvement in Education

The State Government has taken initiatives not only for quantitative expansion but also for qualitative improvement in education at all levels. The government provides grants to institutions, incentives to teachers and scholarships to students for improved performance. The following initiatives have been taken during 2015-16.

- State Government have given adhoc appointment of 623 number of lecturers in both the category of Junior colleges and degree colleges.
- To monitor the financial expenditure and human resources in the colleges, a Personal Information Management System (PIMS) has been implemented in 114 Junior and Degree colleges in the 1st phase and gradually covers all.
- Government has introduced e-Administration under the project “Student Academic Management System’ (SAMS), from the academic session of 2009-10 in 60 junior colleges, but now it covers all junior, Degree /Autonomous colleges (including self-financed colleges).
- Government have established 17 number of monitoring cells headed by district consultants and have conducting zone wise meetings periodically under Chairmanship of Hon’ble Minister, Higher Education.

- Action has been taken to fill up 272 vacant post of Jr. Lecturers in Government colleges. Similarly for filling up 352 numbers of vacant post lecturers (CB) in Government degree colleges. OPSC has been requested and selection process is going on. On the recommendation of OPSC, the State Government have already appointed 01 lecturer and 102 junior lecturers in different Government colleges.
- State Government have given Adhoc appointment of 623 lecturers in both Junior and Degree colleges.
- State Government have extended to 100 percent Block grant in shape of grant-in-aid GIA order, 2009 in favour of 6,651 teaching and 5,810 non-teaching staff of 784 non-government aided college.
- As per NCTE Regulation 2014, the revised syllabus for B.Ed. & M. Ed has been implemented from 2015-16.
- The Odisha Secondary School Teacher Eligibility Test (OSSTET) has been introduced from 2015-16.
- 1.2 lakh seats in Junior colleges and 54,000 seats in Degree colleges were increased which will result to increase the Gross Enrolment Ratio (GER) of higher education in Odisha from 17.5 percent to 30.0 percent by 2020.

### Post matric scholarship Registration Release And Network Automation: PRERANA

ST & SC, Minority, Other Backward Classes Welfare Department has launched the integrated E-Governance Portal namely PRERANA (Post matric scholarship Registration Release And Network Automation) with the collaboration of NIC, Bhubaneswar for streamlining & effective

management of procedures related to application receipt, processing, sanction and disbursement of Post Matric Scholarship to the eligible students belonging to Scheduled Tribes, Scheduled Castes and Other Backward Classes through DBT (Direct Benefit Transfer) mode. It is providing financial assistance to students belonging to SCs, STs and OBCs who are inhabitant of Odisha for perusing Post Matriculation studies in General or Technical/Professional courses in any Government Institution or recognized Private Institution located inside & outside State. Every year approximately 3 lakh students are being benefited under the scheme since 2011-12. The interested candidates may apply in the pre-designed application-form, which shall be made available in the Post-matric on-line Scholarship portal i.e. PRERANA at <http://ori.nic.in/odishapms>.

#### **Quality Urban Education for ST&SC Students: ANWESHA**

With the objective of providing best educational opportunities to the poor ST/SC students, the Government of Odisha has launched a new scheme called ANWESHA from the year 2015-16. Under the scheme quality education is provided to ST and SC students in Partnership with Private Educational Institutions located in Urban Centres and District Headquarters. The programme is being implemented in 17 tribal dominated districts wherein ST and SC students are admitted to Class I in best private schools located in their districts. The entire cost of the education for the students, including tuition fee, uniform, books and study materials, transportation to schools and post-school tutoring is borne by the State Government. Students are also provided with free accommodation and food in the urban hostels with provision of full time warders and

cook-cum-attendants. Every year 5,000 ST/SC children from BPL households (in proportion of 70 percent ST and 30 percent SC) will be provided quality education under ANWESHA. During 2015-16, ANWESHA has already benefitted 2,700 ST/ SC children and over next few years 25,000 ST/ SC students are targeted to be covered under the scheme.

ST and SC students sponsored under ANWESHA are admitted beyond the 25 percent seats reserved for disadvantages students under RTE, Act. Annual School fees is paid to school by the State Government with a maximum ceiling of Rs.25,000/- per student covering costs towards admission, tuition charges, library charges, other miscellaneous charges etc.

Schools are selected and empanelled by the District Level Committee based on criteria like recognition of school, availability of infrastructure, qualified teachers, PTR, academic performance etc. Students are selected, out of eligible applicants, through a lottery system by the District Level Committee under the Chairmanship of District Collector

#### **Urban Hostels in Bhubaneswar for ST and SC Students: AKANKSHA**

The State Government has sanctioned 2 urban hostel complexes named AKANKSHA in Bhubaneswar; at Pokhraiput and Kalinga Vihar. It was observed that many ST and SC students are able to secure admissions to good educational institutions in the State capital, but are often unable to meet the boarding expenses. Keeping this in mind, these hostels will provide residential facilities to the students perusing post-matric courses in institutions located in and around Bhubaneswar. The Urban hostel in Pokhraiput which is already launched, has a capacity for



500 girl students. The urban hostel at Kalinga Vihar has a capacity for 400 Boys, will be operational in the next few months.

80 percent of the seats will be available for ST students, while 20 percent will be assigned for SC students. Further, out of the total seats reserved for each category, 30 percent seats will be reserved for the +2 courses, another 30 percent for the graduate and post-graduate courses with equal distribution to all the 3 streams of education i.e Arts, Science and Commerce. Remaining 40 percent seats would be allotted to students pursuing any technical/professional courses. Boarders of the Urban Hostel Complexes shall be provided with free residential facility in the Hostel with provision of Cots, Mattress, Bed sheet, Pillow and one unit of Table and Chair. Boarders shall also be provided with free of cost food, as per the pre-defined menu, out of the Maintenance Allowance component of their Scholarship.

Facilities like Reading Room, Recreation Room, Activity Room etc. are also available in the hostel.

#### **Odisha Girls Incentive Programme (OGIP)**

SSD Department with the support of DFID is implementing OGIP for ST and SC girl students of Class IX and X since 2013. They are provided with an additional top-up amount of Rs.950/- per annum, over and above their usual scholarship entitlement to encourage their participation and completion of Secondary Education by them with the objects to enhance the transition rate, attendance rates to increase the graduation rates of SC and ST students and to promote improved community and household cultural norms and attitudes towards secondary Education of girls. During 2015-16, 2.37 lakh ST and SC girl students have been paid top-up amount of Rs.950.00 per annum for which the total expenditure was Rs. 22.41 crores.

#### *Success Story*

##### **OLM shows the way...**

Odisha Livelihood Mission (OLM) marches ahead with skilling the potential youth of the State and providing sustained employment & livelihood opportunities. The case of a poor girl's inclusive efforts shows the way. Ms Subhamani Mallick, a class X pass out in 2014-15 from a poverty ridden family of Badagaon village of Kandhamal district of Odisha became a beneficiary under the PMS scheme, working part time as a "Bank Mitra" for the OLM project for the last 7 months to support her widow mother. She received sensitization, guidance and orientation about the banking process at many occasions during her school time under Financial Literacy (FL) orientation sessions. Her perseverance, sincerity and communications as an active participant during the sessions skilled her to manage banking transactions efficiently. Her past experience of handling bank account and the knowledge she gained from the FL helped her to get the job and sustain livelihood for herself and her family. She also helps to guide SHGs in her village. "Bank Mitra" under OLM has a definite role in livelihood sustenance.

#### **[Box 8.6]**

#### **8.1.10 Scholarships**

Various scholarships are being awarded by the State Government to meritorious and poor students of Odisha for pursuing higher studies. In order to make the process easy, it has been made on line for application/ selection/ renewal and disbursement. From 2010-11, the State Government has revised the rate of Junior Merit Scholarship, Senior Merit

Scholarship and P.G. Merit Scholarship to Rs.3,000, Rs.5,000 and Rs.10,000 respectively. The income ceiling of parents has been enhanced from Rs.4.5 lakhs to Rs.6.00 lakh per annum. For girl students the qualifying percentage for applying scholarship has been reduced from 70 percent to 60 percent. It is expected that as many as 24,500 students will be benefited. Besides, Rs.10,000

per annum is being given to 10,000 brilliant students pursuing higher studies in the field of technical/ professional education. The Department of Higher Education has been awarding interest free loan stipends to 480 deserving meritorious students in the field of Science, Medicine and Technologies etc. @ Rs.15,000, Rs.12,000 and Rs.8,000 for each academic year.

Pre and post-matric scholarships are given to SC and ST students to encourage them to pursue education. The SC and ST boarders studying in Classes I to X in the schools managed by the ST and SC Development Department and in Classes VI to X of the

School and Mass Education Department get scholarships at the prescribed rate. Day scholars in ME and high schools are given scholarships. The Government provides post-matric scholarships at different rates for different courses. Table 8.15 indicates that during 2015-16, Rs.461.22 Crore has been released towards the payment of post matric scholarships to 5.11 lakh SC/ST students (Rs.263.56 crore to 2.76 lakh SC and Rs.197.66 crore to 2.35 lakh ST students). Similarly, during 2015-16, Rs.424.46 crore has been released towards the payment of pre-matric scholarships to 13, 03,328 SC/ST students (Rs.86.53 crore to 4,65,652 SC and Rs.337.93 crore to 8,37,676 ST students).

#### Achievement under Pre- and Post-Matric Scholarship

Year	Pre-Matric Scholarship						Post-Matric Scholarship					
	Amount Released (Rs in crore)			Students Benefited (In lakh nos.)			Amount Released (Rs in crore)			Students Benefited (In lakh no.)		
	SC	ST	Total	SC	ST	Total	SC	ST	Total	SC	ST	Total
2002-03	NA	NA	62.43	3.42	3.67	7.09	4.98	4.34	9.32	0.45	0.35	0.80
2003-04	11.43	56.53	67.96	3.44	3.88	7.32	6.23	5.26	11.49	0.46	0.39	0.85
2004-05	13.3	57.95	71.25	3.75	4.18	7.93	6.52	5.83	12.35	0.42	0.34	0.76
2005-06	12.36	54.8	67.16	4.09	4.43	8.52	8.25	5.95	14.2	0.50	0.40	0.90
2006-07	20.08	74.07	94.15	3.76	4.5	8.26	14.14	11.99	26.13	0.52	0.43	0.95
2007-08	14.11	113.05	129.93	3.81	5.47	9.28	15.53	12.71	28.24	0.57	0.47	1.04
2008-09	22.40	126.75	149.15	3.92	5.67	9.59	17.99	15.5	33.49	0.63	0.49	1.12
2009-10	29.50	181.14	210.64	5.07	6.31	11.38	13.61	17.08	30.69	0.69	0.53	1.22
2010-11	26.97	176.41	203.38	5.16	6.93	12.09	28.72	18.96	47.68	0.79	0.60	1.39
2011-12	31.00	222.86	253.86	5.69	7.78	13.47	33.96	28.42	62.38	0.81	0.69	1.50
2012-13	65.88	261.61	327.49	5.97	8.30	14.27	51.94	63.59	115.53	1.01	0.85	1.86
2013-14	77.08	314.21	391.29	6.26	8.71	14.97	58.81	65.64	124.45	1.42	1.20	2.62
2014-15	86.53	337.93	424.46	4.66	8.38	13.04	92.79	68.42	161.21	0.69	0.82	1.51
2015-16	106.68	430.79	537.47	5.91	9.02	14.93	263.56	197.66	461.22	2.76	2.35	5.11

[Table 8.15]

Source: SC and ST Development Department, Odisha

### 8.1.11 Revamping of Higher Education in Odisha through RUSA

The Odisha State Higher Education Council has been formed to undertake the process of planning, execution and evaluation and also monitoring the capacity building programme. The State is committed to spend 2.0 percent of GSDP for implementation of RUSA and to maintain student teacher ratio 15:1 and 12:1 in colleges and universities respectively. The proposal for financial outlay of Rs.2, 035.00 crore under RUSA perspective plan during XII Plan period has been submitted to GOI.

#### Laptop Distribution

Government of Odisha has announced a progressive youth policy for benefiting the young generation of Odisha in 2013. One of the objectives of the youth policy is to have access to laptop to meritorious +2 pass out students to meet their learning requirements. Since 2014-15, vocational students passing from CHSE and Upashastri students passing from Sanskrit University have been included in this programme. For the last three years 15,000 Laptops are distributed every year to the students passing annual HS examination and continuing their studies in higher educational institutions.

#### Odisha Knowledge Corporation Limited

Government in Higher Education Department has established Odisha Knowledge Corporation Ltd.(OKCL)in joint venture with Maharashtra Knowledge Corporation Limited (MKCL) in the year 2011. The main objective of this scheme is to accelerate the socio-economic development of the state by providing IT enabled education to the masses through Odisha State Certificate in Information Technology (OS-CIT). Recently, OKCL has successfully registered more than 300 authorised learning centers with a total

admission of more than 4000 learners all across the 30 districts of Odisha.

#### OKCL has undertaken the following projects:-

- e-Vidyalaya project: Provision of ICT labs to 4,000 schools across 30 districts of Odisha for 5 years.
- TE and SCERT project: Development of web-based application software to facilitate application process for more than 2 lakh candidates applying for teachers training courses.
- Digitization of State NSS Cell: This includes monitoring of regular/special camps.

#### Teacher's Education and Training

There are 80 (65 elementary and 15 Secondary level) Teachers Education Institutions (TEIs) under S and ME Department. By the end of 2014-15, 478 teachers and existing staff of DTET are deployed in these 80 TEIs. All the teachers Education Institutions are Government institutions. The intake capacity of D.EL.Ed 6,650 and the intake capacity of B.Ed courses 2,000. Government of Odisha also introduced D.EL.Ed courses in Telugu and Olchiki language in the state. Out of 1,750 students 1106 appeared and 1,061 passed in the B.Ed courses during 2014-15. The National Council of Teachers Education (NCTE) has approved for opening of teachers training courses in 7 universities, 16 autonomous college and 8 DIETs of the State.

#### National Social Service Scheme (NSS)

This is a centrally sponsored scheme that engages and encourages rural youth to undertake productive activities. Now the scheme is operating in 11 Universities, one deemed University and CHSE, Odisha. The funding pattern of the scheme is in the ratio of

75:25. The programme has a volunteer strength of 1, 06,500. During 2015-16, Rs. 4.00 crores was provided in the State budget for the programme. Volunteers were involved in activities like blood donation, plantation and AIDS consciousness programmes. The Central Government has enhanced the rate of expenditure for the NSS Volunteers. One Principal, one male volunteer and one female volunteer have received the Prestigious Indira Gandhi National Award on 19th November, 2015 for the year 2014-15.

### **National Cadet Corps (NCC)**

NCC has been promoted in the state jointly by Government of India and state Government. At present 55,679 students of 184 colleges and 614 high schools have been enrolled under the NCC programme. Cadets take part in national-level camps as well as in annual training camps. They are also involved in social welfare activities like plantations, sanitation, blood donation and awareness Generation Programme on HIV and AIDS etc. A sum of Rs.15.86 crore out non-plan and Rs.2.00 crore out of plan was provided in the budget during the year 2015-16 for the development of NCC activities. Three (3) NCC units have been opened in the KBK area of Bhawanipatna, Nawarangapur and Rayagada and one at Keonjhar. Government have agreed for opening one naval unit at Paradeep.

### **Establishment of Language Laboratories in Odisha**

As per the recommendation of the Task Force on Higher Education, Department has agreed to establish 93 Language- cum-Communication laboratories in 20 Government colleges and 17 non-Government colleges in order to improve the English speaking skills of the Oriya medium students during 2012-13,2013-14 and 2014-15. During

2015-16, 35 language laboratories have been set up. A short term course in communication skill in English language is imparted in 25 colleges on pilot basis.

### **Establishment Community Colleges in PPP mode**

Government of India have decided to open 7 community colleges under PPP mode in the Government Autonomous colleges of Odisha each college will get 21 lakhs to open trade related courses such as, Tourism and Hospitality management and Retail management. The Diploma course in the above subject was start from 2014- 15 academic session. In the meantime, 350 students have successfully completed the diploma course during 2015-16 academic session.

### **Government Model Degree Colleges in low GER (Gross Enrolment Ratio) districts**

As per the decision of National Development Council , Government in Higher education Department has decided to establish 8 Model Degree Colleges one in each in the districts of Boudh, Deogarh, Malkangiri, Nawrangapur, Nayagarh, Nuapada, Rayagada and Sonapur keeping in view of their low gross enrolment ratio. Now all these 8 Model Degree Colleges will be set up under RUSA project.

## **8.2 Health and Family Welfare**

Health sector performance in Odisha exhibit sustained improvement over the years. The improvements have been the outcome of concerted and continued efforts of the Government of Odisha towards establishing more efficient systems through effective planning, financing, human resource management, infrastructure, supply chain management and e-governance. The State Government makes consistent initiatives to reduce the prevailing regional disparities and

gaps in the access to safe drinking water, public and private health care infrastructure, rural health care infrastructure, access to preventive and medical care, public hygiene, information system on health care and nutrition, skilled manpower etc.

### 8.2.1 General Health

Quality and adequate health care services lead to better learning ability, nutritional retention, capability enhancement and standard of living of people. It helps in limiting family size, improving basic amenities and reducing poverty significantly. Essentially three categories of health indicators like outcomes (Infant Mortality Rate etc.), process (institutional delivery etc.) and input (infrastructure, public expenditure, National Health Mission etc) describe the progress of health sector in the State. The Crude Birth Rate (CBR) is the number of live births occurring among the population of a given geographical area during a given year per 1000 mid-year total population on the given geographical area during the same year. The Crude Death Rate (CDR) is the total number of death of a given geographical area during a given year per 1000 population on the given geographical area during the same year. The Infant Mortality rate (IMR) is the number of deaths of infants under one year old per 1000 live births.

The Crude Birth Rate (CBR) and Crude Death Rate (CDR) and Infant Mortality Rate (IMR) for Odisha vis-à-vis India are shown in Table 8.13 and Figure 8.7 from 2006 to 2014. As of 2014, the CBR for Odisha was 19.4 per thousand against the national average of 21.0 per thousand. The CBR for urban and rural Odisha stood at 14.2 and 20.5 respectively against the corresponding national averages of 17.4 and 22.7. The CDR declined from 9.5 in 2005 to 7.9 in 2014 at State Level as against

7.6 in 2005 to 6.7 in 2014 at the national level. The CDR of other major States like Madhya Pradesh (7.8), Chhatisgarh (7.7), Uttar Pradesh (7.4) and Assam (7.2) also remains high. The CDR for rural and urban Odisha stood at 8.2 and 6.4 respectively as against 7.3 and 5.5 at national level in 2014. The IMR at State Level is 49 per thousand whereas the same indicator stood at 39 per thousand at the national level.

### 8.2.2 Infant Mortality

As is evident from Figure 8.8, IMR has shown a considerable decline from 73 per 1,000 live births in 2006 to 49 in 2014, IMR in rural Odisha was 53 as compared to 38 in urban areas in 2013. At the national level, IMR stood at 39 and varied from 44 in rural areas to 27 in urban areas in 2013. Infant Mortality Rates (IMR) in Odisha has continuously declined from 75 in 2005 to 49 in 2014. Annual Health Survey 2013 by Census of India, Registrar General of India reflect the district-wise CBR, CDR and IMR in Odisha (Annexure 8.1). According to the survey results, the IMR of Odisha in 2012-13 is 51. Bolangir recorded the highest IMR of 98 and Puri and Jharsuguda have the lowest IMR of 47. The classification of districts of Odisha according to IMR for the year 2012 and 2013 is presented in Table 8.16. The decline in IMR in Odisha has been significant in recent years due to State Governments priority interventions on availability of professional attendance at birth and high rate of premature deliveries ; reduction in incidence of malaria, acute respiratory and tetanus infections and anemia among infants and women, particularly during pregnancy and on professional pre and post-natal care. About 69 percent of infant deaths are attributed to neonatal mortality. Premature deliveries cause 38.5 percent infant deaths. Pneumonia, respiratory infection, tetanus and diarrhea in new born account for 34.1 percent

of infant deaths. Anemia, which is caused due to malnutrition suffered by both pregnant mothers and infants accounts for 8.1 percent infant deaths. Odisha has launched an Infant Mortality Reduction Mission with a view to reducing IMR at an accelerated rate. As per

recently published NFHS-4 Report, the IMR of Odisha reduced significantly from 49 in 2014 to 40 in 2015-16. The under – five mortality rate (U5MR) of the State also declined remarkably from 91 in 2005-06 (NFHS-3) to 49 in 2015-16 (NFHS-4).

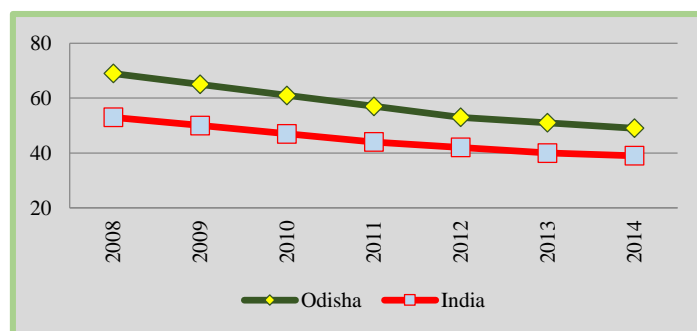
**Classification of Districts according to Infant Mortality Rate 2012 and 2013**

IMR Range	2012	2013
Less than 50	Balasore, Jharsuguda, Angul, Sundargarh, Jajpur and Mayurbhanj	Jharsuguda , Balasore, Mayurbhanj , Sambalpur, Sundargarh , Angul, Bhadrak, Jagatsinghpur, Jajpur, Koraput, Malkangiri, Nuapada, Sonapur and Nabarangpur
51 to 60	Bhadrak, Jagatsinghpur, Nabarangpur, Malkangiri, Nuapada, Sambalpur, Sonapur, Koraput, Kalahandi, Keonjhar, Ganjam and Boudh	Keonjhar, Kalahandi, Cuttack, Gajapati, Ganjam, Boudh, Kendrapara, Rayagada, Bargarh, Deogarh and Nayagarh
61 to 70	Cuttack, Gajapati, Kendrapara, Rayagada, Bargarh, Debagarh, Nayagarh and Dhenkanal	Dhenkanal and Khordha
71 and above	Khordha, Puri, Kandhamal and Bolangir	Puri, Kandhamal and Bolangir

[Table 8.16]

Source: Sample Registration System Bulletin

**Infant Mortality Rate in Odisha and India, 2008-2014**



[Figure 8.7]

Source: Sample Registration System Bulletin

**District wise Infant Mortality Rate (IM), 2012-13**



[Map 8.2]

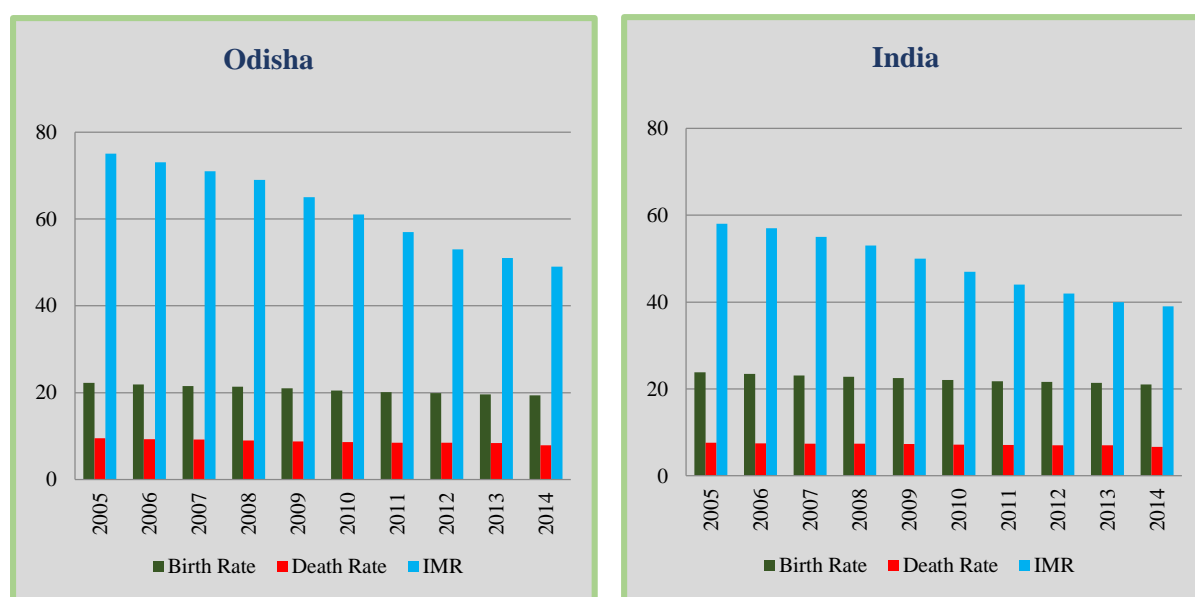
### Birth Rate, Death Rate and Infant Mortality Rate in Odisha / All India

Year	Odisha			All India		
	Birth Rate	Death Rate	IMR	Birth Rate	Death Rate	IMR
2005	22.3	9.5	75	23.8	7.6	58
2006	21.9	9.3	73	23.5	7.5	57
2007	21.5	9.2	71	23.1	7.4	55
2008	21.4	9	69	22.8	7.4	53
2009	21.0	8.8	65	22.5	7.3	50
2010	20.5	8.6	61	22.1	7.2	47
2011	20.1	8.5	57	21.8	7.1	44
2012	19.9	8.5	53	21.6	7.0	42
2013	19.6	8.4	51	21.4	7.0	40
2014	19.4	7.9	49	21.0	6.7	39

[Table 8.17]

Source: Sample Registration System Bulletin

### Birth Rate, Death Rate in Odisha and India, 2008-2014



[Figure 8.8]

Source: Sample Registration System Bulletin

People of Odisha suffer from multiple diseases. Details about the incidence of selected diseases in the State are given in Table 8.18. The increase in the number of

reported patients is probably due to a substantial increase in the number of people suffering from minor diseases, grouped under other diseases.

### Incidence of Selected Diseases in Odisha, 2014 and 2015

(in '000 numbers)

Sl. No.	Diseases	2014			2015		
		OPD	IPD	Total	OPD	IPD	Total
1	Acute Respiratory infectior	1,587.73	11.78	1,599.51	2,103.48	21.76	2,125.24
2	Acute diarrhea	611.11	45.73	656.84	694.62	72.95	767.57
3	Enteric fever	56.15	4.09	60.24	80.98	9.35	90.33
4	Pneumonia	34.68	3.76	38.44	35.38	7.03	42.41
5	Pulmonary TB	-	-	-	N.A.	N.A.	N.A.
6	Others	8.97	1.18	10.15	14.63	1.86	16.49
	Total	2,298.64	66.54	2,365.18	2,929.09	112.95	3,042.04

[Table 8.18]

Source: Department of Health and Family Welfare, Government of Odisha

Major causes of reported deaths in Odisha in 2014 and 2015 are presented in Table 8.18. During 2015, OPD patients are 2,929.09 thousand which was 2,298.64 thousand during 2014. Expectedly, out-patients constitute a large proportion of the total number of patients. Five major diseases of Odisha, also called “Panchavyadhi” are malaria, leprosy, scabies, acute respiratory infection and diarrheas, which account for more than 70 percent patient load. Number of indoor patients also increased during 2015 (66.54 thousand) in comparison to 2014 (112.95 thousand). The single most important cause of death is senility (35.12 percent), followed by heart disease (9.6 percent) and paralysis (3.59 percent). Life expectancy at birth in the State has increased from 58.6 years for males and 58.7 years for females during 1999-2003 to 62.52 years and 63.9 years respectively during 2006-10. As per the report of the Technical Group on Population Projection, the projected level of life expectancy at birth in Odisha will be 67.8 years for males and 71.6 years for females during 2021-25 as against 69.8 for males and 72.3 years for females at the national level.

### 8.2.3 Maternal Health and Family Welfare

The Maternal Mortality Rate (MMR) is the annual number of female deaths per one lakh live births from any cause related to or aggravated by pregnancy or its management. In case of Odisha the decline in MMR from 346 per lakh in 1997-98 to 222 per lakh in 2011-13 is moderate compared to corresponding figures at all-India level of 398 in 1997-98 to 167 in 2011-13. Ante-natal and post-natal care is necessary for healthy motherhood and safe child birth. The number of women and infants who receive these health services has been increasing over the years. The pregnancy burden of women can be judged from the General Fertility Rate (GFR) and the order of deliveries of eligible women.

General Fertility Rate (GFR) is the total number of births per 1000 women of reproductive age (15-49 years) in population per year. GFR in Odisha was less than the all-India rate, and has declined marginally from 83.9 per lakh in 2010 to 71.2 per lakh in 2012. Higher birth orders indicate longer reproductive span and associated child-bearing



problems. About one-fourth (23.9 percent) of deliveries in the State were of 3rd and higher orders in 2011 as against 28 percent at all India level. The proportion of such deliveries has recently declined from 34.8 percent in 2004 to 23.9 percent in 2011. Details of General Fertility Rate (GFR) and Total

Fertility Rate (TFR) of Odisha and India are reported in Table 8.19. The Total Fertility Rate is the average number of children that would be born per female of all females live to the end of their child bearing years and born children according to the age specific fertility rates for that area and period.

### Child Birth Status in Odisha

Year	GFR		TFR	
	Odisha	India	Odisha	India
2005	85.6	95.8	2.5	2.0
2007	89.5	98.6	2.4	1.9
2008	79.3	88.0	2.4	1.9
2009	78.1	86.5	2.4	1.9
2010	83.9	75.3	2.3	1.8
2011	79.3	88.0	2.2	1.7
2012	71.2	80.3	2.1	1.7

[Table 8.19]

Source: Department of Health and Family Welfare, Government of Odisha

Various family welfare programmes are in place in Odisha since 1956 with the objective of stabilizing population growth. Under this programme, the strategy has been to motivate eligible couples to limit their family size by

adopting various family planning methods. It seeks to promote responsible parenthood with focus on one child norm. Table 8.20 shows the progress of the family welfare programme in Odisha since 2005-06.

### Progress of Family Welfare Programme in Odisha

(In lakh number)

Year	Sterilizations	IUD insertion	Conventional Contraceptive users	Oral pill users	Medical Termination of Pregnancy	No. of equivalent Sterilization
2005-06	0.84	1.62	3.45	1.84	0.43	1.78
2006-07	0.94	1.63	3.62	1.99	0.42	1.89
2007-08	1.21	1.61	3.28	1.9	0.6	2.14
2008-09	1.22	1.37	3.02	1.8	0.44	2.01
2009-10	1.24	1.36	2.57	1.75	0.27	2.03
2010-11	1.4	1.5	2.17	1.74	0.26	2.21
2011-12	1.45	1.45	1.94	1.88	0.21	2.25
2012-13	1.48	1.34	1.44	1.63	0.2	2.19
2013-14	1.39	1.4	0.91	1.4	0.22	2.06

Year	Sterilizations	IUD insertion	Conventional Contraceptive users	Oral pill users	Medical Termination of Pregnancy	No. of equivalent Sterilization
2014-15	1.05	1.75	0.85	1.55	0.2	1.86
2015-16	1.17	1.95	1.04	1.63	2.42	2.06

[Table 8.20]

Source: Directorate of Health and Family Welfare, Odisha, Bhubaneswar

## 8.2.4 New Initiatives

### Reproductive and Maternal Health

- 2.06 lakh sterilization have been done from 2005-06 to 2015-16.
- All 43, 530 ASHAS trained through a well-crafted module. Skilled Attendant at Birth (SAB) training was given to the Paramedics and AYUSH doctors to augment the institutional delivery.
- 69 hospitals are functioning as First Referral Unit (FRU) institutions out of 95 for providing comprehensive emergency obstetric care.
- State has target of 1,190 delivery points of which 580 institutions are functional at present and 610 are promising. Out of 610, 20 delivery points have improved their delivery status.
- Total 4.46 crore beneficiaries benefitted under “Janani Surakshya Yojana” (JSY) from 2005-06 to February 2016. Due to JSY the institutional delivery has increased from 28 percent in 2005 to 69 percent in February, 2016 (HMIS) against expected delivery. “Janani Sishu Surakshya Karyakrama” (JSSK) has been implemented in Odisha to provide free drug, blood, diagnosis, diet and referral services to all pregnant women and sick new born and infants (upto 1 year).
- Maternal Death Review (MDR) Committees are formed at State and District level to review the maternal death.

During 2015-16, 722 numbers of maternal death are reported.

- Village Health and Nutrition Day (VHND) is being organized every Tuesday / Friday at village Anganwadi Centres. So far, 4,54,464 VHND sessions held out of 4,66,301 planned (97 percent ) during 2015-16.
- Standardization of labour room as per MNH tool kit has been undertaken in 18 districts under DAKSHATA Programme.
- Maternity Waiting Homes (Maa Gruha) are established near to delivery points to accommodate the expected delivery cased from difficult geographical pockets at least before 7-10 days of Expected Date of Delivery (EDD). So far 49 MWH are operational out of 62 targeted in Odisha.
- 420 (108 Ambulances) and 408 (102 Ambulances) are operational to provide free transport services for all medical treatment.

### 8.2.5 Child Health

The status of child health is indicated by the Infant Mortality, nutritional status of children and prevalence of diseases among them.

#### Child Malnutrition

Malnutrition is a major public health and nutrition challenge faced by many developing states including Odisha. Malnutrition is a consequence of several social and economic factors like i) lack of education, ii) inadequate health care services and iii) ill-informed cultural behavior and there are three indices, i)

weight forage ii) height for age and iii) weight for height. The detail malnutrition status of 0-3 year and 3-6 year children in Odisha are given in Table 8.21, 8.22 and Figure 8.9. The percentage of severely malnourished between the age group of 0-3 year's children was 5.32

percent of total children during 2011-2012, which declined to 1.29 percent during 2015-16. Similarly between 3-6 years the same percentage was declined from 3.76 during 2011-2012 to 0.86 during 2015-16.

**Nutritional Status of 0-3 Years Children in Odisha (As per WHO Growth Standard)**

Year	Total children	Children weighed	% out of Col.2	Normal	% out of col.3	Moderately Undernourished	% out of col.3	Severely Undernourished	% out of col.3	Under Weight	% out of col.3
2011-12	1826524	1724247	94.40	1083961	62.87	548901	31.83	91701	5.32	640602	37.15
2012-13	2479657	2359089	95.14	1625963	68.92	661520	28.04	73967	3.14	735487	31.18
2013-14	2442569	2356350	96.47	1702765	72.26	602477	25.57	51108	2.17	653585	27.74
2014-15	2404752	2328313	96.82	1744774	74.94	545301	23.42	38585	1.66	583886	25.08
2015-16	2327318	2229479	95.80	1742863	78.17	457934	20.54	28682	1.29	486616	21.83

[Table 8.21]

Source: W and CD Department, Government of Odisha

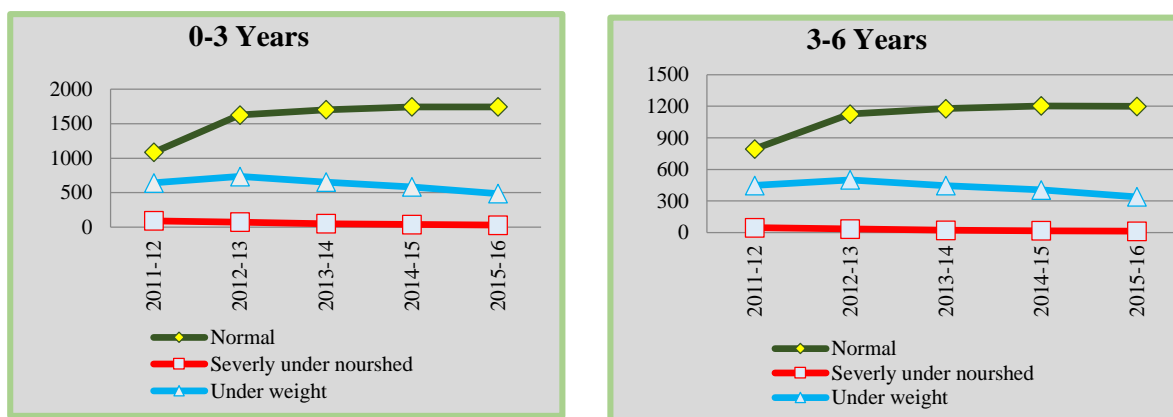
**Nutritional Status of 3-6 Years Children in Odisha (As per WHO Growth Standard)**

Year	Total children	Children weighed	% out of Col.2	Normal	% out of col.3	Moderately Undernourished	% out of col.3	Severely Undernourished	% out of col.3	Under Weight	% out of col.3
2011-12	1351103	1242443	91.96	793771	63.89	401268	32.30	46740	3.76	448008	36.06
2012-13	1745041	1626312	93.20	1124960	69.17	467595	28.75	33942	2.09	501537	30.84
2013-14	1716557	1622362	94.51	1176909	72.54	423213	26.09	22240	1.37	445453	27.46
2014-15	1692880	1609291	95.06	1203774	74.80	388526	24.14	16991	1.06	405517	25.20
2015-16	1704432	1538894	90.29	1198707	77.89	326890	21.24	13297	0.86	340187	22.10

[Table 8.22]

Source: W and CD Department, Government of Odisha

**Nutritional Status of Children in Odisha, 2011-12 to 2015-16**



[Figure 8.9]

Source: W and CD Department, Government of Odisha

### Supplementary Nutrition Programme (SNP)

With a view to improving health and nutritional status, children in the age group of 6 months to 6 years, pregnant women and lactating mothers are given nutritional support for 300 days a year. This is a centrally sponsored scheme with cost sharing between the Centre and State in the proportion of 50:50. Each beneficiary is given nutritious food. From the year 2013, the ration costs under this programme have been revised upward to Rs.6, Rs.9 and Rs.7 for normal, mild and moderately malnourished children (6 months to 3years), severely mal-nourished children and pregnant and lactating mothers respectively. The SNP Programme has been implemented by 71,306 AWC and Mini AWCs covering 45.17 lakh beneficiaries during 2015-16. Rs.843.68 crore has been provided to run the scheme.

### Immunization

Six vital diseases, viz. poliomyelitis, diphtheria, pertussis, tetanus, tuberculosis and measles are major causes of child mortality, disabilities, morbidity and related malnutrition. In order to protect children (below 6 year) from these diseases and pregnant women against tetanus, an immunization programme has been implemented in the state as per national immunization schedule. The immunization programme has been further strengthened through ICDS. The National Pulse Polio programme has also been implemented throughout the State with the goal of making the state Polio free by immunizing infant and children aged 0-5 years. During 2015-16 (up to March, 2016), 5.91 lakh children have been immunized against DPT 6.08 lakh against Polio, 4.85 lakh against BCG and 6.34 lakh against measles. Besides, 5.99 lakh pregnant women have been covered under TT immunization. (Table 8.23).

#### Progress of Immunization Programme in Odisha

Programme	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
TT (PW)	7.83	7.67	7.73	7.14	7.55	7.32	7.30
DPT	8.10	7.17	7.27	7.58	7.01	7.23	5.33
Polio	8.00	7.2	6.61	7.44	7.03	7.24	6.88
BCG	8.19	7.85	8.02	7.40	7.30	7.34	7.03
Measles	7.99	6.98	7.08	7.57	6.86	7.08	6.85
DT	9.27	5.68	5.53	6.39	6.19	6.24	6.46
TT (10 Yrs)	8.77	8.74	7.62	7.78	6.78	6.78	6.50
TT (16 Yrs)	8.14	8.15	7.22	7.77	6.77	6.58	6.16

[Table 8.23]

Source: Directorate of F and W, Bhubaneswar, Odisha

### Nutrition and Health Education (NHED)

NHED is a key element of ICDS, comprises information on basic health, nutrition, child care and development, infant feeding practices, utilisation of health services, family

planning and environmental sanitation. This is imparted through counselling sessions during home visits on fixed immunisation days and in gatherings of women's groups and mothers' meetings in the area. All women in the age

group of 15-45 year are covered under this programme so that they can look after their own health, nutrition and development needs as well as those of their children and families. During 2015-16 (up to March, 2016), about 9.19 lakh women per month have been covered under this NHED.

### Health Checkups

This includes: (i) ante-natal care of expectant mothers, (ii) post-natal care of nursing mothers and care of newborns and (iii) care of children under six year of age. Various health services provided by AWWs and PHC staff include regular health check-ups, recording of weight, immunization, management of malnutrition, treatment of diarrhea, de-worming and distribution of simple medicines. At Anganwadi centres, children, adolescent girls, pregnant women and nursing mothers are examined at regular intervals by health functionaries like ASHA, and Auxiliary Nurse Midwife who diagnose minor ailments and distribute medicines. They provide link

between the village and PHC. During 2015-16, (up to March, 2016) 21.71 lakh children, pregnant women and nursing mothers were covered under the programme which shows a growth of 5.27 percent over the previous year. Total children cover 77 percent of the benefits of the programme.

### Referral Services

During health check-ups and growth monitoring, the identified sick or malnourished children in need of prompt medical attention are provided referral services. AWW have been oriented to detect disabilities in young children. They enlist all such cases in a special register and refer them to the Medical Officer. The effectiveness of this service depends on timely action, co-operation from health functionaries and willingness of families to avail of these services. In 2015-16 (upto March 2016), 6.33 lakh children, pregnant women and nursing mothers were provided referral services through AWCs.

### New Initiative for Child and Adolescent Health

- 781 New Born Care Corner are functional at delivery points for preventing mortality and brain damage immediately after birth.
- 30 Sick New Born Care Units (SNCU) and 49 New Born Stabilisation Units (NBSU) are operational in Odisha.
- During 2015-16 till December 2015, 34,230 children admitted in SNCU and 24,248 (71 percent) new born are discharged after treatment.
- 45 Nutrition Rehabilitation Centre (NRC) are being established in district and sub-district levels to take care of the malnourished children.
- During 2015-16, till December 2015, 5,056 children admitted in NRC and 3,693 (75 percent) children are discharged with 15 percent weight gain.
- 8,02,029 malnourished children treated through Pustikar Diwas from 2009 to 2016.
- 10 bedded Kangaroo Mother Care (KMC) units have been established in 5 districts.
- 640 Mobile Health Teams are formed under Rastriya Bal Swasthya Karyakram (RBSK) for screening, treatment, referral of children identified with defects, deformity or diseases. More than 60 lakh school children have been covered under the scheme.

### Rastriya Kishore Swasthya Karyakrama (RKSK)

- 148 Adolescent Friendly Health Centres (AFHC) designated as “SRADHA” clinics has been established to provide services for adolescent girls and boys.
- Peer Education Programme is a community based component of RKSK. 4700 out of 23,600 planned peer education have been identified till March, 2016.
- Integrated Counseling Centres have been established in the areas of Adolescent Health, ANC and PNC, IYCF and GBV.
- 4 no. of one stop Crises Centres have been established at Puri DHH, Sambalpur DHH, Capital Hospital and MKCG Hospital.

#### 8.2.6 Medicine Systems and Hospitals

Healthcare in the State is mostly provided through public allopathic institutions. However, alternative health systems are also supported by the State.

##### System Load of Government Hospitals

The system load of the healthcare infrastructure can be assessed from Table 8.24. Indicators of system load in Government

hospitals have remained the same between 2005-06 to 2014-15. There are 8.54 doctors per lakh population and less than 4 beds per 10,000 populations. However, the proportion of patients in the total population of the State is 81.63 percent during 2014-15 whereas it was 76.04 percent during 2013-14. Bed occupant rate was 151.80 while bed turnover rate stood at 277.03 during 2014-15.

#### System Load in Government Hospitals in Odisha

Year	Doctors per lakh population	Beds per 10,000 population	In patient to total population	Outpatient to total population	Total patient to total population	Bed turnover rate	Bed occupant rate
2005-06	12.88	3.96	6.61	64.2	70.82	166.90	91.40
2006-07	12.71	3.91	6.59	64.01	70.61	168.60	92.40
2007-08	12.55	3.86	6.55	55.00	61.56	169.80	93.00
2008-09	12.39	3.81	7.30	58.04	65.34	191.50	104.93
2009-10	10.56	3.76	8.78	60.62	67.41	233.39	127.84
2010-11	8.24	3.71	9.45	64.42	73.88	254.26	139.32
2011-12	10.31	3.92	10.22	65.79	76.02	260.48	142.73
2012-13	9.75	3.87	8.28	60.37	68.65	213.54	117.01
2013-14	9.96	3.83	10.14	65.91	76.04	264.58	144.97
2014-15	8.54	3.75	10.41	71.21	81.63	277.03	151.80

[Table 8.24]

Source: Department of Health, Odisha

### Allopathic Medicine

In 1951, medical and healthcare facilities in the State were provided through a network of 365 Government medical institutions with 3,112 hospital beds and 1,083 doctors. The doctor-population ratio stood at 1:13,500. By the end of 2015-16, 1,944, medical institutions, comprising 141 hospitals, 377 community health centers, 1,227, primary health centers and 199 Mobile Health Units (MHU) were functional in the public sector with 16,537 beds. In addition, 1,771 numbers of private sector medical institutions with 15,977 beds are functioning in the state as on 2015-16. Thus 3,715 allopathic medical institutions provided medical care in the State with 32,514 numbers of beds. There are 6,688 sub-health centers in the public sector. At the end of 2015-16, there were about 6 medical institutions per lakh population and one medical institution per 59 Sq. km. The bed-population ratio is 1:1,388. District-wise medical institutions and hospital beds, in both public and private sectors in Odisha, are given at Annexure 8.2. While public health institutions are spread all over the State, private institutions are located mainly in cities. Out of 1,771 private institutions, highest number of 375 institutions are running in Cuttack district, (21 percent) followed by Khordha 254 (14 percent), 849 (8 percent) in Kalahandi district. Boudh district has only three private medical institutions. There are no private medical institutions in Deogarh district.

### Alternative Systems of Medicine

AYUSH system of medicine assumed significance with the emergence of lifestyle related diseases. The people of Odisha prefer AYUSH as the system of treatment for their indigenous, economical and gentler therapies for cure of diseases and improving quality of life. At present 5 ayurvedic hospitals, 4 homeopathic hospitals, 619 ayurvedic dispensaries, 561 homeopathic dispensaries and 9 unani dispensaries with 593 beds and 791 doctors are providing AYUSH health care facilities in the State. During 2015-16, 98.72 lakh patients were treated in these hospitals and dispensaries. There are 791 AYUSH doctors in the state in 2015-16. There is only one drug testing laboratory in the state. Panchakarma treatment of Ayurveda has been provided in Government hospital in Puri, Bhubaneswar and Berhampur. Ayush health camp are being organised by the principals and District Ayurveda and Homeopathic Medical Officers in the district and village level. The detailed picture is given in Table 8.25. Steps are being taken for construction of Ayush educational institutions as per CCH/CCIM norm.

It is proposed to set up of Central Research Institute with 100 bedded hospital for Yoga and Naturopathy at Binjhagiri, Bhubaneswar during 2015-16. International Yoga Day has been organized on 2<sup>nd</sup> June 2015 at Kalinga Stadium, Bhubaneswar.

#### Government Ayurvedic and Homoeopathic Medical Institutions and Services in Odisha

Year	Type of institution	Hospitals	Dispensaries	Doctors in position	Bed	Patient treated (in lakh)
2007	Homoeopath	4	560	468	125	78.7
	Ayurvedic	5	619	563	418	73.4
	Unani	-	9	7	-	1.09

Year	Type of institution	Hospitals	Dispensaries	Doctors in position	Bed	Patient treated (in lakh)
2008	Homoeopath	4	590	488	125	75.71
	Ayurvedic	5	619	558	418	72.35
	Unani	-	9	6	-	1.13
2009	Homoeopath	4	560	475	125	82.7
	Ayurvedic	5	619	603	418	69.07
	Unani	0	9	6	0	1.02
2010	Homoeopath	4	561	475	125	71.56
	Ayurvedic	5	619	603	468	65.99
	Unani	0	9	6	0	1.15
2011	Homoeopath	4	561	401	125	56.34
	Ayurvedic	5	619	577	468	58.98
	Unani	-	9	5	-	0.80
2012	Homeopath	4	561	338	125	48.53
	Ayurvedic	5	619	497	468	55.39
	Unani	0	9	5	-	0.77
2013	Homeopath	4	561	319	125	44.94
	Ayurvedic	5	619	483	468	56.58
	Unani	0	9	5	0	0.62
2014	Homeopath	4	561	304	125	44.96
	Ayurvedic	5	619	483	468	54.04
	Unani	0	09	04	0	0.63
2015	Homeopath	4	561	304	125	41.72
	Ayurvedic	05	619	483	468	51.99
	Unani	Nil	09	04	Nil	5.01

[Table 8.25]

Source: Directorate of AYUSH, Odisha, BBSR

### Employees State Insurance (ESI) Scheme

This is an integrated multi-dimensional health insurance and social security scheme, being implemented in the State since 1960. It is one of the most effective and sustainable social security measures available to workmen employed in industrial and commercial establishments of varying nature and sizes. At present, medical care is provided to 3, 99,580 insured persons and their dependents through

5 ESI hospitals and 40 ESI dispensaries in 19 districts. There are 297 beds and 132 doctors out of total sanctioned strength of 200 engaged to provide medical services to employees. Besides, there are two annex wards and one 50 bed ESI Model hospital at Rourkela run by ESI Corporation. The ESI Corporation has prescribed an expenditure ceiling of Rs.2,150 on medical care per insured person per annum from 1st April, 2015. It is shared between ESI



Corporation and the State Government in the agreed ratio of 7:1 and the expenditure in excess of the ceiling is entirely borne by the State Government. During 2015-16 about 9.60 lakh patients including 5,842 indoor patients were treated in the ESI hospitals/dispensaries. Besides, immunization and family welfare programmes are also performed in these hospital/dispensaries. The details are given in Table 8.26. One AIDS cell has been set up at the ESI Directorate to implement AIDS control programme, which is fully financed by

National AIDS Control Organization (NACO). AIDS awareness programmes are being conducted in different industrial areas. One STD laboratory and clinic functioning in ESI hospital, Bhubaneswar since 2004-05 has been upgraded to VCTC. As per the guidelines of Odisha Pollution Control Board hospital waste management in ESI hospital at Choudwar (100 beds) and Bhubaneswar (50 beds) has been entrusted to M/s Saniclean (P) Ltd. on a contract basis since 2004.

### Family Welfare Programme and Immunisation Programme Conducted under ESI Scheme in Odisha

(in numbers)

Name of the programme	Achievement During						
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
<b>Family Welfare Programme</b>							
Vasectomy	1	13	14	12	14	14	-
Tubectomy	57	65	72	57	55	3	48
IUD	115	72	48	49	58	45	40
MTP	115	100	65	80	117	53	62
Oral Pills	3361	9805	7445	4685	4811	73	4331
Nirodh	11463	3320	11292	10702	11894	3565	9678
<b>Immunisation Programme</b>							
BCG	611	1122	1242	2232	2099	1881	2099
Polio	3779	7285	6239	8828	9875	10201	9805
DPT	2080	5663	6053	10219	10722	10378	10220
T. Toxoid	8608	11787	10089	10052	11198	10951	12315
Measeals	736	728	NA	701	695	590	614

[Table 8.26]

Source: Directorate of ES., Odisha, BBSR

### 8.2.7 Government Health Programmes and Projects

#### Revised National Tuberculosis Control Programme (RNTCP)

The Revised National Tuberculosis Control Programme is implemented in Odisha in 1997 with the objective to detect 70 percent of

infectious sputum positive TB cases and cure at least 85 percent of them and provide free and domiciliary treatment to the patients detected under Directly Observed Treatment Short Course Chemotherapy (DOTs) strategy. The Programme is implemented as per the Technical operational and financial guidelines

of Revised National TB Control Programme (RNTCP) with DOTS (Directly Observed Treatment Short Course Chemotherapy) strategy. This programme has been implemented through 31 implementing units, 159 TB units and 584 Designated Microscopy Centers (DMC). In addition, 50,514 DOT centers are functioning under the programme. The Anti-TB demonstration and Training Centre (ATD and TC), Cuttack conducts External Quality Assessment (EQA) to maintain good quality sputum microscopy. The Intermediate Reference Laboratory (IRL) has been established at ATD and TC (Anti-TB Demonstration and Training Center), Cuttack for culture and drug susceptibility test to diagnose MDR-TB patients since 2009. One laboratory at Regional Medical Research Centre, Bhubaneswar has been established as National Reference Laboratory (NRL) by Government of India for diagnosis of MDR-TB. It has been accredited for culture and Drug susceptibility Test for solid culture supporting for follow up cultures from 7 districts of Odisha. Since inception of RNTCP till 2015, a total of 6,48,917 TB cases have been detected and treated. Total 5,11,034 cases have been cured and successfully completed treatment. Total TB patients put treatment in 2015 in 45, 814 with treatment success of 87 percent. In the 4th quarter of 2013, the annualized new sputum positive cases detection rate of Odisha was 55 percent against the norm of 70 percent and the success rate 86 percent as against the norm of 85 percent. "NIKSHAY" an online notification, recording and reporting system has been implemented in the state to register TB

surveillance in both private and Government sectors. Till date 72,541 patients from Government and 1,992 from private sector have been entered in the "NIKSHAY" portal. TB HIV intensive package is implemented in all districts since 2010. Drug Resistant TB (DR.TB) centers established at S.C.B medical college, Cuttack, Burla and MKCG medical college, Berhampur to provide indoor treatment to the diagnosed MDR-TB patients. The 4th DRTB centre at DHH, Koraput is under process of establishment and the 5th and 6th DRTB center have been sanctioned at DHH, Mayurbhanj and Sundargarh respectively. Additional 125 STS posts have been sanctioned for decentralized and monitoring supervision of treatment services from Block level to the patients.

#### **National Programme for Control of Blindness (NPCB)**

This programme was introduced in the State in 1976 as a World Bank assisted project to reduce prevalence of blindness from 1.0 percent to 0.3 percent of population (2006-07 survey). At present, the programme functions with full central assistance. During 2015-16, 78,566 cataract operations were performed as against the target of 1,57,300. Besides, the school eye screening programme is also operational in the State. During 2015-16, about 6.20 lakh students were screened and 0.40 lakh students were detected with refractive error. 30,950 spectacles were distributed freely among the detected students. The achievements made under the programme during 2008-09 to 2015-16 are given in Table 8.27

## Achievement under NPCB in Odisha

Item	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Student screened	419274	564225	388703	467368	421462	445585	620103
Students detected with refractive error	19922	22906	19705	28889	33284	34527	40255
Free spectacles distributed	9186	11624	11787	17586	21186	25176	30950
Health worker trained	-	309	-	-	-	-	-
No. of teachers	556	277	316	343	3500	31	-

[Table 8.27]

Source: NPCB

## New Initiatives

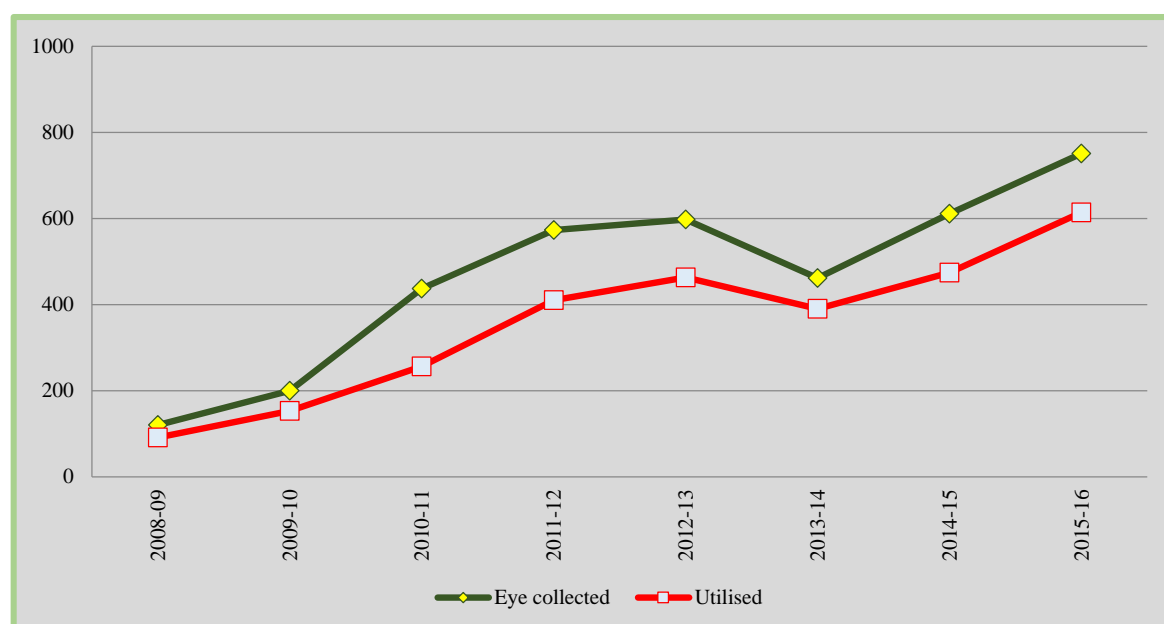
- Strengthening of 75 Vision Centre and NGO Eye Unit.
- Construction of two numbers of 10 bedded Eye Ward at SDH.
- Mobile Ophthalmic Unit at DHH, Sundargarh
- Nine Eye Donation Counselors posted in Eye Banks and Eye Donation Centres.

## Eye Donation

Eye donation has been popularized and implemented in the State through different medical colleges and 9 private organizations. Figure 8.10 shows an increasing trend of eyes

collected and utilized since 2008-09. 751 eyes are collected and 614 eyes are transplanted during 2013-14. The figure depicts that the eye collection in the state has increased significantly by 5 times from 2008-09 to 2015-16.

## Eye Donation: Collected and Utilized in Odisha, 2008-09 to 2015-16



[Figure 8.10]

Source: NPCB

### **National Iodine Deficiency Disorders Programme (NIDDCP)**

IDD Monitoring laboratory has been established during 2014-15 in the state. The main objective of the programme is to supply iodized salt in place of common salt and identify the iodine deficiency by conducting safely every 5 years. IDD survey is periodically conducted in the State to assess its prevalence. By the end of 2009, twenty districts have been surveyed and three districts were resurveyed. Out of the 23 surveyed districts, 17 districts are taken as endemic areas of Iodine Deficiency related disorders having goiter prevalence more than 10 percent.

### **National Leprosy Elimination Programme (NLEP)**

The programme NLEP is now operations in the state supported by WHO, World Bank and other international agencies like Lepra India, HOINA and the German Leprosy Relief Association. The objective of the programme is to eliminate leprosy by detecting all leprosy cases and to bring them under “Multi Drug Therapy (MDT).” Elimination of leprosy means to bring down the prevalence rate of leprosy to one or less than one per 10,000 populations. As a result of successful implementation of the programme, the prevalence rate of leprosy in the State came down from 121.4 per 10,000 population in 1982-83 to only one in 2015-16 and the Annual New Case Detection Rate (ANCDR) was 210 per 1, 00,000 population during 1982-83 come down to 24.4 during 2013-14 and 16.55 by the end of January 2015. To reduce disability burden due to leprosy by strengthening Disability prevention and Medical Rehabilitation (DPMR). 102 Blocks Leprosy Control Programme have been implemented in rural belt and it also covers 22

urban areas. State has also provided 6000 number of MCR foot wears to the needy. International Federation on Anti Leprosy Organisation (ILEP) is also providing additional support for successful implementation of DPMR programme in Odisha. Up to January 2015, under treatment cases were 4,461 by the end of 2013-14 the treatment completion rate was 97.8 percent which was 98.09 during 2012-13. Up to February 2016, reconstructive surgeries have been made on 338 deformed Leprosy cured persons in Government health institution and one NGO named Mission Hospital Bargarh. During 2016, the grade II disability was 158 which was 254 during 2014-15. During 2015-16, 4,000 ASHAs have been given training in leprosy. Besides, 25 medical and para-medical staff has been provided orientation and re-orientation training to improve the quality of programme management in the State.

### **National Vector Borne Disease Control Programme (NVBDCP)**

Out of the six vector borne diseases (Malaria, Lymphatic Filariasis, Japanese Encephalitis, Kala azar, Chikungunya and Dengue) under the Indian National Vector Borne Disease Control Programme, Malaria control component takes the major share due to the sheer magnitude of the problem. In Odisha, 66.08 lakh fever cases are screened for malaria during 2015 and 4.37 lakh found positive. The number of Malaria positive cases per 1000 population was 9.97 during 2015 which was 9.08 during 2014. Indoor Residual Spray (IRS) operation for the people residing in high endemic areas twice in a year i.e. May and September. Around 73 lakh high risk population residing in 21 malaria endemic districts of the state are protected by Indoor Residual Spray (IRS). Long Lasting

Insecticidal Nets (LLIN) is the recent intervention measure in malaria control programme. By 2015, 44 lakh family size LLIN have been distributed in different phases in high malaria endemic areas of the State. To protect the expectant mothers state has initiated a scheme “Mo Mashari”. By 2014, 6.75 lakh have been distributed to the pregnant women in 12 districts in different phases. In Odisha Dengue is endemic in all districts. Out of 12,632 dengue suspected samples 2,447 have been found positive during 2014-15. Death due to dengue during 2015 is only 2. In 2015 out of 81 blood samples 46 positive chikungunya cases were found in Odisha. The most of the cases found positive from Shanti Nagar (17) and Trinath Basti (6) in Khordha district, Kudipadar (6) in Patrapur Block, Girisola village (12) and Kolipentha village (3) of Chikiti CHC of Ganjam district and Binjharpur (1) and Balichandrapur (1) of Jajpur district. The case upsurge in noticed

especially in the urban and industrial areas of the State which further expands to rural areas.

Regular trainings are conducted for specialists for management of complicated dengue cases in different hospitals. For Elimination of Lymphatic Filariasis (ELF) 10 districts have been covered under Mass Drug Administration (MDA) in 2015. Eight districts such as Malkangiri, Koraput, Nawarangpur, Nuapada, Gajapati, Puri, Balsore, and Kendrapara are being studied under Transmission Assessment Study (TAS) through WHO protocol. Morbidity Management, Hydrocele operation and care of lymphedema are the other activities that are dealt under ELF programme. Details of Malaria positive and PF in Odisha are given in Table 8.28. During 2015 there are 34 positive cases of Japanese Encephalitis reported from Mayurbhanj (17), Jajpur (12), Ganjam (1), Sonapur (1), Kendrapara (1) and Khordha (2) districts, all cases are confirmed by RMRC, Bhubaneswar.

### Malaria Epidemiological Situation in Odisha 2004 to 2015

Year	BSE / BSC	Positive cases	PF	Death	ABER	SPR	Pf %	API
2004	4369409	416771	351737	283	11.32	9.54	84.40	10.79
2005	4848624	396573	342658	255	12.36	8.18	86.40	10.11
2006	4912657	372710	324893	257	12.33	7.59	87.17	9.35
2007	4945551	371819	323150	221	12.22	7.52	86.90	9.19
2008	5029677	375430	329631	239	12.23	7.46	87.80	9.13
2009	5015489	380904	336047	198	12.00	7.59	88.22	9.12
2010	5240458	395651	350428	247	12.30	7.55	88.57	9.29
2011	4650799	308968	281577	99	11.13	6.41	91.47	7.13
2012	4609274	262842	244503	79	10.81	5.70	93.02	6.16
2013	5078132	227990	208488	67	11.76	4.49	91.45	5.28
2014	6352249	395004	342249	89	14.60	6.22	86.64	9.08
2015	6608453	436850	369533	80	15.08	6.61	84.59	9.97

[Table 8.28]

Source: Directorate of Health Services, Odisha

### National AIDS Control Programme (NACP)

The district wise incidences of HIV/AIDS in the State as on March 2016 is given in Annexure 8.3. The highest number of HIV-positive cases (13,157) has been detected in Ganjam district, followed by Cuttack (5,025). Boudh (44) is credited with the minimum number of positive cases. Out of 1,484 deaths

due to AIDS, the highest number was registered in Ganjam (459) followed by Koraput (151). No death case has been recorded in Sonepur district so far. Table 8.29 depicts the top and bottom five districts in Odisha according to incidence of death due to AIDS during 2016.

#### Top and Bottom Five Districts in Odisha according to Incidence of Death due to AIDS, 2016

Top 5 districts	Bottom 5 districts
Ganjam (459), Koraput (151), Bhadrak (82), Kendrapara (74) and Angul (72)	Sonepur (0), Deogarh (2), Boudh (4), Gajapati (6) and Keonjhar (6)

[Table 8.29]

Source: Directorate of Health Services, Odisha

Table 8.30 indicates HIV-positive persons in the State by age, sex and mode of transmission by March, 2016. At present NACP-IV (2013-

17) has been implemented to prevent new infections, particularly among high risk groups.

#### Number of HIV-positive Persons by Age, Sex and Mode of Transmission (2002-15) March, 2016

Sl. No.	Particulars	Male	Female	Total	Percentage
A. Age Group					
i.	Less than 14	1372	1098	2470	7%
ii.	15-24	1680	1741	3421	10%
iii.	25-49	18683	9280	27963	78%
iv.	50+	1502	497	1999	6%
v.	Not specified	44	20	64	0%
vi.	ANC	0	1955	1955	
	Total	23281	14591	37872	
B. Routes of Transmission					
i.	Sexual	20445	11022	31467	88%
ii.	Blood/Blood products	287	151	438	1%
iii.	Infected syringes and needles	571	49	620	2%
iv.	Parent to child transmission	1180	940	2120	6%
v.	No. specified	707	387	1094	3%
vi.	ANC	0	1955	1955	
	Total	23281	14591	37872	

[Table 8.30]

Source: Directorate of Health Services, Odisha

Infrastructure and human resources under the programme have been strengthened to develop a nation-wide Strategic Information Management System (SIMS). In order to

institutionalize services at district and sub-district levels, 232 Integrated Counseling and Testing Centres and 202 facility integrated ICTCs are functioning in the State. In Odisha,

more than 78 percent of the total affected populations are in the age group of 25-49 years and 38 percent are female. There are 7 high vulnerable districts have been categorized as “A” and “B” according to HIV sentinel surveillance as follows.

<b>“A” Category</b>	Angul, Bolangir, Bhadrak and Ganjam
<b>“B” Category</b>	Balasore, Khordha and Koraput

More than 87 percent of infections are occurring through sexual transmission. District AIDS Prevention and Control Unit (DAPCU) are functioning in 7 high vulnerable districts.

#### **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS)**

NPCDCS was launched in the State in the financial year 2010-11 at Nuapada districts of Odisha with a goal is to reduce overall morbidity and mortality due to NCDs by 25 percent by 2025 through behavior and life style changes. Then the programme was extended to 19 districts by the end of 2015-16. During 2016-17 it has been proposed to extend the programme in remaining 10 districts.

NCD cells at State Directorate and 16 district headquarters have been established except in Jajpur, Kendrapara, Jharsuguda and Balasore by the end of March, 2016. This programme extended to 185 CHCs / SDH of 10 districts taken up during 2014-15 with provision of one counselor only.

#### **National Programme for Health Care of Elderly (NPHCE)**

NPHCE was launched in the State in 2011-12, first from Nuapada district, then extended to Bolangir, Koraput, Nawarangpur and Malkangiri districts of Odisha. During, 2015-16 this programme was further extended to 3

There are concentrated efforts across the State to facilitate people living with HIVs access to different social benefit schemes for (PLHIVs). Through Madhu Babu Pension Yojana (MBPY) for People Living with HIV/AIDs (PLHIVs), 22,160 beneficiaries have been covered. 252 have been benefited from Mo Kudia Yojana, 984 benefited from Antodaya Anna Yojana and 472 have been receiving free ration.

Out of total allocation of Rs.3469.90 lakh, an amount of Rs.2981.40 lakh has been utilized for HIV / AIDS Control as on 31.03.2016.

new districts namely Khordha, Mayurbhanj and Sambalpur. Integrated 10 bedded geriatric wards are functioning in 5 implementing districts with OPD facilities, Physiotherapy Unit, Separate Registration Counter with all mobility support, PT Units with equipment and appliances.

#### **National Tobacco Control Programme (NTCP)**

NTCP is evolved as national programme in 2007-08. Odisha is included in the second phase where District Tobacco Control Cell at Cuttack and Khordha. Another 11 districts were included under this programme till 2015-16. The main objective of the programme is to train health and social worker, NGOs, school teacher, enforcement officers for control of tobacco user.

#### **8.2.8 Draft National Health Policy 2015**

Ministry of Health and Family Welfare, Government of India have placed the Draft National Health Policy 2015 before public domain for suggestions and feedback. The primary aim of the Policy is to inform, clarify, strengthen and prioritize the role of the Government in shaping health systems in all

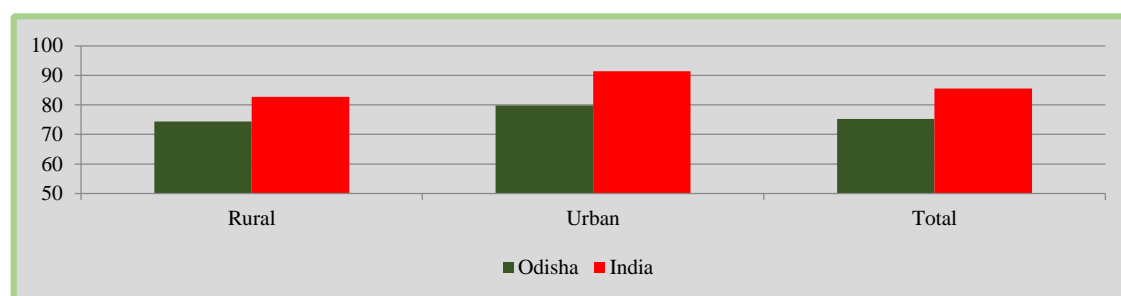
its dimensions- investment in health, organization and financing of healthcare services, prevention of diseases and promotion of good health through cross sectorial action, access to technologies, developing human resources, encouraging medical pluralism, building the knowledge base required for better health, financial protection strategies and regulation and legislation for health.

### 8.3 Water Supply and Sanitation

Safe drinking water supply and sanitation facilities are the essential ingredients to

improved quality of life of people. The subsector not only remains a public health issue but also supplements to measure the human development index of the region. Odisha had a mixed response in the development of these health infrastructures in terms of access and delivery system. Figure 8.11 analyses access to safe drinking water (Taps/hand pump and tube well) in Odisha and India as per the 2011 census. In both rural and urban areas, the coverage in Odisha remained lower than national averages.

**Household Access to Safe Drinking Water in Odisha and India, 2011**



[Figure 8.11]

Source: Census, 2011

However, Odisha lags far behind the national averages as regards access to toilet facilities. As per 2011 population census out of total 96.6 lakh households in the state 78.0 percent household do not have any latrine within their premises and 76.6 percent household still in habit of open defecation. The corresponding figures for SC and ST household stood at 66percent and 77.4 percent respectively. This is more acute in rural areas. As per 2011 census, out of total 96.61 lakh households in the state only 13.8 percent households using Tap water while 19.5 percent using well and 61.5 percent using Hand pump /Tube well for drinking water purposes. In case of SC household the corresponding figures stood at 41.3 percent, 8.3 percent and 47.3 percent respectively and in case of ST households, these figures were 24.8 percent, 21.1percent and 47.0 percent respectively.

Besides, out of total 96.61 household, 22.4percent household have drinking water sources in their own premises while 42.2 percent household are using water sources near their premises and 35.4 percent away from their household.

#### 8.3.1 Rural Water Supply & Sanitation

Safe drinking water is a basic necessity of human being. The “Rural Water Supply Programme” in the State has thus been included to provide portable water supply for the people of rural areas with the launch of NRDWP (National Rural Drinking Water Supply Programme) from April 2009. Previously it was ARWSP (Accelerated Rural Water Supply Programme) under “Rajiv Gandhi National Drinking Water Mission”, in order to emphasize on ensuing sustainability of water availability in terms of portability,



adequacy, convenience, affordability and equity with decentralized approach. National Rural Drinking Water for all, at all times in rural areas.

By the end of April 2016 there were 10,438 PWS schemes and 4,32,309 spot sources were installed in the State out of which 4,19,364 tube wells and 12,945 are sanitary wells. During 2015-16, total 391 PWS scheme were commissioned and 21,126 spot sources (both tube well and sanitary well) had been installed out of which 20,801 are tube wells and 325 are sanitary wells. This spot sources of drinking water supply also include 1,245 in schools, 1,353 in Anganwadis and 240 number of spot sources in different schools like IAP, Biju KBK, and WODC during 2015-16. As per IMIS Report, there were 1,57,158 rural habitation in the state as on 1st April 2015 of

which 61,872 were partially covered habitation. During 2014-15 priority was given to quality affected habitation and partially covered habitations. Accordingly 519 quality affected habitations have been provided with drinking water facility during 2014-15. Details are given in Table 8.31. State Government has proposed to provide piped drinking water in all those 845 GPs where it is still a distant dream. In first phase it will be implemented in 1,256 GP, and subsequently all the panchayats would be covered under this scheme. In the first phase, storage-based stand posts will be constructed in 1,660 villages this year. The water tank will be of 1,000- 2,000 liters capacity. The Government also decided to install tube wells on raised platform in all the villages which are vulnerable to floods. The work is continuing to cover all villages.

#### Achievement of Rural Water Supply Programme in Odisha (in number)

Year	PWS commissioned	Spot sources (TW+CS)	Drinking water in schools
2004-05	94	10475	5794
2005-06	134	22714	9476
2006-07	65	12142	3768
2007-08	1010	9008	754
2008-09	2020	13126	156
2009-10	900	7484	42
2010-11	907	12297	3207
2011-12	850	16795	2901
2012-13	691	32980	3250
2013-14	1074	31208	1526
2014-15	589	30714	1806
2015-16	391	21126	1245

[Table 8.31]

Source: RWSS, Odisha

#### Bharat Nirman

Provision of safe drinking water in rural areas is one of the activities under Bharat Nirman. Physical targets and achievements under this

programme from 2009-10 to 2015-16 shows that 13,582 partly covered habitations, 1,245 schools and 519 quality affected habitations were covered in 2015-16.

### Swachha Bharat Mission (SBM)

The Prime Minister of India has given a call for “Swachha Bharat” as a mass movement of realizing Gandhiji’s dream of a clean India by 2019. As per the new guide lines, the new project implementation plan will be prepared to make India Open Defecation free as well as clean environment by 2019. The mission is officially launched by the Prime Minister on 2nd October 2014. Now the “Nirmal Bharat Abhiyan” (NBA) is restructured and replaced by “Swachha Bharat Mission” (SBM). This mission has two sub-missions, one for rural areas and other for Urban. The unit cost of Individual Household Latrine (IHHL) is enhanced from Rs.10,000 to Rs.12, 000. The entire funding for the incentive for construction of IHHL will be from Swachha Bharat Mission with share of both Government of India and Government of Odisha. The state wide base line survey conducted by Odisha revealed that 76, 56,231 HHs are eligible to receive incentive under SBM (G). During the year 2015-16, the state has targeted to construct 12 lakh individual HH toilets, 181 nos. of Community Sanitary Complex (CSC) and 100 solid and liquid waste management project. Till October 2015, 4, 21,442 IHHL sand CSCs have been completed under SBM. Government of Odisha plans to achieve the goal of “Swachha Bharat Mission” by the end of 2019. To achieve the mission, Odisha has adopted the Community Led Total Sanitation (CLTS) approach with focus on collective behavior change through awareness generation on positive hygiene practice. For timely achievement of the goal, 1485 CLTS motivators have been trained with the support of UNICEF and DFID who will help to make communities Open Defecation free.

### Open Defecation

There are a host of disease externalities one must closely consider including drinking water, sanitation and air pollution amongst others. One of the biggest problems hurting early life health in Odisha is enteric infection due to open defecation especially in rural Odisha. As per 2011 Census, only 22 percent of households have access to latrine facilities within the household premises in Odisha which is the lowest among all States of India. That means 78 percent households are having no latrine facilities at all in Odisha.

### Urban Water Supply and Sanitation Programmes

At present about 914.18 million liters of drinking water is supplied per day to 110 ULBs and two census towns benefiting a population of 65.98 lakh. Out of which, about 25.27 lakh urban population are benefited through 3.97 lakh house service connections and the rest 40.21 lakh population are served through 27,250 nos. of public stand posts. Besides, there are 32,262 nos. of hand pump tube-wells functional in different ULBs and Census Towns to cater to the water demand during non-supply hours and demand of population residing in areas uncovered by pipe water supply system. At present out of 2008 wards of 110 ULBs and 2 Census towns, 1,209 wards are fully covered, 672 wards are partly covered and 127 wards are not covered with piped water supply system. During the financial year 2015-16 a budget provision of Rs.189.50 crores for ongoing and new schemes in different urban water supply and sewerage projects was made, out of which Rs.184.85 crore (97.55 percent) expenditure have been incurred. Out of 904 number of urban water supply projects during 2015-16 (489 ongoing and 415 new), 718 number of projects are completed and 189 numbers have

been spilled over to current financial year. Similarly out of 50 urban sewerages, 24 completed, 26 spilled over to 2015-16. There was a proposal for sinking of 1,428 number of

hand pump tube wells during 2015-16 and 1,400 numbers have been sunk and commissioned. The details are given in Table 8.32.

#### Achievement of urban water supply and sewerage schemes under State plan during 2015-16

(Rs. in crore)

Scheme	No. of projects		Budget provision	Expenditure
	Sanctioned	Completed		
Urban Water Supply Programme	904	718	155.36	155.36
Urban Sewerage	42	16	20.11	20.11
Hand pump tube wells	1430	1405	103.01	103.01
Capacity Development and Preparation of Detailed Project Report (DPR)	77	27	19.71	19.71
RLTAP(Revised Long Term Action Plan)	01	-	165.16	165.16
SLB(Service Level Bench Marking)	48	29	13.49	13.49
<b>Total</b>	<b>2502</b>	<b>2195</b>	<b>476.84</b>	<b>476.84</b>

[Table 8.32]

Source: Chief Engineer P.H.

#### Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

This is a centrally sponsored scheme with funding pattern 80:10:10 between Government of India, Odisha and concerned ULB (80 percent+10percent+10percent). Bhubaneswar and Puri town have been considered in this programme. Puri water supply scheme has been sanctioned for Rs. 166.90 crore. The work is in progress. Expenditure up to March 2016 was Rs. 47.69 crore and expected to complete by December 2016.

#### Odisha Integrated Sanitation Improvement Project

The Odisha Government took up this project Japan International Cooperation Agency (JICA)-assisted Odisha Integrated Sanitation Improvement Project works in the twin city of Cuttack and Bhubaneswar have been taken up to improve the sanitation condition of the cities of Bhubaneswar and Cuttack. The Project is being implemented by the Odisha Water Supply and Sewerage Board under the

Housing and Urban Development Department of the Government of Odisha. The project includes 632 km of sewer network, including 252 kms of in Bhubaneswar and 380 kms in Cuttack, 26 sewerage treatment plants and 48 pumping stations in the twin city. The project cost has been estimated around Rs 2,974 crore out of which State Government share is Rs 594 crore.

#### Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)

There are 17 numbers of schemes sanctioned under Urban Infrastructure Development scheme for Small and Medium towns with project cost of Rs.406.83 crores. Out of these 17 schemes, 6 schemes have been completed and commissioned, 2 works have been completed but under trial run 2 works are in completion stage and to be commissioned in current year. Tender on Emergency Procurement Construction (EPC) mode has already been invited or 4 number of works and will be taken up soon. In order to improve the

present water supply status a policy named “Odisha State Urban Water-Supply Policy” has been envisaged for improvement of all SLB indicators in phases starting from 2015-16 to 2026-27.

### **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**

AMRUT programme for improvement of water supply in 9 ULBs (i.e. Bhubaneswar, Cuttack, Puri, Sambalpur, Rourkela, Balasore, Bhadrak and Baripada) has been taken up during 2015-16 and to be completed by 2019-20 with 50 percent share of Government of India and 50 percent share of Government of Odisha. The objectives of the mission are to ensure that every household has access to a tap with assured supply of water and sewerage connection, to increase the amenity value of cities by developing greenery and well maintained open spaces (parks) and to reduce pollution by switching to public transport or constructing facilities for non-motorised transport (walking and cycling). A total of Rs.2,151.42 crores of Rehabilitation of age old pipes water supply projects and metering projects are envisaged. During 2015-16, Rs.424.94 crores of projects are implemented. For the year 2016-17 approximately Rs.487.00 crores of water supply projects are envisaged and rest work will be taken up subsequently.

### **Construction of Public Toilets**

Government of Odisha has proposed to setup Hybrid 5,979 toilets with the help of Sulabh International in the year 2016-17 in 9 AMRUT mission cities. An amount of Rs.1,000 lakh has been proposed during 2016-17 for construction of public toilets.

### **AAHAAR**

Aahaar program was launched on 1st April, 2015 in Odisha, with Housing and Urban Development, Government of Odisha as the nodal department to implement the program in the State with a objective to provide cooked

hot meals steamed rice and dalma, to the poor and needy people at affordable cost of Rs.5.00 per meal from 11 AM to 3 PM each day at places of public congregation in 21 outlets operative in five Municipal Corporation, 4 each in Bhubaneswar, Cuttack, Berhampur and Rourkela and 5 in Sambalpur. These outlets are mostly opened at hospitals and near bus stands, railway stations, courts, collectorate etc.

## **8.4 Welfare Programmes**

In order to improve the quality of life of vulnerable group of population like children and women, disabled, orphans, old age persons etc. the State Government has enunciated series of welfare programmers in the form of education, health care, social security measures .

### **Child and Women Welfare**

The child populations in the age group of 0-6 years constitute 12.6 percent of the State population as per 2011 census. The total children count 52.73 lakh comprising 27.16 lakh male and 25.57 lakh female. A number of schemes/programmes have been implemented by the Women and Child Development Department for welfare of children and women.

### **Integrated Child Development Scheme (ICDS)**

This programme was launched in 1975 is a holistic approach seeking to provide an integrated package of services in a convergent manner for child development. The State has achieved universalization of the programme by covering all Blocks through 318 ICDS projects 20 projects in different urban areas through 61,090 Anganwadi Centres and 10,216 Mini Anganwadi Centres. The centrally sponsored scheme with the funding pattern of 60:40 between the centre and the

state respectively aims at holistic development of children below 6 years and proper nutrition and health education of pregnant and lactating mothers. The scheme provides a package of six essential services to children below the age of 6 years, pregnant women and lactating mothers. These are: (i) supplementary nutrition, (ii) immunisation, (iii) health check-ups, (iv) referral services, (v) non-formal pre-school education, and (vi) nutrition and health education. Since ICDS programme has been universalised, all eligible beneficiaries are

registered under the scheme. Figure 8.12 shows the trend of coverage of beneficiaries between 2009-10 and 2015-16. Details of information are given in Table 8.33. During 2015-16 Rs.844.87 crore was made available for this programme out of which Rs.625.77 crore expenditure was incurred during the same period. Currently a service under the scheme is being provided to 52.11 lakh beneficiaries, through a network of about 61,090 operational Anganwadi Centres (AWC) and 10,216 Mini Anganwadi Centers.

### Beneficiaries Covered under ICDS Programme

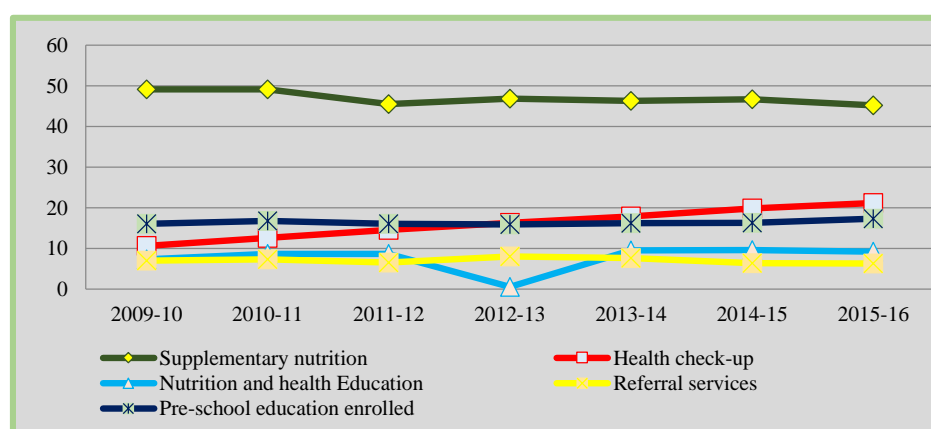
(in lakh numbers)

Programme/ Scheme	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Supplementary nutrition	49.1	49.1	45.51	46.86	46.28	46.66	45.17
Health check-up	10.68	12.65	14.56	16.28	17.91	19.88	21.17
Nutrition and health Education	7.3	8.7	8.7	0.55	9.58	9.61	9.19
Referral services	7.05	7.35	6.54	8.05	7.67	6.40	6.33
Pre-school education enrolled	16.08	16.8	16.05	15.88	16.24	16.30	17.35
<b>Immunisation attended</b>							
D.P.T	6.91	5.73	4.48	6.67	6.37	6.46	5.91
Polio	6.80	5.63	4.33	6.52	6.31	6.46	6.08
BCG	6.41	5.61	4.41	5.73	5.45	5.17	4.85
Measles	6.72	5.67	4.57	6.75	6.48	6.40	6.34
T.T	6.98	7.41	5.01	6.48	6.44	6.64	5.99

[Table 8.33]

Source: A.R.W and CD Deptt.

### Coverage of ICDS Beneficiaries in Odisha



[Figure 8.12]

Source: A.R.W and CD Deptt.

### Pre-School Education

Pre-school education kits with toys and different kinds of educational materials are provided to every AWC each year at a cost of Rs. 3,000/- per annum. During 2015-16, 17.35 lakh children in the age group 3 to 6 year were enrolled and 15.67 lakh attended up to March'16.

### Rajiv Gandhi Scheme for Empowerment of Adolescent Girls "SABALA" (RGSEAG)

It is introduced by GoI, Ministry of W and CD and has been merged to the existing scheme "Nutrition for Adolescent Girls (NPAG) and "Kishori Shakti Yojana (KSY) with funding under non-nutrition component 60:40 and nutrition component 50:50 of the Central and State Government for 11 to 14 years school going girls and 15 to 18 years girls. During 2015-16, 6.27 lakh adolescent girls have been covered under nutrition component. An amount of Rs.35.28 Crores has been provided under state share of CSS till March 2016.

### Other Schemes

- i) "Anganwadi Karyakartri Bima Yojana" under LIC has been introduced by GoI w.e.f 01.04.2004 with the premium of Rs.280/- per annum per member.
- ii) Uniform to pre-school children has been provided @ Rs.100/- per child by the State Government during 2015-16.
- iii) "Mamata" is a conditional cash transfer maternity benefit scheme launched by the State Government on 19th September 2011 to provide partial wage compensation to pregnant and nursing mothers, to increase ante-natal care, post-natal care and immunization to improve mother and child care practices especially breast feeding and complementary feeding of infants for pregnant women of 19 years of age and above for the first to live

births except all Government/ PSU (Central and State) employees. The beneficiaries will receive a total incentive of Rs.5000.00 in four installments. Payment will be made by e-transfer from CDPO. The AWW and AWH will receive a cash incentive of Rs.200.00 and Rs.100.00 per beneficiary respectively. This scheme is being implemented in all ICDS projects of Odisha except Baragarh and Sundergarh district. As on 29.02.2016 the benefit has reached more than 22.41 lakh women of the State. An amount of Rs.259.29 crores has been provided under "Mamata" for 2015-16.

### Odisha State Council for Child Welfare (OSCCW)

The Odisha State Council for Child Welfare is the nodal agency of the State to coordinate schemes, programmes and activities relating to children in difficult circumstances. It scrutinizes applications of deemed orphans relating to 'adoption' under the guidelines prescribed by the 'Central Adoption Resource Agency'. There are six Balashrams (orphanages) and nine Anganwadi Training Centres in the State, under the supervision of the council. During 2015-16, Rs.18.60 lakh under state plan and Rs.1.00 lakh under non-plan was provided for activities relating to child welfare programmes.

### Orphanages

Children under the category 'in need of care and protection' are admitted and maintained in childcare institutions (orphanages) to be mainstreamed into society. In addition to general education, they are imparted different kinds of vocational training. Steps are taken for their overall development: physical, mental, intellectual and moral. They are taught yoga, music and sports. To supervise their home tasks and clarify doubts from text books,

retired head-masters and experienced teachers are engaged in the orphanages. During 2015-16 an amount of Rs.651.36 lakh was provided for maintenance of children in need of care residing in 399 Child Care Institutions (CCIs).

### **Juvenile Justice**

The Government of India has amended the Juvenile Justice (Care and Protection of Children) Act, 2000 and enacted more child friendly Juvenile Justice (Care and Protection of children) Act, 2006. The Act provides for proper care and protection to children for their ultimate rehabilitation. There are sixteen Observation Homes in the State, out of which twelve homes are run by NGOs and the rest by the State Government. Three Special Homes and Observation Homes have been established, in which children are kept till they are released. There are 286 care institution registered under Juvenile Justice in 30 districts of the state out of which 46 are Government. Under statutory support services, there are 30 Juvenile Justice Boards (JJB), 30 Child Welfare Committee (CWCs) and 30 District Child Protection Committees (DCPCs) functioning all over the State. JJBs take up the issues of children in conflicts with the law, while CWCs are responsible for handling issues of children who are in need of care and protection. There are 30 Special Juvenile Police Units (SJPU) have been established in 30 districts of the state for child friendly police intervention. The Juvenile Justice Fund is created in the State for welfare of juveniles. The State Level Juvenile Justice Advisory Board and State Adoption Advisory Committee are also active in the State. Government have established 3nos. of special homes i.e. at Berhampur, Rourkela and for girl's at Berhampur. 31 number of shelter homes have been opened and run by the Government recognized voluntary Organisations.

### **Adoption**

A State Adoption Cell has been constituted for the promotion and monitoring of child adoption activities in the State. Grant-in-aid is given by the Government of India to NGOs for running Homes for Infants (Sishu Grehas) to promote adoption within the country. There are 14 Specialised Adoption Agencies (SAAs) to promote in-country adoption. The guidelines for adoption formulated by Central Adoption Resource Authority have been followed in the state through SARA. Child line is active in 13 districts and providing Emergencies Services (ESs.). A Toll Free number 1098 is working round the clock from children in distress. Government have received 8nos. of new application for SAAs for recognition, which are under scrutiny process.

### **8.4.2 Welfare of Persons with Disability**

#### **The Handicapped**

As per 2011 Census, there were 12.44 lakh disabled persons in Odisha, which was 10.21 lakh during 2001 Census. During 2011 Census, out of the total disabled 2.38 lakh (19.15 percent were S.C and 2.54 lakh (20.39 percent were S.T disabled. Out of the total disabled 2.64 Lakh (21.20 percent ) were visually impaired, 2.38 lakh (19.11 percent ) hearing impaired, 0.68lakh (5.51 percent with defective speech, 2.60 lakh (20.89 percent Orthopedically handicapped, 0.72 lakh (5.82 percent) are mentally retarded, 0.43 lakh (3.44 percent) are suffering from mental illness, 1.26 lakh (10.14percent ) multiple disability and 1.73 lakh (13.89 percent ) are only other disabled persons.

The 58th Round of NSSO estimates in 2002 indicates a lower figure of disabled in Odisha at 2,459 per lakh Population (2,856 for males and 2,330 for females). As per 2011 Census

total disabled persons at national level was 268.11 lakh (149.86 lakh male and 118.25 lakh female).

A number of welfare schemes are being implemented in the state with financial support from Government of India to bring the handicapped in to the mainstream of the society. Some of these welfare schemes are detailed below:-

- i) Madhu Babu Pension Yojana
- ii) Special Schools for disabled children
- iii) Distribution of Special aids and appliances
- iv) Rehabilitation of cured Leprosy patients
- v) Training and rehabilitation of persons with disability
- vi) Rehabilitation of physically and mentally challenged, socially disadvantaged persons
- vii) Care and protection of spastic children
- viii) Scholar ship and stipend to disabled students
- ix) Indira Gandhi National disability scheme

### Emergency Feeding Programme

Emergency Feeding Programme (EFP), a food- based intervention is to provide one square meal a day to old and destitute persons on a sustained basis which will help the poorest and most vulnerable section of the rural population to cope with food insecurity and food distress periods. The programme has been implemented in 8 KBK districts under the Revised Long Term Action Plan (RLTAP). Under the programme 2, 00,000 old, infirm and indigent persons are provided cooked meal daily through AWC. District wise breakup is given below.

#### KBK District-wise coverage of EFP

Sl. No.	Name of the District	Beneficiaries
1	Koraput	37,315
2	Malkangiri	14,990
3	Nawarangpur	19,270
4	Rayagada	22,840
5	Bolangir	33,860
6	Sonepur	13,525
7	Kalahandi	37,200
8	Nuapada	21,000
	Total	20,00,00

[Table 8.34]

Source: Emergency Feeding Programme Draft Evaluation Report

The daily ration consists of 250 gm of rice, 36 gm of dal, vegetables, oil, salt and condiments comprising 812 kilocalories of energy and 21.6 gram of protein. The daily ration cost has

been fixed at Rs.5.50 with nutritional value of 1,060 kilo calories of energy and 23.20 gm of protein. Funds for the programme are provided from the Special Central Assistance (SCA) for KBK districts. Provision for an amount of Rs.4,000.00 lakh has been made during the year 2014-15. This programme has been closed during 2015-16.

### 8.5 Social Security Measures

#### 8.5.1 Indira Gandhi National Old Age Pension Scheme (IGNOAP)

This programme has been implemented in the State since 1995 to provide social security to the poor and destitute. It is a 100 percent Central Scheme supported under National Social Assistance Programme (NSAP) and has been re-named since as Indira Gandhi National Old Age Pension (IGNOAP) with revised selection criteria from 2007. All



persons aged 65 and above are listed as BPL families and covered under IGNOAP. Subsequently Government of India has decided to lower the age limit from 65 to 60 with effect from 1st April, 2011. The rate of pension has been revised to Rs.300/- per beneficiary per month up to age of 79 and Rs.500/- for 80 years and above. During 2015-16 the provision of Rs.5,529.87 lakh has been made under state plan Budget Estimate to cover 14.18 lakh beneficiaries. Besides, under Indira Gandhi National Widow Pension Scheme (IGNWPS) provision for Rs.1,928.73 lakh was made under the State Plan to cover 5,28,570 beneficiaries.

### **8.5.2 Indira Gandhi National Disability Pension Schemes (IGNDPS)**

Government of India has launched the IGNDPS in February 2009. Persons with severe or multiple disability in the age group of 18-64 years and belonging to a household below the poverty line will be eligible to get pension of Rs.300/- per month in the above-scheme. Subsequently, Government of India has revised the age limit to 18-79 years since 01.10.2012. During the year 2015-16, provision of Rs.3,154.76 lakhs was made under the State Plan in the original Budget Estimate to cover 90,754 beneficiaries. (Annexure 8.4)

### **8.5.3 National Family Benefit Scheme (NFBS)**

The Scheme is another component of National Social Assistance Programme NSAP that has been implemented in the State since 15th August, 1995. Under this scheme, one time grant of Rs. 10,000/- is being provided to a BPL family on the death of the primary bread earner in the age group of 18-64 year. The assistance is paid to the head of the household such as the spouse, minor children, unmarried

daughters and dependent parents. In case of an unmarried adult, the term household would include minor brothers and sisters. From October'2012 Government of India have revised the age group to 18-59 years and grant to Rs.20,000. During 2015-16, Rs.4,837.59 lakh has been provided under state plan Budget estimate.

### **8.5.4 Madhu Babu Pension Yojana (MBPY)**

In January 2008, the State introduced Madhubabu Pension Yojana (MBPY) by merging two pension schemes: "State Old Age Pension Rules, 1989" and "Odisha Disability Pension Rule, 1985". All beneficiaries of these schemes are covered under MBPY since 2008. The present coverage under the scheme is 10,76,624 beneficiaries under State Plan and 9,08,400 under Non-plan aggregating to 19,85,024 beneficiaries. The rate of pension is Rs.300 per month per beneficiary up to the age of 79 years and Rs.500 per month for 80 years and above.

### **8.5.5 Home for the Aged**

In order to provide care and protection to needy persons of 60 years and above age, State Government is providing grant-in-aid to voluntary Organisations for taking care of these persons irrespective of sex, caste, religion and to provide free food, clothing, and medical treatment and recreation facilities. This is a continuing scheme in which 74 elderly persons irrespective of gender, caste or religion are provided food clothing, medical care and recreation facilities at the institutions. During 2015-16, Rs.18.00 lakh was provided under State Plan.

Besides, 40 Old Age Home with intake capacity of 1,025, 60 Day Care Centre with 3,000 intake capacity, 3 Mobile Medicare Unit and 33 Drug De-addiction centers are

managed by different NGOs with the financial support from Government of India, Ministry of Social Justice and Empowerment.

Besides the above, Government of India has created a new Act titled “The Maintenance and Welfare of parents and Senior Citizen Act-2007 to ensure proper maintenance of parents and Senior Citizens. The State Government has framed the Odisha Maintenance of parents and senior citizens Rules 2009 and constituted one Appellate tribunal for each district and appointed the district Magistrate of the concerned district as presiding Officer of the Appellate Tribunal. As per section 18(1) of the Act, the state Government has declared the District Social Welfare Officer (DSWO) of the concerned district as “Maintenance Officer”. Government have decided to implement “Winter Allowance and Summer Allowance to pensioners out of State Plan Funds along with the regular pension. The rate is Rs.200/- per pensioner as winter allowance and Rs.100/- as summer allowance. This shall be given in alternative financial years.

#### **8.5.6 Umbrella scheme for Transgender**

As per the judgement of Hon’ble Supreme Court dated 15.04.2014 in a writ petition No.400/2012 the State Government have introduced this new scheme by comprising the five welfare schemes for welfare of transgender.

- i) Scheme for financial support to the parents of transgender children.
- ii) Schemes for pre-matric scholarship for the transgender students studying in class VII to X.
- iii) Scheme for pre-matric scholarship for transgender studying in class XIU and above for studies in India.

iv) Schemes for assistance for skill development training to transgender persons.

v) National pension scheme for transgender persons.

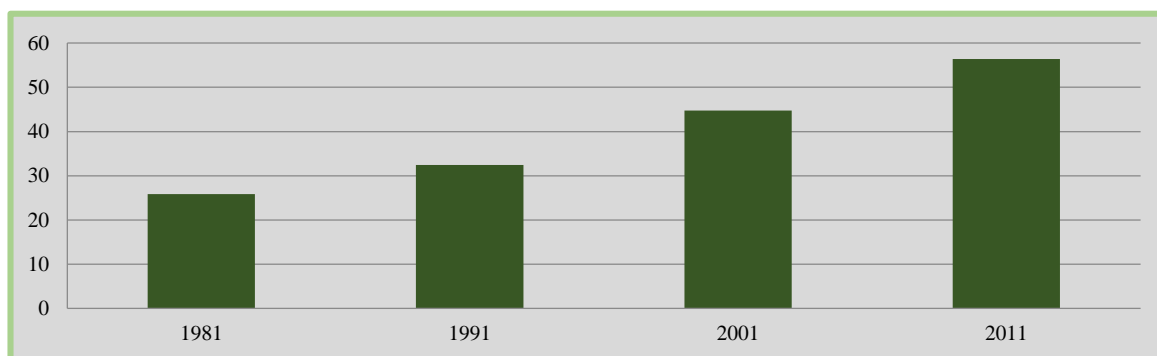
A sum of Rs.400.00 lakh has been earmarked for the year 2016-17.

### **8.6 Women’s Development and Welfare**

Women constitute half (49.5 percent) of the State’s total population .As such their socio-economic development is a sine qua non for sustainable growth of the economy. Generally, women experience considerable disadvantage and discrimination in the society owing to gender differentiation. The gender bias propels disparities in terms of literacy, access to public health services and social development indicators. The female literacy of Odisha as per 2011 Census was 64 percent which was at par with national averages. But gender gap in literacy as per 2011 Census was the highest in Nuapada district and lowest in Khordha district.

Figure 8.13 graphs the proportion of women in the total workforce in Odisha during the period from 1971 to 2011. The percentage of women workers in Urban and Rural areas stood at 29.7 and 14.1 percent respectively in the total workforce has been consistently increasing except 1981. The proportion of women in total main workers has increased from 16.18 percent in 1981 to 17.87 percent in 2011, while the proportion of women marginal workers as compared to total marginal workers has declined from 85.80 percent in 1981 to 54.52 percent in 2011. This appears to be the outcome of increased literacy among women and higher participation of women in the Service Sector.

### Proportion of women worker in total workforce in Odisha, 1981-2011



[Figure 8.13]

Source: Census 1981 - 2011

#### 8.6.1 Employment of Women in Agriculture and Allied Activities

Employment contributes to development goals and targets. Women have entered in greater numbers in the farm sector and engaged in the activities like sowing, transplanting, weeding, hoeing and harvesting, whereas the majority of male workers attend to ploughing operations. But existence of wage differentials among men and women are seen for the identical nature of jobs. Women face wage discrimination at any work sites. This can be inferred from Table 8.35, the proportion of women agricultural workers (cultivators and agricultural laborers) to the total women workforce increased from 42.75 percent in

1981 to 47.07 percent in 1991, but declined to 21.43 percent in 2001. During 2011 census the share has again increased to 70.7 percent while the proportion of women workers engaged in cultivation and agricultural laborers in rural Odisha attained 76.2 percent and it was only 11.5 percent for urban Odisha during 2011.

The proportion of women employees in the total workforce in the organised sector was 14.03 percent by the end of December 2013. Their proportion in the public sector increased from 0.96 percent in 2004 to 1.00 percent in 2013, in case of private sector it increased from 0.11 to 0.12 during the same period.

#### Distribution of Female workers

Census Year	Female Workers (in Lakh)			Female Workers in Agriculture (in Lakh)			% of Female workers in agriculture to total female workers		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
1981	25.87	24.51	1.36	11.06	10.8	0.26	42.75	44	19.12
1991	32.42	30.82	1.59	15.26	14.94	0.32	47.07	48.48	20.13
2001	44.75	42.13	2.61	9.59	9.45	0.14	21.43	22.43	5.36
2011	56.39	51.62	4.77	39.87	39.32	0.55	70.70	76.17	11.52

[Table 8.35]

Source: Census of India 1981, 1991 and 2001

## 8.6.2 Government Policies and Programmes

### Prevention of Dowry

The State Human Rights Protection Cell monitors dowry-related homicide, suicide and torture cases. The 'Dowry Prohibition Act' was enacted by the State in 1991 with setting up a complaint committee in the Secretariat. Special instructions have been issued for action against offences. The Sub-Divisional Magistrates have been designated as the Dowry Prohibition Officers to act against dowry offenders. Advisory Boards have been appointed to assist them. In order to monitor the problems of sexual harassment of women in the work place, a Committee with a senior lady officer as Chairperson has been set up at the district level. The State Government has extended its financial arms for the NGOs to propagate and organise dowry-less marriages, anti-dowry campaigns, seminars, workshops and street theatres to create mass awareness.

### State Commission for Women

To look after women's welfare, a statutory body under the banner of the State Commission for Women has been constituted in 1993 to sort out family disputes and problems concerning women. It also monitors the conditions of women in prisons. Besides, the Commission intervenes in instances of complaints of sexual harassment of women at working place and trafficking in women. During 2015-16, it received 3,369 complaints including 91 dowry deaths, 950 dowry tortures, 63 rapes, 87 kidnapping and 43 suspected deaths/suicides. Besides, there were 1016 non-dowry and 1,119 other cases. The Commission has organized 8 camp courts covering 10 districts to deliver justice at their door steps. Besides, Legal Awareness Camps have also organized in district headquarters to

create awareness among the women folk, regarding legislation and different Government schemes for safeguarding the interest of women in Odisha. Out of a total of 3,369 cases, 1,663 cases have been disposed off.

### Odisha State Social Welfare Board (OSSWB)

This Board was set up in 1954. It holds regular welfare activities, seminars to generate awareness among the community about women's problem and receives grants from the Central and State Governments for the purpose OF some welfare programmes which are detailed below.

### Rajiv Gandhi National Crèche for Children of Working and Ailing Mothers

Under the programme, financial assistance are given to the registered voluntary organisations to set up crèches for children in the age group of 0-6 years of working and ailing mothers belonging to lower income groups . Each unit consists of 25 such children. These children are provided with regular health check-ups, supplementary nutrition, and immunisation and sleeping facilities. During 2015-16, with an outlay of Rs. 1.63 crore 384 units covering 9,600 beneficiaries have benefitted from the programme.

### Family Counselling Centres

This schemes aims to strengthen social fabrics and promote harmony with in the family. It prevents the breakaway families to reunite through proper counseling. During 2015-16, an amount of Rs. 32.84 lakh has been released out of sanctioned amount of Rs.65.67 lakh in favour of 27 institutions covering 1 4,198 beneficiaries.

### **Working Women's Hostels**

This scheme envisages safe and affordable hostel accommodation for working women, singles, divorcees, and separated women etc. During the year 2015-16, an amount of Rs.450.00 lakh has been provided under the scheme.

### **Anti Human Trafficking Measures**

The multi-dimensional problem of trafficking of women and children for the purpose of commercial sexual exploitation has assumed serious violation of human rights. Commercial exploitation of women and children take place in various forms including brothel based prostitution, sex tourism, entertainment industry and pornography in print and electronic media. combating trafficking and bring offenders under custody, State Government has set up 37 Integrated Anti Human Trafficking Units (IAHTUs) Trafficking units during 2015-16 with budgetary support of Rs.50.44 lakh

#### **Short Stay Homes**

The scheme aimed at providing short term shelter and institutional service like counseling and guidance along with medical and physical check-up and treatment and skill development facilities for the women in distress circumstances. During 2015-16, 810 nos. of women in distress or in difficult circumstances were provided shelter through 27 nos. of Short Stay Homes. An amount of Rs.221.17 lakh has been sanctioned under this scheme.

### **Mahila Vikas Samabaya Nigam (MVSAN)**

The Nigam, an apex co-operative Society working under Women and Child Development Department was established as the nodal agency for implementing schemes and programmes for welfare, development and empowerment of women and to enable them

to take up different sustainable income generating activities. In collaboration with ORMAS, an agency of the Panchayati Raj Department, it has widened the scope of marketing of products of Women's Self Help Groups (WSHG) through Palishree Melas and "Sisir Saras". It provides funds for training of the poor and needy women in traditional occupations to upgrade their skills and sell their products. For the year 2015-16 an amount of Rs. 50.00 lakh has been provided for the different training programme under MVSAN. It also facilitates loans to the disabled under the loan assistance scheme of the NHFDC. During the year 2015-16, MVSAN has received the budgetary support of Rs.149.00 lakh under the State Plan Scheme.

### **Odisha Livelihood Mission (OLM)**

Aajeevika - National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. In Odisha, the centrally sponsored programme Swarna Jayanti Gram Swarajgar Yojana (SGSY) has been restructured as National Rural Livelihoods Mission (NRLM). In Odisha, the scheme is being implemented by Odisha Livelihoods Mission (OLM). The basic objective of OLM is to enhance the socio economic condition of rural poor through promotion of sustainable community based institutions. The targeted poor households are mobilized into Self Help Groups (SHGs) which are in turn federated into higher level institution at village as Cluster Level Forum (CLF) and G.P level Gram Panchayat level Federation (GPLF). At present 24 districts (including 10 TRIPTI districts), 88 blocks, 1498 GPs, 2.92 lakh SHGs, 149 new CLFs are functioning under NRLM. 733 community resource persons (CRP) for community mobilization under CLF, 23 Master Book

Keepers (MBK) under GPLF are identified and placed for providing services. 34,360 rural youths have been trained under Placement Linked Skill Development Programme out of targeted 50,000 rural youth. 36,813 women farmers have been covered under Mahila Kisan Sasaktikaran Pariyojana (MKSP) till March, 2016. About 1, 26,328 households have been covered under livelihood intervention producer group that include agriculture/horticulture, livestock, NTFP and non- farm sectors etc. Besides, 314 Bank Mitras have been placed during 2015-16. About 58,113 SHGs have been credit linked with Rs.682.00 crore. 798 (92.5 percent) Livelihood Support Persons (LSPs) have been selected to provide hand holding support. Rural Self Employment Institutes (RSETIs) are setup in all 30 districts of the State to promote rural entrepreneurship and self-employment. In 2015-16, 17,387 rural youths in the age group of 18-45 have been trained against the target of 19,800. To empower women in agricultural participation and productivity, Mahila Kisan Sasaktikaran Pariyojana (MKSP) has been implemented in 9 districts of Odisha covering 21 blocks, 765 villages and 36,813 women farmers by the end of 31st March 2016. For ensuring sustainable livelihood of coastal fishermen households convergence have been made with Integrated Coastal Zone Management Project (ICZMP) by covering 21 GPs of 5 blocks in Puri and Ganjam district.

### **Mission Shakti**

Government of Odisha played the lead role in empowering women both socially and economically by launching the Mission Shakti in March, 2001 with a target to organize two lakh Woman Self Help Group (WSHGs) covering all revenue villages of the state. The formation of WSHGs has crossed 2 lakh by

2008. Mission Shakti believes in empowerment through SHGs mode with thrift and credit as its backbone. A mission approach has been adopted for formation of 5, 63,388 of women's Self-Help Groups (WSHG) with membership strength of 67, 60,656 numbers. A Mission Shakti Bhawan have been established at the State headquarters with a cost of Rs.1,266.09 lakh.

### **Biju Kanya Ratna Yojana (BKRY)**

The Odisha Government has launched the Biju Kanya Ratna Yojana (BKRY) for the development of girls in three districts of the state. The scheme was launched by Hon'ble Chief Minister Sri Naveen Patnaik and will be implemented in Ganjam, Dhenkanal and Angul districts on a pilot basis for three years. The objective of the scheme is to improve Sex Ratio at Birth (SRB) and Child Sex Ratio (CSR) in the three districts. The scheme will ensure enrolment of girls in elementary education and also track dropout girls from schools besides creating a better environment for them. It will also create awareness on gender discrimination against girls, their nutrition, health and education. It also includes provision of toilets for girls in every school, self-defence training and along with promotion of access to education. It also seeks to sensitise adolescent girls on reproductive and sexual health issues, training of elected representatives and grassroots functionaries as community champions. The CSR in Nayagarh, Angul, Dhenkanal and Ganjam districts had declined from 967 in the 1991 census to 941 in the 2011 census.

## **8.7 Welfare of Scheduled Castes and Scheduled Tribes**

Odisha occupies a unique position among the Indian states and Union Territories for having a rich and colorful tribal scenario. Odisha also

occupies a distinct place in our country as it represents a unique blend of unity among diversity. The scheduled tribes (ST) and scheduled castes (SC) constitute about 39.98 percent of the State's total population. (ST- 22.85 percent and SC- 17.13 percent as per 2011 census). Out of 635 tribal communities in India, 62 are found in Odisha and 13 are Particularly Vulnerable Tribal Groups (PVTG). There are 93 scheduled caste communities in the State. The State Government implements several programmes for economic, educational and social development of the SC and ST communities.

### 8.7.1 Status of Scheduled Tribes (STs)

The ethos, ideology, world view and cultural heritage of tribal communities are rich and varied, which ranges from nomadic food gatherers and hunters to skilled and settled agriculturists and horticulturists. Tribal areas of Odisha present in extremely diverse socio-economic panorama. Tribals speak as many as 74 dialects. The PVTG in Odisha include Bonda, Chuktia, Bhunjia, Didayi, Dongaria Kondh, Juang, Hill-Kharia, Kutia Kondh, Lanjia Saora, Lodha, Mankirdia, Paudi Bhuyan, Soara and Birhor. These communities are considered a special category in view of their distinct social, cultural and occupational practices and traits. The PVTG are distinguished from other tribal communities for their relative physical isolation, stagnate or diminishing population, very low level of literacy, low level of techno economy i.e. subsistence level of economy, very low level of literacy associated with pre-agricultural stage of hunting, food gathering and sifting cultivation. They reside in parts of twenty-one blocks of twelve districts. Odisha has the third largest concentration of tribal population in the country. Odisha comprise of 9.17 percent of the total tribal population of our country

followed by Madhya Pradesh (14.69 percent) and Maharastra (10.08 percent). About 44.7 percent of the state's geographical area, which is known as Scheduled Areas extend over 119 out of 314 blocks in thirteen districts and a portion of Sorada Tahasil of Ganjam district. The ST population of Odisha increased from about 42.24 lakh in 1961 to 95.91 lakh in 2011. However, their proportion in the total population decreased from 24.07 percent in 1961 to 22.85 percent in 2011. Mayurbhanj district has the maximum ST population (14.80 lakh) as well as highest proportion of ST population (58.7 percent) in the State. The decadal population growth rate of STs since 1961 has been less than that for the total population. But during 2011, the ST population growth rate (15.82 percent) has surpassed the total population growth rate of 14.05 percent. About 93.8 percent of STs in Odisha reside in rural areas as against 90 percent in India. The sex ratio of ST stood at 1029 which is higher not only than the total sex ratio of the state 979 but also over the national level. The decadal growth rate of the ST population in Odisha is lower (17.70 percent) than that at the all-India level (23.7 percent). Table 8.36 provides further demographic and other details. Nine districts having 45 percent or more ST population as per the 2011 census are Malkangiri, Mayurbhanj, Rayagada, Nawarangpur, Kandhamal, Gajapati, Sundergarh, Koraput and Keonjhar. The ST population in these districts accounts for two-thirds (i.e., 66 percent) of the State ST population and ranges from 25 percent to 45 percent of the total population of the five additional districts of Nuapada, Sambalpur, Deogarh, Jharsuguda and Kalahandi. These 14 districts together have 79.7 percent of the total ST population of Odisha. There is a wide inter-district variation in the decadal growth rate of ST population,

which was highest in Kendrapara district (39 percent) and lowest (-9 percent) in Jagatsinghpur district. This higher inter-district migration of the ST population to coastal districts in search of better livelihood opportunities gradually increases the tribal population in these areas. The decadal growth rate of the ST population in rural areas of Odisha is 30.3 percent and in urban areas it is 14.1 percent. As per 2011 population census, there were 21.63 lakh ST households in Odisha out of which 20.32 lakh (86.30 percent) were in rural area and 1.31 lakh (13.70 percent) in urban areas. Out of total 21.63 lakh ST households, 53.1 percent households were livable condition and 32.7 percent house roof were handmade tiles.

Further, 82.4 percent households do not have any latrine and 78.4 percent house hold used fire-wood for their cooking. About 34.8 percent households possess telephone / mobile. As per 2011 population census, there were 16.70 lakh Schedule caste household in the state, of which 87.3 percent belongs to rural Odisha. Out of total 16.70 lakh households 49 percent were livable condition and roof of 35.9 percent households were Grass/thatch/ polythene or of handmade tiles. About 98.5 percent households are using either electricity or Kerosene for lighting. About 62.1 percent households do not have their own latrine and 62.9 percent households using fire wood for cooking.

#### Scheduled Tribe Population, Growth Rate and Sex Ratio in Odisha and India

Census	Population (in lakh)				Sex Ratio						Decadal Growth Rate (DGR)	
	Odisha		India		Odisha			India			Odisha	India
	Rural	Urban	Rural	Urban	Rural	Urban	Total	Rural	Urban	Total		
1961	41.36	0.88	291.1	7.74	1018	946	1016	989	897	987	-	-
1971	49.24	1.47	367.21	12.94	1009	958	1007	985	896	982	20.1	27.2
1981	56.42	2.73	484.28	32.01	1015	947	1012	988	912	983	16.6	35.8
1991	66.7	3.72	627.51	50.07	1006	930	1012	976	920	972	18.9	31.2
2001	76.98	4.47	773.38	69.88	1006	948	1003	981	944	978	15.82	24.5
2011	89.95	5.96	938.19	104.6	1031	991	1029	991	980	990	17.7	23.7

[Table 8.36]

Source: Census of India, 2011

#### 8.7.2 Status of Scheduled Castes (SCs)

Scheduled Caste population constitutes a sizeable chunk of the State population. The SC population in Odisha increased from 27.65 lakh (15.76 percent) in 1961 to 71.88 lakh (17 percent) in 2011. During 2011, the SC population constituted 17.13 percent of total population of the State as against 16.6 percent at all India level. The State stood 11th among all states and UTs sharing 3.6 percent of total SC population of the country. During 1961,

females outnumbered males among SC, but the situation reversed in the subsequent census years. As a result, their sex ratio declined from 1015 in 1961 to 987 in 2011 as against 979 for all communities in Odisha. Most SCs still live in rural areas, the rural SC population being 86.5 percent in 2011. There are 93 SC communities in the State. The districts with a high concentration of SC population are Ganjam (6.88 lakh), Cuttack (4.99 lakh), Balasore (3.79 lakh) and Jajpur (4.33 lakh), while Gajapati district (0.39 lakh) has the



minimum concentration. The proportion of SC population to the total district population is the highest (25.6 percent) in Sonepur district and lowest in Gajapati (6.87 percent). As shown in Table 8.37 the decadal growth rate of SC population in the State was less than the State average till 1981, after which the trend reversed. The decadal growth rate of SC population in 2001-2011 stood at 18.2 percent

in Odisha which was lower than the all-India average of 20.8 percent. There have been wide inter-district variations in the decadal growth rates of SC population. Balangir district witnessed the highest growth rate of 30.26 percent, while Gajapati district registered a meager growth rate 0.63 percent. The “Panās” are the most predominant among all the Scheduled Caste.

### Scheduled Castes Population in Odisha

Year	Total population	Male	Female	% of SC Population	Urban population	Rural Population	Proportion of rural SC population	Sex-Ratio*	Decadal Growth Rate (%)
1961	2764858	1371410	1393448	16	126026	2637832	95	1015	-
1971	3310854	1661038	1649816	15	207610	3103244	94	993	20
1981	3865543	1944071	1921472	15	363348	3502195	91	988	17
1991	5129314	2596464	2532850	16	550645	4578669	89	976	33
2001	6082063	3073278	3008785	17	703275	5378788	88	979	19
2011	7188463	3617808	3570655	17	969821	6218642	87	987	18

[Table 8.37]

\*Number of Females per 1000 males

Sources: Census data 1961-2011

### 8.7.3 Occupational Patterns

As per 2011 census, there were 47, 69,659 workers among STs, out of which 48.87 percent were main workers and the rest were marginal workers. The total number of workers among SCs was 29, 90,326 out of which 59.22 percent being main workers and the rest being marginal workers. There are proportionately more main workers among SCs while it is reverse in case of ST. Among the tribals, cultivators account for 40.4 percent and agricultural labourers 32.5 percent of total main workers. Of the total SC workers, 21.1 percent were cultivators and 33.3 percent were agricultural labourers. Most of the tribal and SC cultivators are marginal and small farmers or share croppers. Other important occupational groups are weavers, fishermen

and cobblers. There are 15 SC communities in the category of sweepers and scavengers. Apart from nomadic and semi-nomadic groups among SCs, there are de-notified communities identified as Special Vulnerable Groups (SVG).

### 8.7.4 Government Projects and Programmes

Development of ST and SC communities, elimination of all forms of exploitation and improvement of their quality of life has been the prime objectives of development policies of both the Government of India and State Government. A number of special programmes have been launched to uplift the socio-economic status of both ST and SC communities. Some of these programmes are briefly described below.

### Special Central Assistance (SCA) to Tribal Sub-Plan (TSP)

The Special Central Assistance (SCA) is being provided by the Ministry of Tribal Affairs (MoTA) to the State Government as an additive to the state Tribal Sub-Plan (TSP) for all round socio-economic development of tribal people. About 44.70 percent area of Odisha has been notified as scheduled area. It extends over 119 blocks in thirteen districts which covers ST population (about 68 percent) of the total tribal population of the State. Box 8.6 shows the scheduled area in Odisha. SCA is primarily meant for family

oriented income generated Scheme in the primary sector, i.e agriculture, irrigation and animal husbandry and only 30 percent of it is permitted to be utilised for infrastructure development. A portion of SCA is allocated to OSFDC for implementation of Dispersal Tribal Development Programme (DTDP). The SCA Funds are provided on to the ITDA, Micro Projects and MADA/Cluster blocks for implementation of Income Generation Schemes (IGS) and Infrastructure Development Schemes (IDS) in the ratio of 70:30. During 2015-16, Rs.134.85 crore was received as against the budget provision of Rs.200.00 crore under SCA to TSP.

### Scheduled Areas in Odisha

The entire districts of Mayurbhanj, Koraput, Malkangiri, Nabrangpur, Rayagada, Sundergarh and Kandhamal, R. Udayagiri Tahsil, Gumma and Rayagada blocks, Sorada Tahsil excluding Gajalbadi and Gochha Panchayats of Ganjam district, Kuchinda Tahsil of Sambalpur district, Telkoi, Kendujhar, Champua and Barbil Tahsils of Kendujhar district, Th. Rampur and Lanjigarh blocks of Kalahandi district and Nilagiri block of Balasore district.

#### [Box 8.7]

TSP approach envisages integrated development of tribal areas. All programmes in TSP areas, irrespective of their sources of funding, operate in unison. The objective is to bring the areas at par with the rest of the State and to improve the quality of life of Tribals. The original strategy of the TSP approach has been reoriented to focus on employment and income generating activities and to bring about incidental infrastructure development. The Ministry of Tribal Affairs has been providing Special Central Assistance as additional to the Tribal Sub-Plan for carrying out programmes to assist tribal households with income generation schemes and for creation of infrastructure in the TSP areas to support economic activities. During the 10th plan period (2002-07), a total of Rs.347.62 crore was received under SCA to TSP and

3.01 lakh tribal BPL families were assisted under various income generating schemes. During the 11th plan period (2007-08 to 2011-12), amounting to Rs. 545.62 crore has been released and utilised under this programme. Details of achievement are in Table 8.38. During 2014-15, a central Government fund of Rs 149.25 crore have been released to the executing agencies. During 2015-16, Rs.130.76 crore was released under this programme. A total number of 66,127 ST families below the poverty line have been assisted under various income generating schemes through 22 ITDAs, 17 Micro Projects, 46 MADAs, 13 Cluster Pockets and OSFDC during 2015-16 by the end of December 2015. Besides, 694 infrastructure projects have been created out of the flow of funds under SCA.

## Achievements under SCA to TSP and Article 275 (I)

(Rs in crore)

Year	SCA to TSP				Article 275 (I)				
	Financial Achievement		Physical Achievement		Amount released			Expenditure Incurred	No. of works completed
	Amount released	Expenditure	Beneficiary covered (in no)	Works completed (in no)	For infra structure	For EMRS	Total		
2002-03	64.95	64.95	53014	12121	34.42	2.00	36.42	36.42	217
2003-04	61.85	61.85	53373	1229	25.70	2.60	28.30	28.30	338
2004-05	75.79	75.79	42988	1361	35.17	8.30	43.47	43.47	1015
2005-06	66.74	66.74	69405	999	34.16	10.30	44.45	44.45	1247
2006-07	78.29	78.29	82367	1291	37.29	3.00	40.29	40.29	1312
2007-08	74.00	60.97	58516	1182	39.77	2.00	34.28	12.63	618
2008-09	102.90	102.90	74111	1348	32.07	9.22	41.30	41.30	480
2009-10	88.86	88.86	75215	738	62.28	7.98	70.26	70.26	1209
2010-11	123.93	123.93	82775	1205	64.66	31.78	96.44	96.44	955
2011-12	144.49	144.49	101038	1038	78.34	35.13	113.47	113.47	1625
2012-13	133.21	133.21	78212	1768	NA	NA	112.84	112.84	1131
2013-14	133.21	133.21	94374	1599	119.99	35.01	155.00	114.63	1437
2014-15	128.66	64.70	31753	625	68.18	10.39	79.57	70.30	858
2015-16	147.29	133.52	84274	1002	72.21	79.79	152.00	137.61	1376

[Table 8.38]

Source: SC and ST Development Department

### Grants under Article - 275(1) of the Constitution of India

As per the provisions of Article 275 (1) of the Constitution of India, the Ministry of Tribal Affairs gives annual grants to States to promote welfare of STs. The assistance covers the entire TSP area. Under this scheme, 100 percent grants are given to meet the cost of specific projects for tribals and raise the level of administration of Scheduled Areas. The grants are provided on the basis of ST population percentage in the State. Projects like Ekalavya Model Residential Schools (EMRS) from Classes VI to XII, roads, bridges, minor irrigation projects, hostel buildings, educational complexes, drinking water facilities and electrification of tribal

bastis, and establishment of multipurpose service centres are usually implemented under the programme. During 2015-16, an amount of Rs.152.00 crore was spent under Article 275 (1) and of the construction of normal grant. Government of India in Ministry of Tribal Affairs approved proposal of the State Government worth Rs.140.00 crore against which a sum of Rs.128.28 crore have been released . Till December 2015, funds to the tune of Rs.68.53 crore have been released to the executing agencies. This includes release of Rs.79.79 crore to the EMRS for implementation of special education development programmes as against Rs.26.83 crore in 2014-15.

### Integrated Tribal Development Agency (ITDA)

ITDAs were set up during the 5th five year plan as nodal tribal development agencies for plan formulation, programme implementation and operationalization of various development programmes in TSP areas. As many as 119 blocks of Odisha state having 50 percent or more ST Population have been covered by 22 ITDAs. During 2015-16, Rs.75.23 crore was sanctioned as SCA to ITDA, and the total funds available for expenditure during 2015-16 was Rs.142.08 crore and 517 projects were completed covering 28,416 number of beneficiaries up to the end of December 2015. During 2015-16 (up to Dec.2015), Rs.47.57 crore was sanctioned to ITDAs under Article 275(I) and total funds available for expenditure was R.79.81 crore completing total 636 projects.

### Focused Area Development Programme (FADP)

Odisha Tribal Development Society (OTDS) of ST and SC Development Department, Government of Odisha registered under Societies Registration Act 1860 has been facilitating implementation of Focused Area Development Programme (FADP) with the objectives to ensure sustainable livelihood of ST families through land and non-land based livelihood activities, to develop suitable infrastructure so as to improve the standard of living of tribals, to develop backward and forward linkages and strengthen the local institutions and to improve the governance system in the tribal villages by strengthening the Community Institutions. FADP, a decadal Perspective Plan is being implemented by converging resources from SCA to TSP, Article, 275(I), MGNREGS, NHM, RKVY, Biju Krushak Vikas Yojana (BKVY) etc aims to cover about 5.12 lakh tribal families with budget of Rs.1569.70 crore. The sectoral interventions taken up under FADP are presented in Table 8.39.

#### Sectoral Intervention under FADP (upto December, 2015)

Sl. No.	Name of the Intervention	ITDA covered	Number of beneficiaries	Expenditure in Rs. Lakh up to December 2015
1	WADI / Horticulture Plantation	17	3682	1258.46
2	Improved Agriculture	7	4581	106.49
3	Vegetable Cultivation	11	1305	90.30
4	Lac Cultivation and Processing	4	223	15.17
5	Rubber Plantation	5	1680	668.00
6	Sericulture	4	1254	43.42
7	Farm Mechanisation	9	1079 families	39.86
8	Coffee Plantation	1	-	29.20
9	NTFP Collection and Marketing	4	30 SHG	45.00
10	Production / Processing Centres	7	-	117.00
11	Poultry Rearing	19	482 families	126.42
12	Dairy	7	23 families	20.46
13	Fishery	8	764 families	21.31

Sl. No.	Name of the Intervention	ITDA covered	Number of beneficiaries	Expenditure in Rs. Lakh up to December 2015
14	Apiculture	2	400 families	16.50
15	Micro Enterprise Development	21	116 SHG	133.44
16	Goat Rearing	4	489 families	12.40
17	Skill Training Programme for Tribal Youth	21	8163	656.37

[Table 8.39]

Source: ST & SC Dev. Deptt.

### Modified Area Development Approach (MADA)

Adopted during the 6th Plan, this programme aims at development of tribal populations residing outside TSP areas in contiguous patches having a population of 10,000 or more, of which, at least 50 percent are tribal's. There are 46 MADA pockets in 47 blocks of 17 districts. These MADA pockets cover 5.68 lakh population. Individual family oriented income-generating schemes for ST communities and critical infrastructure development programmes are implemented in these pockets. There is a MADA Project Level Committee for each MADA pocket under the chairmanship of the Sub-Collector and including officials and non-officials, local MLAs and MPs as members. The committee draws up programmes and oversees their implementation. During 2015-16, Rs.1.98 crore has been spent which benefit 7,449 number of families under SCA to TSP Funds. Under Article 275(I) during 2015-16, Rs.1.67 crore was spent covering 117 numbers of projects.

### Clusters

The cluster approach was introduced during the 7th Plan in order to bring smaller areas with tribal concentrations beyond the MADA pockets into the mainstream of development. Contiguous areas with at least 5,000 population and 50 percent tribal concentration are identified as clusters. There are 14 such

clusters spread over 13 blocks in 10 districts with 62,021 tribal population. The administrative arrangements of these fourteen clusters are similar to those of MADA pockets. For the development of tribals in these clusters in addition to normal programmes, SCA is being provided for the implementation of income generating schemes in group mode and through community benefit oriented programmes. During 2015-16, the total expenditure covering 2,073 families were Rs.0.52 crore under SCA to TSP and Rs.0.30 crore under Article 275(I) with completion of 24 projects.

### Micro Projects

Seventeen Micro Projects have been implemented in the State for all round development of 13 Particularly Vulnerable Tribal Groups (PVTG), recognized by the Government of India, with 78,519 population residing in parts of 20 blocks of 12 districts. Out of these 17 Micro Projects, 13 are located within the scheduled areas and the remaining four outside the TSP area. During 2015-16 (up to December 2015), an amount of Rs. 1.69 crore was utilised out of SCA to TSP and 69 projects were completed covering 6,109 number of families. Under Article 275 (1), an amount of Rs.3.31 crore was utilized for development of projects. 129 projects are completed by the end of December 2015. The Government of India has re-looked at the strategy for development of PVTGs during the 11<sup>th</sup> Plan period (2007-12) and formulated a Conservation-cum-Development (CCD) Plan

with conservation of their culture along with their socio-economic development. This is a modest attempt for holistic development of PVTGs. It addresses the critical needs of the PVTGs by improving infrastructure and providing basic facilities within their easy reach to eliminate poverty, increase literacy levels, improve health status and quality of life, and conserve their traditional culture. Since the socio economic indicator of PVTGs still remain below the State average of other scheduled tribes and general categories the new CCD Plan for 12th plan period (2012-13 to 2016-17) has been prepared as per the guidelines of MoTA, Government of India with different thrust like social sector (Educational Complex for PVTGs boys, health and nutrition and safe drinking water and sanitation) sustainable livelihood development (agriculture, horticulture, animal husbandry, irrigation, social security, promotion of SHG, market linkage), conservation of culture, (construction of community centre, promotion of traditional art, craft and dance, construction of tribal museum), infrastructure development (connectivity, electrification, housing) and capacity building institutional mechanism. During 2015-16, Rs.21.15 crore was sanctioned under CCD plan. But total funds available for expenditure were Rs.48.40 crore up to the end of December'2015. Total 340

numbers of projects have been completed by benefitting 13,055 families.

### Dispersed Tribal Development Programme (DTDP)

The dispersed ST population of the state (27 percent) located outside the ITDA/MADA/Cluster pocket areas, is covered under a special project for tribal development called "Dispersed Tribal Development Programme (DTDP). Odisha scheduled castes and Scheduled Tribes development Finance Co-operative Corporation Ltd., is the nodal agency that operates DTDP for the total dispersed STs. For this population, DTDP has been implemented and has the following salient aspects: (i) to provide subsidy money for various bankable income generating schemes, (ii) to initiate community minor irrigation projects such as LIPs, WHS and Check-Dams, (iii) to conduct training programmes for promoting self-employment and wage-employment and (iv) to enrol ST households as members of cooperatives. Rs.2.90crore was utilised and 6,418 families were assisted during 2015-16. Details of the achievements of different programmes are given in Table 8.40. Strong focus has been made for skill up-gradation and placement linked employability training.

### Achievement under Different SC and ST Development Programmes 2002-03 to 2015-16

(Rs. In lakh)

Year	MADA Project		Cluster project		MICRO project		DTDP	
	Expenditure	No. of families	Expenditure	No. of families	Expenditure	No. of families	Expenditure	No. of families
2002-03	310.16	1505	21.00	166	200.00	11281	174.56	2179
2003-04	583.22	3505	50.00	514	192.00	6680	94.69	1008
2004-05	534.08	3795	50.00	136	194.55	8003	106.49	1156
2005-06	565.78	9285	50.00	384	170.00	11773	187.75	2062
2006-07	610.00	10455	55.00	1128	340.18	5222	344.14	7616
2007-08	585.00	8347	55.00	581	200.00	4087	1409.76	9233
2008-09	700.00	4889	70.00	593	200.00	2096	1179.85	9748
2009-10	610.00	4772	70.00	546	200.00	2038	1200.00	8896
2010-11	843.40	5104	130.90	791	260.02	2015	1012.50	7088

2011-12	766.37	8241	56.30	172	242.03	2621	754.00	9756
2012-13	466.90	6215	47.36	1482	248.34	7433	725.52	8456
2013-14	391.42	101	54.81	1039	265.46	7036	421.39	11980
2014-15	220.00	7542	42.23	701	246.04	6929	173.37	9896
2015-16	364.90	7566	81.64	2073 (24 Projects)	727.32	10766 (190 projects)	290.00	6418

[Table 8.40]

Source: ST & SC Dev. Deptt.

### 8.7.5 Special Plan for KBK districts

The major thrust area of activity under Revised long term Action plan (RLATP) for KBK districts has been promotion of literacy among SC and ST in general and promotion of female literacy in particular by providing scholarships, hostel accommodation and other facilities. Under this scheme special focus has been on promoting of literacy of ST female and male and improving livelihood opportunities for them. A sum of Rs.60.00 crore have been proposed for the year 2015-16 in the Budget Estimate for construction hostels of ST/ SC girls/ boys, B.Ed./CT training college, Nursing/ ANM training schools for ST/SC students in KBK Districts. Up-gradation of High Schools to +2 Colleges in KBK, providing amenities to Tribal Hostels and sports activities in ST girls/ boys schools. Since the scheme has been delinked from the purview of development by Govt. of India and later, it was again decided by the Government of Odisha to continue the scheme with an outlay of Rs. 20.00 crore.

### 8.7.6 Protection of Civil Rights of SC and ST

**Legal aid assistance:** Legal aid is being extended to SCs/STs to fight cases for establishing their rights, titles, interest and possession over disputed land and also for cases under the PCR Act, 1955 and the POA Act, 1989. State government have opened 390 legal aid cells (30 numbers in district head quarters, 46 in sub divisional head quarters

and in 314 blocks of the State). 593 retainers (2 in each Legal Aid Cell) have been selected and engaged. Further, 109 retainers have been selected for their engagement in vacant posts during 2014-15. The retainers have been trained through Video Conferencing for providing free legal services to ST / SC people. The State Government have set 3 special courts in Balasore, Bolangir and Cuttack for speedy trial of cases.

**Inter-Caste Marriages:** Cash incentives of Rs.10, 000 is being provided for inter-caste marriages between SCs and other castes in Hindu communities for social integration and removal of untouchability. This incentive has been revised upward to Rs. 50,000/- since December, 2007. During 2015-16 (upto December 2015) , 558 couples received this incentive amounting to Rs. 267.08 lakh as against Rs.323.76 lakh released in favour of 671 beneficiaries in 2014-15. There have been increasing trend of inter-caste marriages from 197 to 671 between 2009 and 2015.

### 8.7.7 Atrocities against SC/ST communities

It showed declining trend since 4 years from 2013-14 to 2015-16 in terms of the monetary relief released by State Government of Odisha. 1219 SC and ST victims of atrocities received monetary benefits of Rs 386.23 lakh in 2015-16 as against 1,219 SC and ST victims in 2014-15 with a benefit of Rs. 368.23 lakh. The State Government have set up committees i.e. i) State Level High Power Vigilance and

Monitoring Committee, ii) Odisha Schedules Caste welfare Advisory Board, iii) District level vigilance and monitoring committee and iv) Special cell for SC/ST. State Level Security Committee and District Level Vigilance Cells have been established at the State level as well as district level for verification of fake caste certificates. About 4,027 complaints of fake caste certificates have been received up to December, 2015. Enquiry reports in respect of 1,254 cases have been received and 952 cases have been finalized.

Setting up of “SANJOG” Help line developed and maintained by OCAC for public awareness generation programme for redressal of grievances relating to various schemes of Government Departments for implementation of PCR and POA Act. It is available for 24 hours for receiving complaints from SC and ST victims.

### **8.7.8 Distribution of Waste Land/Ceiling Surplus Land to Landless Families**

With the support and assistance of Revenue and Disaster management department of Odisha, ITDAs in the field along with FNGOs are facilitating for providing land to the landless under various existing schemes and Acts i.e. OPLE Act, OGLS Rules, Basundhara and Mo Jami Mo Dhia scheme. Besides, the project facilitated the communities in setting the land rights under Forest Right Act(FRA). The objective is to cover landless households of the programme village's within the project period. As on December 2015 a total number of 3,54,404 titles have been settled and distributed which consists of 3,49,400 individual titles and 5004 community rights title holder. The total area covered towards distribution of title is 7,30,576.03 acres including 5,50,912.53 acres for individual title and 1,79,663.50 acres for community rights holder. Distribution of titles includes 17,807

individual certificates of titles to the PVTGs families involving an area 30,971.75 acres. Till December, 2015, 2,30,416 families have been settled with land under various schemes /Acts. Land allocation and management system have also been developed and implemented for the effective management of the land and has kept the information on landless families.

### **8.7.9 Odisha SC and ST Development Finance Co-operative Corporation (OSFDC)**

Established in 1979-80, OSFDC aims at implementing various economic development programmes for the benefit of poor SC, ST. (DTDP) and scavenger communities of the State under various income generating schemes. During 2015-16, OSFDC financed to Rs.41.88 crore which benefitted 30,293 SCs and 4,730 STs. The detailed picture on the achievement of OSFDC has been presented in Table 8.41 from 2012-13 to 2015-16. Programmes implemented by OSFDC include:

- Special Component Plan for development of SC
- SCA to TSP for dispersed tribals outside ITDA, MADA, Micro Projects and Cluster areas
- Self-employment scheme for Rehabilitation of Manual Scavengers (SRMS)/ dependants
- Term loan scheme for SC, ST, scavengers and minorities with assistance from the National SC and ST Finance Development Corporation (NSFDC), National Scheduled Tribes Finance Development Corporation (NSTFDC) and National Safai Karamchari Finance Development Corporation (NSKFDC)
- For the year 2016-17, the OSFDC has planned to finance 47,899 SC and 7,300 ST beneficiaries.



### Achievement of OSFDC

Sector	2012-13		2013-14		2014-15		2015-16	
	No. of Beneficiaries	Amount Subsidy	No. of Beneficiaries	Amount Subsidy	No. of Beneficiaries	Amount Subsidy	No. of Beneficiaries	Amount Subsidy
SCA to SCP (SC)	20236	1810.51	33449	3237.04	24843	3254.34	30293	3208.13
SCA to TSP (ST)	4707	455.41	11980	741.48	9884	1145.25	4730	980.31
NSLRS/SRMS(scavengers and dependants)	48	3.4	-	-	0	0	-	-
Term Loan Scheme	34	3.4	271	20.33	0	0	-	-

[Table 8.41]

Source: OSFDC, ST & SC Dev. Deptt

#### 8.7.10 Skill Development Training for ST and SC youths

ST and SC Development Department has been implementing Skill Development Training Programmes and Placement Linked Employability Training with an objective of developing employability and entrepreneurship skills among ST and SC youths. These Training Programmes are implemented through the Orissa SC and ST Finance Development Co-operative Corporation Ltd (OSFDC) and Integrated Tribal Development Agencies (ITDA). Training Programmes have been designed to provide better job opportunities to Scheduled Caste and Scheduled Tribe youths with different educational qualifications. Keeping in view the changing liberalized atmosphere and advent of private sector, the skill development programs will equip unemployed youths with multiple skills so as to enable them to get sustainable job engagements in the competitive employment market.

Skill Development Training Programmes are provided on a range of areas over 36 trades including two wheelers technician, diesel mechanic, mason, electrician, driving, Health care, hospitality assistant, plumbing, welding, refrigeration mechanic etc. At present 45 Programme Implementing Agencies have been empanelled with OSFDC for conducting Skill

Development Training. The youth in the age group of 18 to 35 years are selected for the skill development programs. The educational qualifications for skill development trainings vary with the trades where in some courses are offered to even 5th STD pass candidates.

During 2015-16 OSFDC has provided Skill Development Training Programme to 17,807 youths (SC-15,894 and ST-1,913). Similarly, 8855 ST youths have been trained by the 21 ITDAs. The department has also been giving emphasis on placement of ST and SC youths after completion of training. During 2015-16, approximately 15,500 trained SC/ST youths have been placed under different government and private organisations.

#### 8.7.11 Odisha Tribal Empowerment and Livelihood Programme (OTELP)

This programme is being implemented from 2005 by ST and SC Development Department, Government of Odisha with the financial assistance from DFID, IFAD AND WFP to ensure the livelihood and food security of poor tribal household through equitable self-managed and sustainable exploitation of natural resources. Currently, the programme is in its 3rd phase of implementation covering 1,042 villages, 30 blocks of 7 districts and benefiting 56,180 (42,201 STs and 8,069 SCs) households. The

programme covers total 12,395 landless households, 39,474 BPL households and 6,121 vulnerable/destitute households in its different stages of operation. The new OTELP plus covers 585 Micro Water-Sheds (MWS) in 32 Blocks of 9 districts. Government of Odisha have up-scaled the same to nearly 585 MWS in 9 districts covering 1,566 villages and is to be funded out of State Plan and other convergence programme. Development of skill is primarily required for livelihood sustainability. By the end of December 2015, OTELP was conducting different vocational training programme for unemployed youths and trained 3,044 such youths in different institutions. This programme also helps the rural poor not only providing immediate wage employment but also improve natural resources in the long run with ecological balance resulting in improved availability of food and help the poor to get out of poverty. To achieve this poverty eradication goal, OTELP is also trained people regarding the following fields:

- i) Development of cultivable land
- ii) Diversification of cropping
- iii) Inter cropping system
- iv) Sequential cropping
- v) Introduction of new crops and varieties
- vi) Vermicomposting
- vii) Promoting Farm Mechanization
- viii) Water resource development

### **8.7.12 Academy of Tribal Language and Culture (ALTC)**

Academy of Tribal Language and Culture" (ATLC), a Government of Odisha organization, functions with a view to develop tribal languages and their cultural heritage in

the State. Major activities of ATLC for the year 2015-16 are as follows;

- i) A series of bilingual dictionaries, folklore, journal "SARGIFUL", and "BANAJA", Bhasa Sikhya Pustika. etc relating to Bhatra, Binjhal-Kondhan, Munda, Gondi, Bhuiya, and Khadia, etc languages and folk traditions were published by the Academy.
- ii) Twenty tribal talents were felicitated on 26th January 2016 in different fields such as dance, music, art, craft, literature, social service etc.
- iii) Three language training programme on Bhotra, Gondi and Desia were organized.
- iv) Academy sponsored 12 Tribal Dance troupes to 9 different tribal Mohotsavs inside the State.

### **8.7.13 SC and ST Research and Training Institute (SCSTRTI)**

This is the premier and oldest tribal research institute in the country established in 1952. The institute received the nodal status for the country in 2008-09 on the merit of its impressive performance. This institute has also been recognised as the National Resource Centre in December, 2014 by MoTA, Government of India. The tribal museum of the institute has been identified as Model Interactive Tribal Museum by UNESCO. It publishes the research journal titled the "ADIVASI" (bi-annual) under the theme-tribal society, culture, problems and developments. Its activities during 2015-16 are summarized below:

- 10 research and evaluation studies were undertaken and completed relating to safety and security tribal girl child in residential school, Forest Right Act (FRA) 2006, development project and

displaced tribals, intangible cultural heritage of PTGs of Odisha, Impact of EMRS in enhancing the educational attainment of ST children, CCD Plan (2015-20) etc.

- The Institute has conducted 50 numbers of training programmes and six (6) State level seminar / workshop and National level seminar.
- The Institute has a unique and specialized ethnographic tribal museum in its sprawling campus, which is one of its star attractions.
- Empirical ethnic status studies have been taken up for “Swalgi” and “Bhuiyar” communities. The Ethnic status reports on these communities have been prepared and submitted to Government for their inclusion in the SC and ST list respectively.
- National Tribal Craft Mela was organised from 18th to 24th November 2015 by SCSTRTI in collaboration with NSTFDC, New Delhi and support from MoTA, Government of India.
- To promote and popularise the tribal dance and songs during 2015-16, National Tribal Dance Festival was organised by SCSTRTI in collaboration with IGRMS, Bhopal, Madhya Pradesh and ATLC, Bhubaneswar from 15th to 17th December, 2015.

#### **8.7.14 Tribal Development Co-Operative Corporation of Odisha Ltd (TDCCOL)**

This is the apex organization that functions mainly in the TSP area since 1971-72. Its field outlets include thirteen branch offices located in tribal areas of ten districts. It has 96 storage go-downs with 38,616 MTs capacity located

in TSP areas. Its objective is to ensure fair and remunerative prices to primary tribal collectors of minor forest produce items by providing marketing linkages and granting consumption-cum-production loans to tribals in order to protect them from money lenders. During 2015-16, the following major activities were taken up by the TDCCOL:

- i) Grant-in-aid/ managerial subsidy of Rs 4.75 crores have been released in favour of the corporation.
- ii) Forward sale of MFP and SAP items made through competitive bidding to ensure fair and remunerative prices to the tribals. Total annual transaction of TDCCOL on MFP and SAP reported during 2014-15 is about Rs.52.12 lakh and for 2015-16 it is 22.00 lakh upto December 2015.
- iii) Handicrafts/handlooms/tribal paintings under Trade mark ‘TRIBEODISHA’ and MFP and SAP products under ‘ADISHA’ received wide accreditation among urban consumers.
- iv) TDCCOL and OMFED collaborated to supply various cattle feed items.
- v) Series of capacity building programmes made for primary honey hunters beneficiaries.
- vi) Series of trainings made for tribal WSHGs members on processing of Siali leaf plates in Baliguda and Kandhamal.
- vii) TDCCOL has partnered with HPCL and BPCL petroleum companies and operates Petrol pumps. Four sites proposed for opening petrol outlets are at Mohana and Chandragiri of Gajapati, Baliguda of Kandhamal and Khuntugaon in Sundargarh.

- viii) Launching the “Innovative Marketing Van” and “Tribal World Outlet” to facilitate the marketing of various exclusive products on wheel at strategic locations in and around Bhubaneswar.
- ix) TDCCOL has launch couple of products like, Lemon Grass oil, Kusum oil, Neem oil and also a cool range of handloom and handicrafts has also been flooded with in the stores.
- x) TDCCOL has opened a souvenir shop in the campus of SCSTRI, CRP square, Bhubaneswar to create platform for the tribal community to attract the local and foreign tourists and the SHG to earn their sustainable livelihood.
- xi) A Tribal Food Court has also been opened at SCSTRTI, CRP Square, Bhubaneswar

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# 9

## Public Finances

**A** sound infrastructural foundation is the key to the overall socio economic development of the State which acts as a magnet to attract investment into the State and also help in improvement of the quality of life of the people. In keeping with this objective, the State Government have been consistently increasing the investment in key infrastructures like road, railways, ports, airports, irrigation, power etc. The public investment in creation of physical infrastructure has been consistently rising so much so that the capital outlay constitutes about 5 percent of the Gross State Domestic Product in 2015-16. The State Government is also laying emphasis on Social Sector Development. It is an essential pre-requisite for human and economic development of the State. It builds of a strong edifice for stimulating the growth of the economy and enhances the quality of life of the people. The objective is to prepare a healthy, educated and appropriately skilled work-force so as to increase employment opportunities, productivity gains and raising the income levels. Government has also focused on generation of employment opportunities through skilled manpower. All these developmental efforts have resulted in increase of annual per capita income from Rs.11935 in 1999-2000 to Rs.75223 in 2016-17.

## 9.1 Introduction

The economy of the State and its public finances are interdependent. They influence each other. The economy has been growing at a comparatively higher rate since 2002-03 onwards. It grew at an annual real average rate of 8.82% at 2004-05 prices during the 10th Plan (2002-07) and 7.05% during the 11th Plan (2007-12). Continuing the momentum, the State has achieved an annual real average growth rate of 6.66% during the 12th Plan (2012-17) period at 2011-12 prices though the economy slowed down with a low growth rate of 4.61% in 2012-13 at market prices in real terms. The advance estimates of Gross State Domestic Product (GSDP) for the year 2016-17 at constant 2011-12 prices is likely to attain a level of Rs.3,14,364 crore anticipating a rise of 7.94% over the 1st revised estimate for the year 2015-16.

The State finances were on a unsustainable path with high deficit and debt levels. Through a slew of fiscal consolidation measures, the deficit and debt levels have been brought down. The fiscal space generated is being utilized to meet the developmental needs. The Budget size has also increased manifold from Rs.11801 crore in 1999-2000 to Rs.94,053 crore in 2016-17. The State Plan outlay has also gone up substantially from Rs.3352 crore in 1999-2000 to Rs.50000 crore in 2016-17.

*The following important developments at the national level in the current financial year will impact the state's economy and finances*

## 9.2 Demonetisation and State's Economy

High value notes of Rs.500 and Rs.1,000 ceased to be legal tender with effect from midnight of 8<sup>th</sup> November, 2016. Emphasis was laid on switching over to cashless mode of transaction through digital means. It created

a shortage of cash in the system causing temporary discomfort for the general public and businesses particularly in the interior parts of the State. Demonetization created unavoidable welfare losses to the poorer sections of the society who earn their income based on their daily work, and particularly for those who are not familiar with digital payment system. Overall economic activities have slowed in the short term. Economic activities have been affected in the informal sectors of the State more so in the manufacturing and services sector especially in construction, retail trade, transport, hotels & restaurants and communication segments which are cash intensive.

It has slowed down the State's economy and affected the public finances. It is evident from about 7% decline in the own tax collection in December, 2016 over the previous month of November.

A less-cash environment is completely dependent on a robust digital payments ecosystem, which is still at a nascent stage. It is also dependent on a banking network. At present, out of 6238 Gram Panchayats of the State, as many as 4597 GPs were identified as un-banked in 2014. There is a need for a branch of a scheduled commercial bank in each of the Gram Panchayats of the State. It was brought to the notice of Government of India that deficiency in banking infrastructure, telecom mobile and internet connectivity in Odisha stand in the way of full scale adoption of digital payment system. Government of India were impressed upon to make good these deficiencies and also rationalise the charges for digital payments and take suitable measures to make it safe, secure, accessible as well as inter-operable across intermediaries.

### 9.3 Goods & Services Tax (GST)

Goods & Services Tax (GST) is the culmination of a series of efforts initiated by Government of India since February, 2007 when the Empowered Committee of State Finance Ministers was tasked with preparation of a road map for introduction of GST in 2010. The State Assembly unanimously passed a resolution ratifying the Constitution 122nd Amendment Bill, 2014 on GST on 1<sup>st</sup> September 2016. The State has actively participated in all GST Council meetings in order to present the views of the State in an effective manner on all issues concerning proposed laws, rules, processes and systems for GST. The State has to establish the legal framework through enactment of the GST laws by the Centre & the States, put in place a robust Information Technology based platform for administering the new tax, manage the change through training of the tax administrators & officials, familiarize the members of trade & industry with the processes of the new taxation system and sensitize the public about its effect. These are the challenges before the State to roll out GST next year.

The model GST law has been drafted and discussed in GST Council. The GST Council has also decided the bands of tax rates for GST. It has constituted a Committee to study individual goods and feed them into the category of tax rates. Cross empowerment is being provided in the Acts so as to avoid dual authority over tax payers. The State authorities will be empowered to administer the CGST and IGST Act and so also the Central Authorities would be empowered to administer SGST Act. The calculation of revenue base of States and the formula for compensation on account of loss have been decided. The threshold limit for registration

and the compounding limits have also been agreed upon. Consensus on these issues will pave the way for introduction of GST between July to September, 2017.

A number of benefits are expected to accrue not only to the Central & State Governments but also to the consumers, business & industry in the ensuing GST regime. Under the GST model, all the Central and State Government taxes will be merged into a single tax, which will reduce cascading or the double taxation effect.

Relook at FRBM Act : The State Government have amended the FRBM Act, 2005 on the basis of recommendations of the 13th Finance Commission. The FRBM (Amendment) Act, 2011 has made it mandatory for the State to generate revenue surplus, keep the fiscal deficit within 3% of GSDP, achieve Debt/GSDP ratio of 25% at Finance Commission recommended level. Further, Fourteenth Finance Commission in the Fiscal Consolidation Roadmap have set fiscal deficit targets for States in keeping with the parameters of debt sustainability and the medium term requirements of equitable and sustainable growth and relaxed the rigid application of uniform fiscal targets for all States with year to year flexibility and additional headroom to a maximum of 0.5% to the States that have a favourable Debt-GSDP and interest payment-revenue receipt ratio. It allows additional 0.25% of fiscal deficit, if the debt to GSDP ratio is less than or equal to 25% in the preceding year and another 0.25% if the interest payments are less than or equal to 10% of the revenue receipts in the preceding year provided there is no revenue deficit in the year in which borrowing limits are to be fixed and the immediately preceding year. The State Government has amended the FRBM Act, 2005 on the basis of the

recommendation of the 14<sup>th</sup> Finance Commission for enabling enhanced Fiscal Deficit limit. Government of India had constituted a Committee in May, 2016 to review the Fiscal Responsibility and Budget Management (FRBM) Act under the Chairmanship of Shri N.K. Singh, former Revenue and Expenditure Secretary and former Member of Parliament. The Committee had wide ranging Terms of Reference to comprehensively review the existing FRBM Act in the view of contemporary changes, past outcomes, global economic developments and best international practices in order to recommend the future fiscal framework and roadmap for the country. Subsequently, the Terms of Reference were enlarged to cover certain recommendations of the Fourteenth Finance Commission and the Expenditure Management Commission. The objective is to strengthen the institutional framework on fiscal matters. The committee in course of its interaction with various stakeholders also consulted with the States. The Committee submitted its Report in January 2017 which is being considered by Government of India.

#### 9.4 Fiscal Situation till 2015-16

The overall fiscal scenario of the State continued to be broadly satisfactory over the years. The basic prudential policy of maintaining revenue account surpluses to finance the capital outlays continued to be successfully implemented since 2005-06 thereby reducing the need for incurring fresh debt. Simultaneously, more fiscal space has been generated to enhance the capital expenditure for development of the State. However, there are certain inherent risk factors confronting the State.

Low growth in collection from VAT and mining royalty during 2016-17 which are major sources of State's Own Tax and Non Tax Revenue are areas of concern. The State Government has set up the fitment committee for implementation of 7th Central Pay Commission for its employees and pensioners. There will be pressure on the expenditure front on account of revision of pay and pension of the State Government employees and pensioners.

However, there has been a remarkable growth in total revenue receipt over the years which has increased the revenue base substantially. The total revenue receipt of the State was Rs.40267.02 crore in 2011-12 which is expected to be raised to Rs.78126.71 crore in 2016-17 (BE) registering a growth of 94.02% during the period. The growth in revenue receipt during 2016-17 is expected to be 13.32% over 2015-16. The capital outlay as per 2016-17 (BE) is Rs.16749.70 crore which was only Rs.4496.09 crore in 2011-12. The total expenditure under consolidated fund has been estimated to be Rs.94052.65 crore in 2016-17 (BE) which is 18.88% more than the actual expenditure of Rs.79114.09 crore made during 2015-16.

Figure 9.1 presents the trends in broad fiscal aggregates that sum up the fiscal position of the State. Total revenue receipts (as % of GSDP) have gone up from 16.78% in 2013-14 to 17.70% in 2014-15, 20.16% in 2015-16 & 20.61% in 2016-17 (BE). The central transfers as a percentage of GSDP (that includes both shared taxes and grants), after dropping noticeably in 2012-13 and 2013-14, have increased from 2014-15 onwards mainly due to the transfer of Central Assistance for 66 restructured Centrally Sponsored Schemes (CSS) through Consolidated Fund of the State and discontinuance of the previous practice of

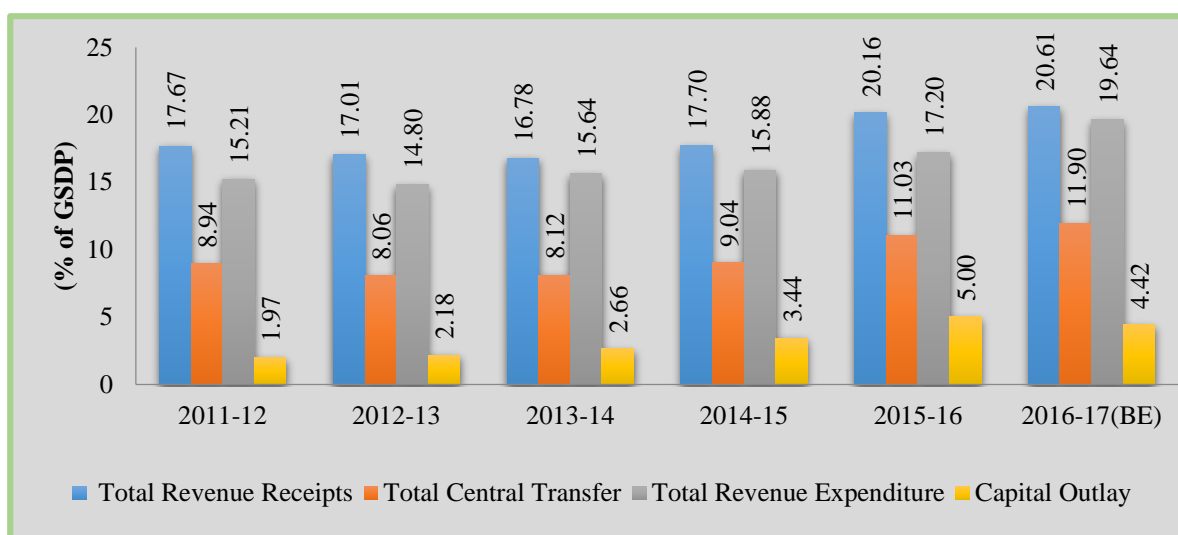


direct transfer of central assistance to various implementing agencies.

Revenue expenditures were also higher at 17.20% of GSDP in 2015-16 as compared to 15.88% in 2014-15. The State could exceed the capital outlay level of 3% of GSDP in

2015-16 with the actuals at 5% of GSDP. The Total Revenue Receipt and Total Revenue Expenditure are budgeted at 20.61% and 19.64% of GSDP respectively in 2016-17. The Capital Outlay is estimated at 4.42% of GSDP in 2016-17

### Broad Fiscal Trends in Odisha



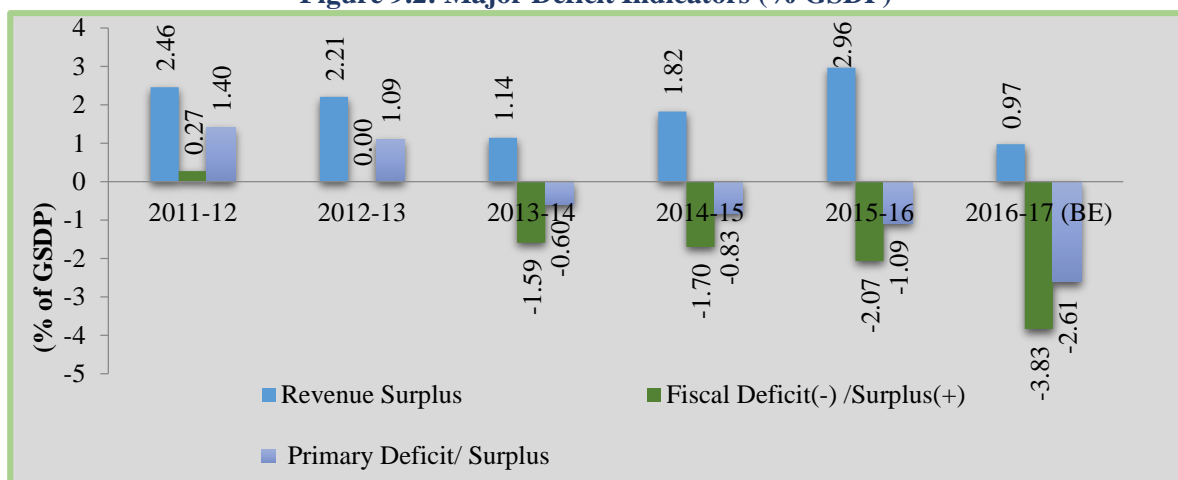
[Figure 9.1]

Source ; Finance Department Govt. of Odisha

The fiscal deficit which indicates the net borrowing of the states is going up since 2012-13, because of financing higher capital outlay. The zero fiscal deficit position in 2012-13 has gone up to (-)2.07% of GSDP in 2015-16. This implies the revenue surplus and entire

borrowing during this time period has financed higher capital outlay to the extent of 5% of GSDP. It is budgeted at 4.42% of GSDP in 2016-17. Figure 9.2 depicts the trends of the major deficit indicators.

### Figure 9.2: Major Deficit Indicators (% GSDP)



[Figure 9.2]

Source ; Finance Department Govt. of Odisha

Fiscal consolidation in Odisha has been undertaken under a rule based framework through the enactment of Odisha Fiscal Responsibility and Budget Management (FRBM) Act, 2005. The management of State finances in Odisha is guided by FRBM Act, 2005 and the recommendation from successive finance commissions.

### 9.5 Trends in State's Own Revenue

The State's Own Revenue (SOR) as proportion of GSDP has improved from 8.73% in 2011-12 to 9.14% in 2015-16. The rising trend is mainly driven by State's Own Tax

Revenue (SOTR). The deterioration in collection of State's Own Non Tax Revenue (SONTR) as proportion of GSDP from 2013-14 onwards is due to lower receipt of mining revenue due to fall in metal prices in international market. The budget estimate of SOR is pegged at 8.71% of GSDP in 2016-17.

### 9.6 Trends in State's Own Tax Revenue

The tax structure of the State has been subtly changing over the years, and particularly in the recent period. The trends in collection of taxes as percentage of GSDP are presented in the table 9.1.

**Trends in Collection of Taxes (percent of GSDP)**

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (BE)
Sales Tax (VAT)	3.60	3.74	3.68	3.67	3.83	3.59
State Excise	0.61	0.57	0.61	0.62	0.74	0.79
Stamp Duty & Regn Fees	0.22	0.20	0.21	0.24	0.63	0.27
Entry Tax	0.58	0.51	0.55	0.52	0.49	0.57
Motor Vehicle Tax	0.35	0.28	0.29	0.27	0.31	0.32
Electricity Duty	0.24	0.22	0.23	0.53	0.35	0.36
Land Revenue	0.23	0.15	0.15	0.19	0.17	0.16
Profession Tax	0.06	0.04	0.05	0.04	0.05	0.05
Other Taxes	0.03	0.02	0.02	0.00	0.01	0.01
Total :	5.90	5.82	5.79	6.16	6.59	6.12

**Table 9.1:**

Source ; Finance Department Govt. of Odisha

The collection of Sales Tax (VAT and CST), being the consumption based tax, is growing since 2011-12 and it has reached to 3.83% of GSDP in 2015-16 from 3.60% in 2011-12. It is targeted at 3.59% of GSDP in 2016-17(BE). Followed by VAT, the collection of State Excise and Entry Tax are budgeted at 0.79% and 0.57% of GSDP during 2016-17. In this period, the entry tax has exhibited a fluctuating trend. A fluctuating trend is also observed in case of Motor Vehicle Tax and Stamp & Registration fee. Tax on Profession has been stagnating between 0.04% & 0.06% of GSDP during this period.

### 9.7 Trends in State's Own Non-Tax Revenue

Mobilization of resources through non-tax sources serves the twin purpose of having a rational non-tax structure and generating resources to finance more expenditure. During 2011-12 to 2016-17(BE), the growth rate of collection of State's Own Non Tax Revenue has been uneven. This high variation is mainly attributed to receipts from sources like Mining Royalty, Interest, Dividend, and receipts from Forest and Irrigation sectors. The degree of unevenness in the collection of non-tax from Non-Ferrous Mining Metallurgical Industries

is highest because of volatilities in the global non-ferrous and metal prices. The SONTR as proportion of GSDP is estimated at 2.59% for 2016-17(BE) which was 3.13% in 2012-13 & 2.55% in 2015-16. The SONTR constitutes

only 28% of the State Own Revenue for 2015-16. Table 9.2 presents the trends in collection of non-tax components as proportion of GSDP.

**Trends in Major Non Tax Components (% GSDP)**

Non Tax Components	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (BE)
Interest	0.25%	0.23%	0.43%	0.10%	0.16%	0.08%
Dividend	0.13%	0.22%	0.16%	0.33%	0.16%	0.26%
Education	0.01%	0.03%	0.03%	0.01%	0.02%	0.02%
Medical	0.02%	0.00%	0.01%	0.01%	0.02%	0.01%
Water Supply & Sanitation	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
Housing	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
Forest & Wildlife	0.08%	0.07%	0.03%	0.02%	0.04%	0.01%
Irrigation	0.15%	0.15%	0.15%	0.20%	0.21%	0.17%
Non-Ferrous Mining & Metallurgical Industries	2.01%	2.21%	1.89%	1.65%	1.70%	1.77%
Others	0.16%	0.18%	0.15%	0.16%	0.21%	0.24%

**Table 9.2**

Source ; Finance Department Govt. of Odisha

The collection in 2016-17(BE) from Non-Ferrous Mining & Metallurgical Industries (Mining Royalty) is estimated at 1.77% of GSDP followed by Dividend at 0.26% of SONTR. Revenue collection from Major, Medium & Minor Irrigation is expected at 0.17% and collection from interest receipt is pegged at 0.08% of GSDP in 2016-17.

## 9.8 Central Transfers

Central transfers comprise of share in central taxes (devolution from the Centre) and grants from centre. The Central transfers as proportion to GSDP as well as proportion to Total Revenue Receipt are presented in Table 9.3.

**Trends in Central Transfers**

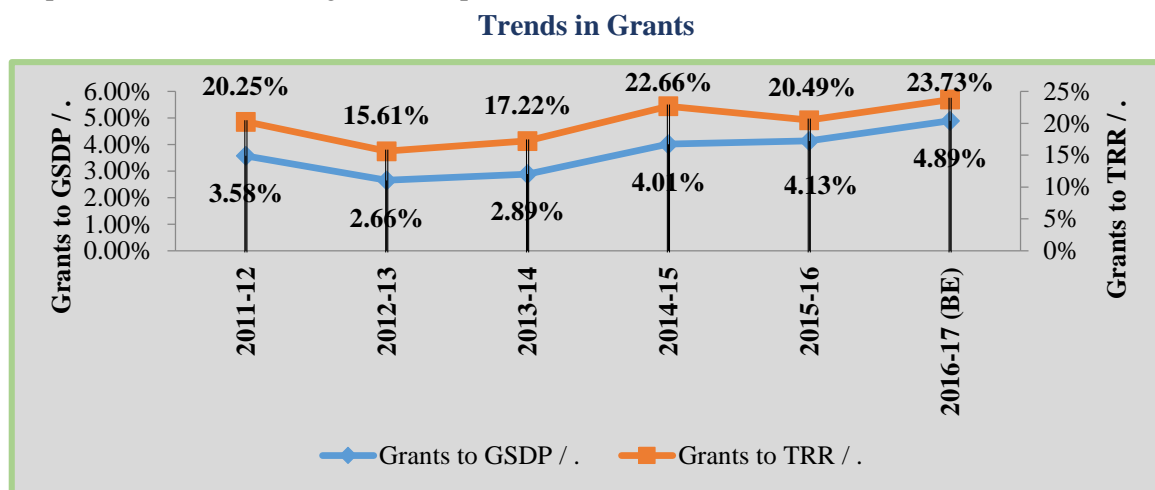
Year	Shared Tax (Rs. Cr)	Grants (Rs. Cr)	Central Transfer	% of TRR	% of GSDP
2011-12	12229.09	8152.19	20381.28	50.62%	8.94%
2012-13	13965.01	6859.73	20824.74	47.40%	8.06%
2013-14	15247.09	8429.42	23676.51	48.37%	8.12%
2014-15	16181.22	12917.5	29098.72	51.05%	9.04%
2015-16	23573.79	14129.46	37703.25	54.69%	11.03%
2016-17 (BE)	26567.56	18536.22	45103.78	57.73%	11.90%

**Table 9.3:**

Source ; Finance Department Govt. of Odisha

In 2012-13 and 2013-14, the Central Transfers as a percentage of TRR and GSDP has declined mainly due to decline in Grants as proportion to both GSDP and TRR. Figure 9.3 presents the trends in grants component.

However, the Central Transfers as a percentage of TRR and GSDP shows an upward trend in 2015-16 and 2017-18(BE) mainly due to increased devolution.



[Fig 9.3]

Source ; Finance Department Govt. of Odisha

The share of central transfer to total Revenue Receipt in case of Odisha has been over 50% over the years. However, the trend was reversed in 2012-13 and 2013-14 when the Central transfer fell below 50% due to lower central transfer in shape of grants. However, consequent upon the decision to route the Central Assistance for 66 restructured CSS

through State Budget, portion of central transfer in total revenue receipt of Odisha has increased to 54.68% in the year 2015-16 & it is expected to remain at 57.73% in 2016-17(BE). Table 9.4 provides trends in components of central grants received by the Government of Odisha in recent years

#### Grants Received by Government of Odisha from the Centre

(Rs. in Crore)

Category of Grants	2011-12	2012-13	2013-14	2014-15	2015-16
Grants-in-aid from central government	8152.19	6859.73	8429.42	12917.50	14129.46
a. Non-Plan grants	2561.48	1505.49	2729.19	1929.34	3062.64
b. Grants for state Plan schemes	3853.22	3483.61	3429.46	10886.18	10773.41
of which, Block grants	3451.77	3219.57	3095.50	1331.47	87.57
c. Grants for central Plan schemes	108.60	183.00	121.67	101.90	293.37
d. Grants for centrally sponsored schemes	1628.89	1687.63	2149.11	0.08	0.04

[Table 9.4]

Source: Finance Accounts, various issues

## 9.9 Public Expenditure Trend

Revenue expenditures and capital outlay have been fluctuating around 15% and 2% of GSDP respectively during 2011-12 & 2012-13. Clearly, the intended push to capital outlay was not materializing despite higher budgetary allocations, primarily because of institutional constraints. However, it has increased to 3.4% in 2014-15 & 5% in 2015-16 respectively. The capital outlay in the budget estimates for the

year 2016-17 is expected to be at 4.42% of GSDP. Simultaneously, revenue expenditure is expected to increase significantly to 19.64% of GSDP during the year. The structure of revenue expenditure in terms of distribution among broad groups of expenditure remains stable, with small year-to-year changes. Figure 9.4 summarizes the structure of revenue expenditure. The share of General, Social & Economic Services is fluctuating over the years.

Composition of Revenue Expenditure in Odisha ( percent)

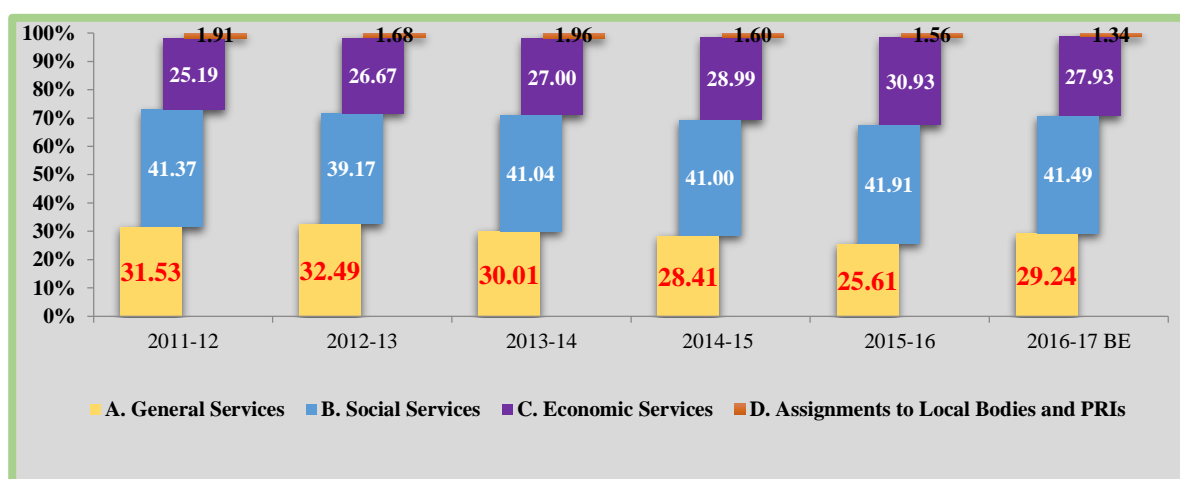


Figure 9.4

Source ; Finance Department Govt. of Odisha

## 9.10 Trends in components of Revenue Expenditure

The composition of revenue expenditure by budgetary categories in detail is provided in

Table 9.5. While pensions are seen to be outstripping interest payments in recent years, expenditure on each of the key areas within social and economic services is seen to have grown apace.

Composition of Revenue Expenditure in Odisha

(Rs. Crore)

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>Total Revenue Expenditure</b>	<b>34660.24</b>	<b>38237.56</b>	<b>45617.75</b>	<b>51135.74</b>	<b>58805.71</b>	<b>74443.38</b>
<b>A. General Services of which</b>	<b>10928.58</b>	<b>12423.26</b>	<b>13689.41</b>	<b>14528.86</b>	<b>15058.66</b>	<b>21763.77</b>
1. Interest Payments	2576.43	2807.23	2888.22	2810.27	3343.30	4650.00
2. Pensions	4740.76	5379.37	5935.17	6416.62	6346.22	9495.00
<b>B. Social Services of which</b>	<b>14338.07</b>	<b>14976.56</b>	<b>18721.55</b>	<b>20964.13</b>	<b>24643.16</b>	<b>30888.77</b>

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
1. General Education	6647.48	7050.73	8065.60	9585.74	10826.04	13227.99
2. Medical and Public Health	1129.34	1467.34	1630.98	2512.66	2988.57	3755.71
3. Water Supply and Sanitation	563.16	598.39	719.94	1051.98	1989.38	1955.12
<b>C. Economic Services of which</b>	<b>8732.47</b>	<b>10196.24</b>	<b>12314.59</b>	<b>14825.38</b>	<b>18188.12</b>	<b>20791.15</b>
1. Agriculture and Allied Services	3165.99	4104.23	4701.12	5613.46	5802.49	6955.38
2. Rural Development	1836.96	2178.70	2983.63	4446.25	7400.21	8144.67
3. Irrigation and Flood Control	860.24	1043.22	1397.05	1376.40	1812.85	1914.09
4. Roads and Bridges	1177.10	1536.76	1693.89	1884.36	1829.26	2354.73
<b>D. Assignments to Local Bodies and PRIs</b>	<b>661.11</b>	<b>641.49</b>	<b>892.20</b>	<b>817.37</b>	<b>915.76</b>	<b>999.70</b>
Memo Item:						
<b>Salaries and Wages</b>	<b>9081.77</b>	<b>9515.42</b>	<b>11004.89</b>	<b>15365.21</b>	<b>17413.96</b>	<b>20341.76</b>

[Table 9.5]

Source ; Finance Accounts (various issues) and Budget Document, 2016-17

Table 9.6 provides the sector wise contribution to the revenue expenditure. The Developmental Services Sector contributes around 69 % of the total revenue expenditure in the budget estimate of 2016-17. In the Developmental Sector, more emphasis is given to Social Services Sector as compared to

Economic Services Sector. This is on account of the outcome of policy orientation towards the inclusive growth. General Education in Social Services Sector and Rural Development in Economic Services Sector are given higher allocation.

#### Composition of Revenue Expenditure in Odisha (in %)

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>Total Revenue Expenditure</b>	100.00	100.00	100.00	100.00	100.00	100.00
<b>A. General Services</b>	31.53	32.49	30.01	28.41	25.61	29.24
Interest Payments	7.43	7.34	6.33	5.50	5.69	6.25
Pensions	13.68	14.07	13.01	12.55	10.79	12.75
<b>B. Social Services</b>	41.37	39.17	41.04	41.00	41.91	41.49
1. General Education	19.18	18.44	17.68	18.75	18.41	17.77
2. Medical and Public Health	3.26	3.84	3.58	4.91	5.08	5.05
3. Water Supply and Sanitation	1.62	1.56	1.58	2.06	3.38	2.63
<b>C. Economic Services</b>	25.19	26.67	27.00	28.99	30.93	27.93
1. Agriculture and Allied Services	9.13	10.73	10.31	10.98	9.87	9.34

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
2. Rural Development	5.30	5.70	6.54	8.69	12.58	10.94
3. Irrigation and Flood Control	2.48	2.73	3.06	2.69	3.08	2.57
4. Roads and Bridges	3.40	4.02	3.71	3.69	3.11	3.16
<b>D. Assignments to Local Bodies and PRIs</b>	1.91	1.68	1.96	1.60	1.56	1.34
Memo Item:						
<b>Salaries and Wages</b>	26.20	24.89	24.12	30.05	29.61	27.33

[Table 9.6]

Source ; Finance Accounts (various issues) and Budget Document, 2016-17

### 9.11 Composition of Outstanding Debt Stock and Outstanding Liability

The Outstanding Public Debt and Outstanding Borrowing from State Provident Fund constitute outstanding Debt Stock of the State. Outstanding Public Debt, Outstanding

Borrowing from Public Accounts and Contingency Fund constitute total Liability of the State. In 2011-12, the share of debt stock to total liability was 80.60% which has marginally reduced to 79.20% in 2015-16. The trend in composition of liability as proportion to GSDP is given in table 9.7.

#### Trends in Composition of Liability (% of GSDP)

Sl. No.	Liabilities	2011-12	2012-13	2013-14	2014-15	2015-16
<b>1</b>	<b>Consolidated Fund</b>	<b>10.80</b>	<b>9.03</b>	<b>7.99</b>	<b>8.34</b>	<b>9.87</b>
	<b>Public Debt (a+b+c+d+e+f)</b>					
a	Open Market Borrowings (Net SLR based Market borrowings)	2.24	1.47	1.00	1.42	2.38
b	Borrowings from Banks and FIs/ Negotiated Loans	1.45	1.31	1.35	1.55	1.97
c	Special Securities issued to NSSF	3.72	3.33	3.08	3.13	3.41
d	Bonds/ Debentures which are issued by the State Government	0.19	0.13	0.08	0.03	0.00
e	Loans from Centre (Net)	3.19	2.79	2.48	2.21	2.12
f	Other Liabilities	7.78	6.39	5.60	6.25	7.87
<b>2</b>	<b>Public Accounts (a+b+c)</b>	<b>10.04</b>	<b>9.89</b>	<b>9.23</b>	<b>9.06</b>	<b>9.22</b>
a	State Provident Funds	6.13	5.68	5.26	5.10	5.34
b	Small Savings, Insurance and Pension Funds, Trust and Endowments, etc	0.00	0.00	0.00	0.00	0.00
c	Other items in Public Accounts of which	3.91	4.22	3.97	3.96	3.88
	i. Deposits	1.57	2.00	2.05	2.14	2.08
	Bearing Interest	0.03	0.03	0.02	0.01	0.01
	Not Bearing Interest	1.53	1.97	2.03	2.13	2.07
	ii. Reserve Funds/ Sinking Fund	2.34	2.22	1.92	1.82	1.80

Sl. No.	Liabilities	2011-12	2012-13	2013-14	2014-15	2015-16
	Bearing Interest	0.13	0.07	0.02	0.01	0.09
	Not Bearing Interest	2.21	2.14	1.90	1.81	1.70
3	Contingency Fund	0.17	0.15	0.09	0.12	0.12
	<b>Total Liabilities (1+2+3)</b>	<b>21.01</b>	<b>19.08</b>	<b>17.31</b>	<b>17.52</b>	<b>19.21</b>

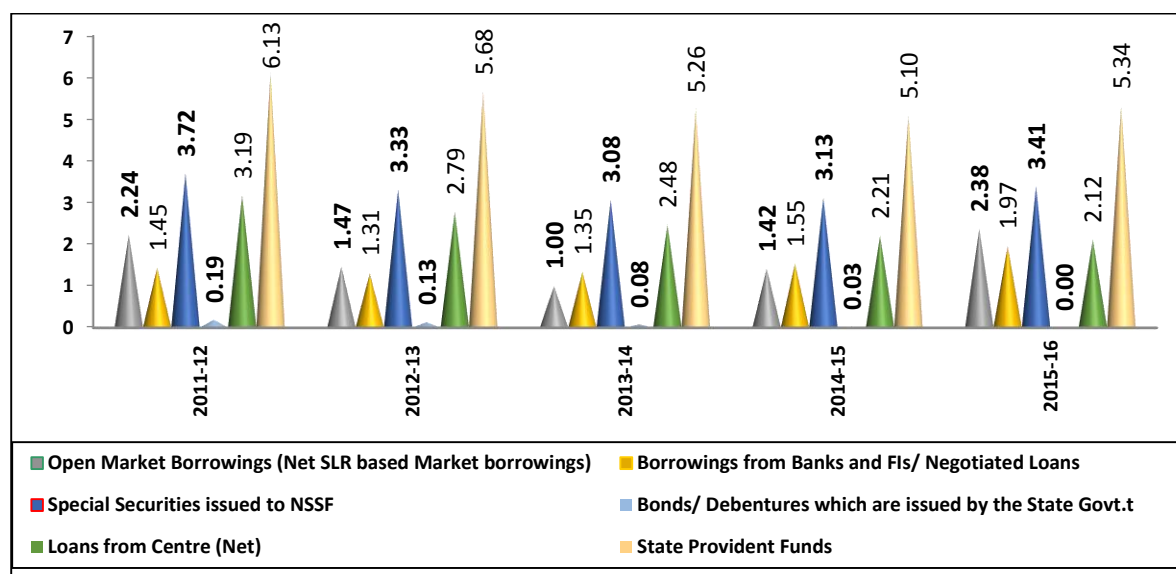
[Table 9.7]

Source : Finance Accounts (various issues) and Budget Document, 2016-17

Figure 9.5 presents the trends in the composition of debt stock to GSDP Ratio. The declining trend is observed in most of the components of the debt stock. Outstanding debt on account of State Provident Fund as proportion to GSDP has declined from 6.13% in 2011-12 to 5.34% in 2015-16. Debt on account of NSSF as proportion to GSDP has declined from 3.72% in 2011-12 to 3.41% in

2015-16. However, the negotiated loan from the Financial Institutions and Banks has increased from 1.45% of GSDP in 2011-12 to 1.97% in 2015-16. Debt due to Open Market borrowing through State Development Loan has increased from 2.24% of GSDP in 2011-12 to 2.38% of GSDP in 2015-16. Loans from Centre have also come down from 3.19% of GSDP in 2011-12 to 2.12% in 2015-16.

### Composition of Debt Stock as % of GSDP



[Figure 9.5]

Source : Finance Accounts (various issues) and Budget Document, 2016

One of the reasons for the continuous decline in debt components is to keep fiscal deficits below the prescribed level under the fiscal responsibility legislation which reduces net debt burden of the State. If growth in GSDP exceeds the growth in outstanding debt, debt

to GSDP ratio will decline and will be below the FRBM stipulation. Higher growth rate in GSDP compared to growth in debt stock coupled with low cost of borrowing has made the fiscal policy of the State sustainable and has created solvency in debt. FRBM



legislation as a fiscal policy rule has helped to achieve stability in State Finance and efficiency in expenditure allocation.

Now the State's finances are considerably stable, the tasks of further improving the quality expenditure, regular expenditure review, expanding the coverage of public services, and of investing in social and physical infrastructure are very critical to achieve higher inclusive growth rate on sustainable basis. In order to fulfill this objective the State has to go for higher capital receipts to fund capital outlay in developmental sectors as there is capacity to sustain additional debt burden and the State economy has reached a stage wherein it can absorb higher capital outlay after the fiscal stabilization.

### 9.12 Strengthening Financial Management System in Government

The State Government attaches priority to improvement in public spending and productivity. A number of reform measures in budgetary & expenditure management have

been initiated. Some of the important measures are :-

**i) Integrated Financial Management System (IFMS) :** Odisha is one of the front runners in the country in automation of Treasury Management and have graduated to an Integrated Financial Management System (IFMS). It has received 'Award of Recognition – Sustenance' as a part of Computer Society of India (CSI) – Nihilent e-Governance Award, 2015-16. Important Financial Management functions starting from budget formulation, budget execution, receipts and expenditure reconciliation, generation of electronic accounts to online monitoring of audit compliance are being carried on electronically through Integrated Financial Management System. Further, the Sanction Order repository has been made operational and the Fund Management module encompassing cash and Debt Management functions is being developed. It has been integrated with e-Kuber platform of Reserve bank of India which facilitates all receipts and payments transactions through electronic mode in a bank-neutral platform.

Odisha Treasury Management System started its electronic disbursement function through the RECS platform of Reserve Bank of India from 1st August, 2012. Its electronic receipt module, Cyber Treasury was made operational earlier through the payment gateways of various Agency Banks in February, 2010. The reporting of these electronic receipts is now being made in a consolidated manner through Reserve Bank of India, PAD, Bhubaneswar since July, 2012. Now both the receipts and payment functionalities of IFMS are being carried out on e-Kuber by means of Straight Through Processing (STP) protocol without manual intervention. e-Kuber is the core banking solution developed by the Reserve Bank of India through which Government receipts and payment transactions are conducted. It facilitates near real-time electronic disbursement to the bank account of the beneficiaries and vendors through the NEFT platform. Similarly, the consolidated accounting and reporting of electronic receipts are made through e-Kuber. It has smoothened the accounting, reporting and reconciliation process by eliminating several layers of activities and manual interventions.

ii) **Public Financial Management System (PFMS) :** Odisha is one of the leading States in implementation of Public Financial Management System (PFMS) designed by the Controller General of Accounts, Government

of India to track last mile utilisation of funds through various Implementing Agencies and make Just-in-Time releases. Integration of PFMS with the Odisha Integrated Financial Management System (IFMS) has been

completed. State Project Management Unit (SPMU) has been set up in the Directorate of Treasuries & Inspection for providing support to Departments and Implementing Agencies

for implementation of PFMS. The State Advisory Group has been constituted for periodic monitoring of PFMS implementation.

As many as 49 Centrally Sponsored Schemes have been mapped in IFMS and PFMS for flow of information regarding receipt of Central Assistance and expenditure made against the Central Share and State Share through the Treasuries. Further, the system will facilitate Aadhaar based Direct Benefit Transfer (DBT) and record Expenditure, Advance and Transfer (EAT) made by the State, District and Sub-District level Implementing Agencies and also help generate Utilisation Certificate. It will improve transparency, efficiency and accountability in management of public funds.

### **iii) Implementation of National Pension System (NPS), Electronic Processing of pension sanction and prompt settlement of Terminal Benefits of employees of Non-Govt. Aided Educational Institutions:**

Pension reform started with migration from a Defined Benefit Pension System to Defined Contribution based Pension System for the employees entering into State Government service on or after 1st January, 2005. Nearly 1.30 lakh Government employees have been registered under NPS and their records are being maintained by the Central Recordkeeping Agency (CRA) – National Securities Depository Limited (NSDL). The Directorate of Treasuries & Inspection, Odisha

and the Treasury Officers are the Nodal Agencies for implementation of NPS in the State. The implementing agencies are responsible for enrollment of subscribers, remittance of employee and employers' contribution, processing of withdrawal request and grievance handling. The Pension Fund Regulatory and Development Authority (PFRDA) is the regulator for the NPS. Its mandate is development and regulation of pension sector in India. The pension contributions of the employees under NPS are being invested by Professional Pension Fund Managers in line with the investment guidelines of Government of India applicable to Non-Government Provident Funds.

Odisha has received the “Best State Award – Maintenance of Subscriber Records” for NPS from PFRDA on 19th December, 2016 at New Delhi. For the last two years NPS Service Fortnight is being observed from 1st to 15th of February to sensitize the stakeholders, handle grievances and update employee related information like Aadhaar seeding.

The pension papers of a retired Government Servant can now be processed electronically through IFMS for sanction. It will expedite the pension sanctioning process. Besides, the Controller of Accounts has expedited the process of authorization of pension and final payment from Provident Fund so as to ensure settlement of terminal benefits of employees of Non-Govt. Aided Educational Institutions within 3 months from the receipt of the claims.

## **9.13 Outlook**

The State has to make the growth process sustainable and inclusive accompanied by faster reduction of poverty, regional disparity, development of infrastructure and delivery of public services. In terms of natural resource endowment, demographic dividend, there is ample opportunities for the State to grow at a faster rate for which there is a stable Government, sound policy environment, robust public finances and an efficient and

effective delivery system. The overall fiscal situation of the State is stable. It is capable of tackling fiscal and developmental challenges without departing from the prudent fiscal management policy and continue the thrust on socio-economic development for inclusive growth.

Recently, the Government has formulated a number of policies to attract private investment for the development of renewable energy, handloom, apparel manufacturing, bio

technology, tourism, food processing and health care. The Government has also refurbished Odisha MSME Development Policy in line with the investor friendly Industrial Policy Resolution 2015. With the promise of investment of Rupees Two Lakh Crore in the recently concluded Make in Odisha Conclave in 2016 and the prevailing business and investment friendly eco system in the State, Odisha is poised to march ahead on the path of economic progress and become one of the foremost States of the Country.

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**Annexure 9.1: Odisha Finances - Broad Trends**

(in Crore)

	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (BE)
<b>A.</b>	<b>Total Revenue Receipts</b>	40267.02	43936.91	48946.85	56997.88	68941.44	78126.71
1	Own Tax Revenue	13442.77	15034.20	16891.74	19828.30	22526.95	23200.00
2	Own Non-tax Revenue	6442.96	8078.03	8378.60	8070.87	8711.24	9822.93
3	Share of Central Taxes	12229.09	13965.01	15247.09	16181.22	23573.78	26567.56
4	Grants from Centre	8152.19	6859.73	8429.42	12917.50	14129.46	18536.22
5	<i>Total Central Transfer</i>	<i>20381.28</i>	<i>20824.74</i>	<i>23676.51</i>	<i>29098.72</i>	<i>37703.24</i>	<i>45103.78</i>
<b>B.</b>	<b>Total Revenue Expenditure</b>	34660.23	38237.56	45617.75	51135.74	58805.71	74443.38
<b>C.</b>	<b>Capital Outlay</b>	4496.09	5622.18	7756.40	11074.63	17090.48	16749.70
<b>D.</b>	<b>Revenue Surplus</b>	5606.79	5699.35	3329.10	5862.14	10135.73	3683.33
<b>E.</b>	<b>Fiscal Deficit(-) / Surplus(+)</b>	621.76	3.61	-4633.67	-5478.62	-7062.84	-14532.40
<b>F.</b>	<b>Primary Deficit/ Surplus</b>	3198.19	2810.84	-1745.42	-2668.35	-3719.54	-9882.40

Source : Finance Department, Govt. of Odisha

**Annexure 9.2: Own Tax Revenues in Odisha**

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (BE)
1	Sales Tax (VAT)	8196.85	9684.68	10728.55	11816.73	13096.99	13616.00
2	State Excise	1379.00	1498.64	1780.13	2035.24	2546.94	3000.00
3	Stamp Duty & Regn Fees	498.15	544.88	605.48	800.23	2157.07	1035.00
4	Entry Tax	1312.12	1342.54	1613.45	1710.87	1663.00	2150.00
5	Motor Vehicle Tax	787.99	746.19	859.67	910.31	1043.73	1230.00
6	Electricity Duty	551.65	590.48	670.11	1722.60	1212.21	1360.00
7	Land Revenue	521.47	420.21	431.26	645.64	588.81	590.00
8	Profession Tax	126.93	136.06	149.85	168.97	175.57	187.00
9	Other Taxes	68.58	70.52	53.23	17.70	42.63	32.00
	Total :	13442.74	15034.20	16891.73	19828.29	22526.95	23200.00

Source : Finance Department, Govt. of Odisha

**Annexure 9.3: Capital Expenditures in Odisha**

(in Crore)

Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (BE)
Capital Outlay*	4496.09	5622.18	7756.4	11074.63	17090.48	16749.70
Loans and Advances (Gross)	621.01	216.03	463.55	358.00	336.53	1651.18
Debt Repayment (Gross)	2327.76	3179.86	2293.22	4111.45	2881.37	1208.39
Transfer to Contingency Fund	--	--	--	--	--	--
Total Capital Expenditure	7444.86	9018.07	10513.17	15544.08	20308.38	19609.27

Source : Finance Department, Govt. of Odisha

**Annexure 9.4: Liabilities of the Government of Odisha as on 31<sup>st</sup> March**

(in Crore)

Sl. No.	Liabilities	2011-12 Actuals	2012-13 Actuals	2013-14 Actuals	2014-15 Actuals	2015-16 Actuals
<b>1</b>	<b>Consolidated Fund</b>	<b>24617.83</b>	<b>23317.36</b>	<b>23314.43</b>	<b>26848.59</b>	<b>33757.06</b>
<b>I</b>	<b>Public Debt</b>	<b>24617.83</b>	<b>23317.36</b>	<b>23314.43</b>	<b>26848.61</b>	<b>33757.06</b>
a	Open Market Borrowings (Net SLR based Market borrowings)	5114.12	3806.06	2921.19	4564.85	8128.11
b	Borrowings from Banks and FIs/ Negotiated Loans	3300.68	3374.27	3945.71	4977.78	6746.33
c	Special Securities issued to NSSF	8482.39	8597.05	8985.13	10074.72	11650.09
d	Bonds/ Debentures which are issued by the State Govt.t	441.43	331.13	220.85	110.57	0.28
e	Loans from Centre (Net)	7279.20	7208.85	7241.55	7120.69	7232.25
f	Others	0.00	0.00	0.00	0.00	0.00
<b>II</b>	<b>Ways &amp; Means Advances &amp; Overdrafts from RBI or any other bank</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
a	WMA	0.00	0.00	0.00	0.00	0.00
b	OD	0.00	0.00	0.00	0.00	0.00
<b>2</b>	<b>Public Accounts</b>	<b>22872.07</b>	<b>25550.02</b>	<b>26922.37</b>	<b>29167.75</b>	<b>31519.27</b>
a	State Provident Funds	13971.68	14662.75	15351.82	16424.77	18260.28
b	Small Savings, Insurance and Pension Funds, Trust and Endowments, etc	0.71	0.72	0.70	0.53	0.49
c	Other items in Public Accounts of which	8899.69	10886.55	11569.85	12742.44	13258.50
	i. Deposits	3567.93	5161.84	5974.81	6890.16	7120.78
	Bearing Interest	78.36	79.77	47.78	40.76	46.68
	Not Bearing Interest	3489.57	5082.07	5927.04	6849.40	7074.10
	ii. Reserve Funds/ Sinking Fund	5331.76	5724.78	5595.04	5852.28	6137.72
	Bearing Interest	296.14	189.16	59.43	23.44	308.89
	Not Bearing Interest	5035.62	5535.62	5535.60	5828.84	5828.83
<b>3</b>	<b>Contingency Fund</b>	<b>384.11</b>	<b>400.00</b>	<b>250.00</b>	<b>400.00</b>	<b>400.00</b>
<b>4</b>	<b>Total Liabilities (1+2+3)</b>	<b>47874.00</b>	<b>49267.40</b>	<b>50486.80</b>	<b>56416.36</b>	<b>65676.33</b>
<b>5</b>	<b>Memo Items</b>	<b>6902.94</b>	<b>6943.41</b>	<b>3862.39</b>	<b>4395.02</b>	<b>6421.55</b>
a	Remittances	10.15	7.26	21.40	23.67	27.70
b	Suspense and Miscellaneous	6880.33	7377.60	3891.79	3792.70	5726.86
c	Appropriation to Contingency Fund	0.00	0.00	0.00	0.00	0.00
d	Increase (+)/ Decrease (-) in Cash Balance	-12.47	441.46	26.87	578.65	666.99

Source : Finance Department, Govt. of Odisha

Note: This does not include Miscellaneous Capital Receipt as in the Statement of Liabilities appearing in the Report of C&AG (Civil) and taken into consideration for computation of total liabilities in the Accounts at a Glance prepared by A.G. (A&E), Odisha

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## Looking Ahead

*The growth rate of Odisha picks up to record an anticipated 7.94 percent in 2016-17. The upswing in growth rate is observed after a modest growth of 6.01 percent in 2015-16. Odisha's persistent macro behavior, fiscal measures, sharp poverty reduction strategies for prudence, dwindling inequality, efficient, natural shock management capacities etc. provide strength to propel higher growth trajectory in future. Services sector overtakes the depleting agriculture and volatile industry sector in the State. But the State addresses the challenges and potential issues of agriculture and industry sector with high priority. The lagging behind issues of industry, infrastructure, social infrastructure etc. are being addressed with prime policies and innovative measures by the State Government. The State efforts government on financial and social inclusion remains impressive. Its development strategies expect to drive Odisha's economy with optimism.*

10.1 The development paradigm of Odisha speaks of a reassuring economy. Its growth trajectory remains promising with few exceptions in last decade. Its rich natural resource base reinforces sustainability in future. Its rising active human capital raises the prospect of a vibrant economy. Political stability of the State and innovative development policy initiatives are the real strength of Odisha's economy. The Odisha Economic Survey makes an empirical evaluation of physical and financial performance of the State economy of Odisha over the decade; for the year 2015-16 and expectations in 2016-17. The State could withstand the global slowdown, inflationary pressure and recurrent natural shocks etc to exhibit sound growth rates in last decade with few exceptions. The State government enlarged the scope of state finances and fiscal space with higher plan size and capital outlays to propel higher growth in the economy. Noticeable strides were observed in the development of infrastructure, technology and economically productive human capital in the State. These are juxtaposed by the notable performance indicators of State economy during 2015-16 & 2016-17. The capital outlay increased by 10 percent from Rs. 15149.07 crore in 2015 -16 to Rs.16749.70 crore in 2016-17 for the State. Odisha expects to grow at above 7.94 percent in 2016-17 with real per capita income rising. With about 43.5 percent share of GSDP, the services sector leads as major driver of State's economy leaving behind the sectoral contribution of agriculture & industry sector to GSDP of Odisha. Inclusive growth process helped in incredible average annual poverty reduction by 3.5 percentage points between 2004-05 and 2011-12 in Odisha as compared to that of 2.18 percentage points of India. The Survey evaluates the sufficiency, efficiency and

deficiency conditions of Odisha's economy that help in looking ahead with the emerging challenges, potential and opportunities ingrained in Odisha's economy.

10.2 The conflict in agriculture sector performance in Odisha is well pronounced. Its share to GSDP depletes to about 19.91 percent and growth rate varies over the years. The sector diversifies in line with national experience. But the dependence of people on agriculture sector for sustained employment and livelihood for more than 60 percent population, rural population in specific, do not decelerate much over the decades. This is a matter of both concern and opportunities. The State Government need to address the challenges faced by agriculture & allied sector in Odisha with diligence. Odisha need to look ahead with certain potential area development. Overall productivity of the agriculture and allied sectors need to be raised substantially by appropriate measures. Going beyond 'cereal-centric' production pattern, greater focus needs to be given on 'pulses-centric' and 'oilseed-centric' production. Horticulture, floriculture, pisciculture, and poultry production need to be prioritized with perspective strategies. Input costs of agriculture production require a downward revision. Skill development among the vast unorganized working force need to be promoted in phased manner. Irrigation, minor and micro irrigation to be specific, need to be addressed with high priority. Disaster management plan of Odisha to combat recurring natural hazards like flood, cyclone, draughts etc. already have the enabling structure to effectively counter the adverse impact of huge economic loss due to damage in agriculture sector. The need remains in strengthening of institutional mechanisms for operationalization of plan. These approaches and initiatives will not only enhance the

farmer's income, farm production, sustained employment and livelihoods but also remove the low productivity or under employment of surplus labor in agriculture sector in the State in the long run. The Agriculture Policy of Odisha 2013 addresses these issues with care and prudence.

10.3 Odisha has the advantage to be the eastern gateway of industrial power in terms of rich mineral resources, rising share to GSDP, effective single window system, competitive power tariff, political stability, infrastructural and input support etc. For faster industrialization in the State, there is need to improve the skills of employable industrial manpower and scope of entrepreneurship; ensure good governance; judicious exploration of minerals, water and energy resources; timely forest & environment clearances; enlarge domestic markets and export promotion of industrial products and finally instill business confidence among entrepreneurs etc. Similarly, services sector contribute remarkably with more than 40 percent share to GSDP. The priority should be on skill development of active unorganized population, stronger institutional mechanisms and social infrastructure development etc. Regional, social and gender disparities exist in the State that need to be adequately addressed.

Some regions like the KBK region and some social groups, for example, SC and ST communities, require special focus. The Government has initiated several interventions to address these disparities.

### **Development Approaches**

10.4 The State Government make focused initiatives on long term development approaches as follows:

- i) Emphasis on building rural and urban productive infrastructure.
- ii) Higher growth rate of Agriculture and allied sectors.
- iii) Strengthening social security system to reduce IMR, MMR, provide food security, and increase female literacy etc.
- iv) Focused efforts for reducing poverty and achieving newly launched Sustainable Development Goals (SDGs).
- v) Improving governance and service delivery mechanisms.
- vi) Promoting broad-based growth, encouraging private investment, public private partnership (PPP), and public private community partnership (PPCP).
- vii) Emphasis on creation of adequate self-employment / employment opportunities.

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# ODISHA

## Tourist Destinations

