



**Government of Bihar**  
Finance Department

**Economic Survey**  
**2016 - 17**



बिहार सरकार

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## **Foreword**

The Annual Economy Survey 2016-17 presents different dimensions of the economic sector in Bihar during the preceding year. The survey clearly indicates that, even in the face of some external uncertainties, Bihar has been able to maintain its growth process. Further, the comprehensive development strategy of the State Government has also ensured that the gains of development have been widely shared by all sections of the population. In the coming years, this growth process needs to be strengthened further so that Bihar could realise its full development potential.

Through this survey, the State Government intends to inform the development professionals, academicians and interested stakeholders and above all the citizens about the present status of State's economy. It is hoped that after being informed about the State's economy, they would also provide feedbacks to the State Government on the present development strategy.

(Nitish Kumar)

**ABDUL BARI SIDDIQUI**  
Finance Minister, Bihar



**PATNA**

### **Preface**

For implementation of a strong development policy and prudent management of state finances, the State Government needs the opinion of citizens. It is in this background that an annual Economic Survey is prepared, providing a detailed account of Bihar's economy. In the background of global and national scenario, this Economic Survey 2016-17 records the salient trends in Bihar economy during the preceding year. I sincerely hope that the wealth of information that this survey provides will encourage its readers to analyse the economy in more details and provide inputs to the State Government for better economic management.

**(Abdul Bari Siddiqui)**



## GLOSSARY OF ABBREVIATIONS

ADPC	Asian Disaster Preparedness Centre
AIBP	Accelerated Irrigation Benefit Programme
ANM	Auxiliary Nurse-cum-Midwife
ASER	Annual Survey of Education Report
ASHA	Accredited Social Health Activist
ASI	Annual Survey of Industries
AWC	Anganwadi Centres
AWW	Anganwadi Worker
BIADA	Bihar Industrial Area Development Authority
BREDA	Bihar Renewable Energy Development Agency
BRGF	Backward Region Grant Fund
BSDM	Bihar Skill Development Mission
BSEB	Bihar State Electricity Board
BSHP	Bihar State Highway Project
BSHPC	Bihar State Hydroelectric Electric Power Corporation
BSWAN	Bihar State Wide Area Network
BUDCO	Bihar Urban Development Corporation
CAGR	Compounded Annual Growth Rate
CBS	Core Banking Services
CLRI	Central Leather Research Institute
CMTA	Cluster Monitoring and Technical Assistant
COMFED	Cooperative Milk Producers Federation Limited
CPWD	Central Public Works Department
CSO	Central Statistical Organisation
CST	Central Sales Tax
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojana
DIC	District Industries Centre
DISCOM	Distribution Company
EHW	Enterprises with hired workers
FRBMA	Fiscal Responsibility and Budget Management Act
GDDP	Gross District Domestic Product
HUDCO	Housing and Urban Development Corporation
IAY	Indira Awas Yojana
ICDS	Integrated Child Development Scheme
IGMSY	Indira Gandhi Matritva Sahyog Yojana
IHSDP	Integrated Housing and Slum Development Programme
KGBV	Kasturba Gandhi Balika Vidyalaya
KVIC	Khadi and Village Industries Commission
MCC	Model Career Centres
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act

MMGSY	Mukhyamantri Gram Sadak Yojana
MNSY	Mukhyamantri Nari Shakti Yojana
MOPS	Multi Optional Payment System
MSME	Micro, Small and Medium Enterprises
NABARD	National Bank of Agricultural and Rural Development
NCVT	National Council of Vocational Training
NDRF	National Disaster Response Force
NHAI	National Highway Authority of India
NIELIT	National Institute of Electronic and Information Technology
NRDWP	National Rural Drinking Water Programme
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NSAP	National Social Assistance Programme
NSSO	National Sample Survey Organisation
PACS	Primary Agricultural Cooperative Societies
PDS	Public Distribution System
PHC	Primary Health Centre
PMEGP	Prime Minister Employment Generation Programme
PPP	Public Private Partnership
PRI	Panchayati Raj Institution
PSU	Public Sector Undertakings
R-APDRP	Restructured Accelerated Power Development and Reforms Programme
RAY	Rajiv Awas Yojana
RGPSA	Rajiv Gandhi Panchayat Sashaktikaran Abhiyan
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
RIDF	Rural Infrastructure Development Fund
RUSA	Rashtriya Uchchatar Shiksha Abhiyan
SCADA	Supervisory Control and Data Acquisition
SCARDB	State Cooperative Agriculture and Rural Development Banks
SJVNL	Sutluj Jal Vidyut Nigam Limited
SLBC	State Level Bankers Committee
SNP	Supplementary Nutrition Programme
SRR	Seed Replacement Rate
SRI	System of Rice Intensification
SRS	Sample Registration System
SSA	Sarva Shiksha Abhiyan
UDAY	Ujwal DISCOM Assurance Yojana
UID	Unique Identification Number
UIDSSMT	Urban infrastructure Development Scheme for Small and Medium Towns
UIG	Urban Infrastructure and Governance

## INDEX OF TABLES

Table No.	Title	Page No.
<b>Chapter I : Bihar Economy : An Overview</b>		
1.1	Demographic Profile and Administrative Structure of Bihar and India (2001 and 2011)	2
1.2	Sectoral Growth Rate of GSDP	4
1.3	Per Capita Net State Domestic Product (NSDP) at (2011-12) Prices of Major Indian States	5
1.4	Sectoral Composition of GSDP at Constant (2011-12) Prices	7
1.5	Relatively Prosperous and Backward Districts of Bihar	8
1.6	State-wise Annual Inflation Rates for CPI (base: 2012 = 100)	9
<b>Chapter II : State Finances</b>		
2.1	Receipts and Expenditure	24
2.2	Major Fiscal Indicators	34-35
2.3	Fiscal and Financial Performance Indicators	38
2.4	Deficit/Surplus position of States	39
2.5	Gross Fiscal Deficit	40
2.6	Decomposition of Gross Fiscal Deficit of Bihar	40
2.7	Financing of Gross Fiscal Deficit	42
2.8	Outstanding Liabilities	43
2.9	Composition of Outstanding Liabilities in the Consolidated Fund	44
2.10	Public Debt Repayment Liabilities	45
2.11	Net Public Debt Received	46
2.12	Tax : GSDP Ratio of States (2014-15)	47
2.13	Revenue Account	48
2.14	Expenditure Pattern	49
2.15	Interest Payment and Receipt	49
2.16	Revenue vis-à-vis Capital Outlay	50
2.17	Transfer of Resources from Central Government	50
2.18	Revenue Receipts	52
2.19	Tax Revenues under Different Heads	53
2.20	Composition of Tax Revenues	54
2.21	Growth Rates of Tax Revenue	54
2.22	Share of Direct and Indirect Taxes	55
2.23	Major Non-Tax Revenues	56
2.24	Composition of Non-Tax Revenues	57

2.25	Growth Rates of Non-Tax Revenues	57
2.26	Variation between the Estimated and Actual Realisation of Tax and Non-Tax Revenue (2015-16)	58
2.27	Cost of Collection of Taxes	59
2.28	Tax and Non-tax Revenue as Percentage of GSDP	60
2.29	Buoyancy of Important Tax and Non-Tax Revenue Sources	60
2.30	Grants and Contributions from Central Government	61
2.31	Act-wise Commercial Tax Collection	62
2.32	Share of Commercial Taxes in Total Revenue	62
2.33	Comparative Commodity-wise Collection of Sales Tax	63-64
2.34	Collections of State Excise Duty	65
2.35	Revenue from Stamp Duty and Registration Fees	66
2.36	District-wise Revenue from Stamp Duty and Registration Fees, 2016-17 (Upto Sept., 2016)	67
2.37	Expenditure from Consolidated Fund	68
2.38	Composition of Government Expenditure	69
2.39	Percentage Composition of Total Expenditure	69
2.40	Growth Rates of Expenditure	70
2.41	Details of Revenue Expenditure	71
2.42	Expenditure on Salaries and Pensions	72
2.43	Quality Parameters of Expenditure	73
2.44	Expenditure on Social Services	74
2.45	Expenditure on Economic Services	76
2.46	Per Capita Expenditure on Social and Economic Services	77
2.47	Summary of Actual Amounts (2015-16) and Budget Estimates (2016-17)	78
2.48	Percentage Distribution of Consolidated Fund – Receipts and Expenditure	79
2.49	State Government Investment in Public Sector	80
2.50	Investment in Working and Non-Working Public Sector Companies (March 31, 2015)	80
2.51	Sector-wise Government Companies and Corporations (2014-15)	81
<b>Chapter III : Agriculture and Allied Sectors</b>		
3.1	Annual Rainfall for Different Seasons	88
3.2	Land Utilization Pattern	90
3.3	Cropping Pattern	91
3.4	Production Levels of Major Crops	92
3.5	Productivity Level of Major Crops	93

3.6	Leading Districts for Production and Productivity of Rice, Wheat, Maize and Pulses	95
3.7	Area and Production of Fruits in Bihar	96
3.8	Area and Production of Vegetables in Bihar	97
3.9	Distribution of Certified Seeds and Seed Replacement Rate (SRR) for Important Crops	100
3.10	Consumption of Fertilizers	101
3.11	Agricultural Credit Flow	104
3.12	Livestock Wealth (2003, 2007 and 2012)	107
3.13	Livestock and Fish Production	107
3.14	Livestock Services	108
<b>Chapter IV : Enterprises Sector</b>		
4.1	Annual Growth Rate of Secondary Sector in Bihar at 2011-12 prices	126
4.2	Contribution of Industrial Sector in GSDP at 2011-12 prices	127
4.3	Number of Factories and Factories in Operation	127
4.4	Industries in Bihar	128
4.5	Structural Ratios of Industries in India and Bihar	129
4.6	Share of Gross Value Added in Gross Value of Output	129
4.7	Estimate of Employment and Emoluments Paid in the Factory Sector (2013-14)	130
4.8	Census of Economic Enterprises in Bihar (2005 and 2013)	131
4.9	District wise Total Number of Establishments in Bihar	133
4.10	Details of Food Processing Industry in Bihar	134
4.11	Performance of Sugar Mills	136
4.12	Number of Dairy Cooperative Societies under Different Milk Union/Project	138
4.13	Progress of Unions and Projects in Daily Milk Collection	138
4.14	Milk Procurement per Functional Dairy Cooperative Society	139
4.15	Activities by COMFED	139
4.16	Handloom Concentrated Districts in Bihar	140
4.17	Targets and Achievements of Training Programmes	141
4.18	Achievements in Sericulture	142
4.19	Performance of PMEGP	145
4.20	Expenditure on Industries by State Government	146
4.21	Physical and Financial Achievements of Udyog Mitra	146
4.22	Details of BIADA Land and Activities (September, 2016)	147
4.23	Revenues from Minerals in Bihar	149
4.24	Expenditure of Department of Tourism	150
4.25	Tourist Arrivals in Bihar	150

<b>Chapter V : Infrastructure</b>		
5.1	Public Investment in Road and Bridges in Bihar	154
5.2	Road Network and Road Density in Major States of India (As on March, 2014)	155
5.3	Length of Roads in Bihar (kms)	156
5.4	Status of Road Network in Bihar (as on September, 2016)	156
5.5	Road Length and Expenditure on Development and Maintenance of National Highways	157
5.6	Status of Upgradation of NH into Four/Six-Lanning in Bihar	158
5.7	Progress of Work under Conversion of State Highways	158
5.8	Status of Work under Additional Financing (As on 30.09.2016)	159
5.9	Programme-wise Length of Rural Roads Constructed (As on September, 2016)	161
5.10	Status of Road Projects under RIDF in Bihar	162
5.11	Bridge Constructed under Mukhyamantri Setu Nirman Yojana (2015-16)	164
5.12	Overview of Bihar Rajya Pul Nirman Nigam Limited	165
5.13	Total Registered Motor Vehicles in Major States of India	165
5.14	Yearly Growth in Number of Registered Vehicles and Revenue Collection	166
5.15	Revenue Collection and Number of Passengers Carried by BSRTC	167
5.16	Spread of Rail Route Network in Indian Major States (March, 2014)	168
5.17	Domestic Aircraft Movements, Number of Passengers and Freights at Patna Airport	169
5.18	Status of Common Service Centre Project	170
5.19	Tele-density of Major Indian States	171
5.20	Spread of Postal Network in Major States of India (As on March 31, 2015)	172
5.21	Number of Accounts and Outstanding Balances in Post Offices	174
5.22	Ultimate, Created and Utilised Irrigation Potential in Bihar	175
5.23	Creation of Irrigation Potential under Major and Medium Irrigation (2015-16)	176
5.24	Water Utilisation Efficiency of Major and Medium Irrigation Schemes	177
5.25	Status of Farmers Societies	178
5.26	Status of Minor Water Resources in Bihar	178
5.27	Area Brought under Irrigation through Minor Irrigation Sources	179
5.28	District-wise Number of Ahars, Pynes and Ponds made functional under Different Programmes	181

<b>Chapter VI : Energy Sector</b>		
6.1	Power Scenario (2011-12 to 2015-16)	184
6.2	District-wise Per Capita Consumption	185
6.3	Annual Energy Requirement for Rural and Urban Households	186
6.4	Annual Energy and Peak Demand Requirement at State Periphery	186
6.5	Year-wise and Source-wise Details of Capacity Expansion	187
6.6	Estimated Availability of Power and Energy (2016-17 to 2019-20)	187
6.7	Projected Surplus/ Deficit in Power and Energy (2016-17 to 2019-20)	188
6.8	Allocation of Funds under BSPHCL	189
6.9	Category-wise Number of Effective Consumers (As per billing data)	190
6.10	Financial Status of Power Sector	191
6.11	Capital Expenditure of R-APDRP	192
6.12	Progress of Work under DDUGJY (Erstwhile RGGVY)	193
6.13	Projected Required Capacity for Power (2016-17 to 2019-20)	194
6.14	Plan of Action for Strengthening Transmission	194
6.15	Existing Generation Capacity (March 2016)	195
6.16	Details of Existing and Planned Generation Units	197
6.17	Achievements of BREDA	201
<b>Chapter VII : Rural Development</b>		
7.1	Poverty Ratio of Bihar and India	204
7.2	Poverty Lines for Bihar and All India	204
7.3	Progress of JEEVIKA	205
7.4	Extent of Livelihood Related Activities by SHGs	206
7.5	Performance of MGNREGS	207
7.6	Completed Works under MGNREGS	208
7.7	Performance of the PMAY Scheme	209
7.8	Social Background of PDS Dealers	211
7.9	Allotment and Lifting of Rice and Wheat under PDS in Bihar	211
7.10	Overview of Panchayati Raj Institutions in Bihar	212
7.11	Expenditure Level of PRIs	213
7.12	Budget Allocation, Expenditure and Physical Achievement for Distribution of Homestead Land (2015-16)	214
7.13	Details of the Scheme for Provision of Homestead Land to Mahadalit Households	215
7.14	Funds Allotted for Floods and Cyclones	216



<b>Chapter VIII : Urban Development</b>		
8.1	Urbanisation Trend in Bihar and India	225
8.2	Distribution of Urban Population by Size Class of Town	225
8.3	Districtwise Urbanisation in Bihar (2001 and 2011)	226
8.4	Access to Basic Urban Services in Bihar by Size Class of Towns (2011)	227
8.5	Availability of Piped Water and Toilet in Urban Areas of Bihar	227
8.6	Status of Roads and Drains in Urban Areas of Bihar	228
8.7	Expenditure pattern of Urban Development and Housing in Bihar	229
8.8	Municipal Finances for 28 Largest Towns in Bihar	230
8.9	Programmes under Urban Infrastructure and Governance (Estimated Cost)	231
8.10	Details of Urban Development Schemes under UIDSSMT	232
8.11	Details of Namami Gange Scheme	232
8.12	Progress of Work under IHSDP	233
8.13	Progress of Work under Rajiv Awas Yojana (RAY)	234
8.14	Progress of Training under EST & P	234
8.15	Progress of Work under SUSV	235
<b>Chapter IX : Banking and Allied Sectors</b>		
9.1	Distribution of Commercial Bank Branch Offices (2011-2016)	238
9.2	Distribution of Branches of Commercial Banks among States (as on June, 2016)	239
9.3	Number of Branches of State and District Central Cooperative Banks (As on March 31)	240
9.4	Number of RRB Branches in Bihar (as on September, 2016)	241
9.5	Rural Deposits of Scheduled Commercial Banks by Type of Deposit (as on March, 2015)	241
9.6	Distribution of Employees of SCBs (March, 2015)	242
9.7	State-wise Deposits and Credit of Scheduled Commercial Banks in India (March 31)	243
9.8	Credit-Deposit (CD) Ratio of All Banks in Bihar	244
9.9	Bank Group-wise and Area-wise Credit-Deposit Ratio (2015-16)	246
9.10	Credit-Deposit (CD) Ratio of the Scheduled Commercial Banks as on March 31	247
9.11	District-wise Credit-Deposit (CD) Ratio	248
9.12	Credit-Deposit (CD) Ratio of Nationalised Commercial Banks	249
9.13	Credit-Deposit (CD) Ratio of Private Commercial Banks (2015-16)	250
9.14	Credit-Deposit (CD) and Investment Plus Credit-Deposit (ICD) Ratios of RRBs	250

9.15	Sectoral Share of Advances under Annual Credit Plans (2015-16)	251
9.16	ACP Achievement - All Banks	252
9.17	Agency-wise Analysis of ACP Achievement (2015-16)	252
9.18	Agriculture Credit Flow	252
9.19	Outstanding Agricultural Advances	253
9.20	Selected Indicators of Primary Agricultural Credit Societies (March 31, 2015)	253
9.21	Working Results of State Cooperative Banks	254
9.22	Working Results of SCARDBs	255
9.23	Number of Kisan Credit Cards (NEW) issued by Banks	256
9.24	Sector-wise Refinancing by NABARD	257
9.25	Details of Sector-wise Investment Credit Refinance in Bihar by NABARD	258
9.26	Sanctions and Disbursements in Bihar under RIDF till March, 2016	259
9.27	SHG-Bank Linkage in Selected States of India (March 2016)	260
9.28	Performance of SHGs in Bihar	261
<b>Chapter X : Human Development</b>		
10.1	Trend of Social Services Expenditure	266
10.2	Life Expectancy at Birth	267
10.3	Selected Health Indicators for Bihar and India	268
10.4	Monthly Average Number of Patients Visiting Government Hospitals	269
10.5	Overall Status of Health Infrastructure	270
10.6	District-wise Average Number of Outpatients Visiting per Day	271
10.7	Number of Health Personnel	272
10.8	Number of Institutional Delivery under JSY	273
10.9	Percentage of Fully Immunized Children (age 12-23 months)	275
10.10	Antigen-wise Immunisation Coverage	275
10.11	Prevalence of Main Diseases in Bihar	277
10.12	Staffing Position in ICDS	278
10.13	Resource Utilisation in ICDS	278
10.14	Achievement under Water Supply and Sanitation	281
10.15	Financial Progress under NRDWP	281
10.16	Financial Progress in State Plan Schemes for Water Supply and Sanitation	282
10.17	Physical Achievements in State Plan Schemes for Water Supply and Sanitation	282
10.18	Trend of Literacy Rates in India and Bihar	284

10.19	Total Enrolment in Primary and Upper Primary Levels	286
10.20	Dropout Rates at Primary, Upper Primary, Secondary and Higher Secondary Levels	287
10.21	Dropout Rates (SC & ST) at Primary, Upper Primary and Secondary Levels	288
10.22	Expenditure on Education	290
10.23	Expenditure on Education — Elementary, Secondary and Higher Education	290
10.24	Coverage of MDMS	291
10.25	Status of Fund Received and Expenditure by BEP	294
10.26	Percentage of Learning Outcomes based on ASER Report	295
10.27	Institutions of Higher Education	296
10.28	Overview of Outlay Allocation of SC and ST Welfare	299
10.29	Achievements of Bihar State Scheduled Caste Cooperative Corporation (2016-17)	301
10.30	Financial Progress of BC and EBC Welfare	302
10.31	Physical and Financial Details of BC and EBC Welfare Department	303
10.32	Gender Budget Summary	305
10.33	Overview of Gender Budget	306
10.34	Flagship Schemes to Address Gender Disparity	307
10.35	Number of Cases Registered and Disposed under Social Empowerment	309
10.36	Age-wise Work Participation Rates (WPR) in India and Bihar	310
10.37	Physical & Financial Progress of Schemes for Modernization of Employment Exchanges	312
10.38	Schemes for Old Age, Widow and Persons with Disabilities	313

## INDEX OF APPENDICES

Appendix	Title	Page No.
<b>Chapter I : Bihar Economy : An Overview</b>		
Table A 1.1	District-wise Demographic Profile of Bihar (2011)	11
Table A 1.2	Gross State Domestic Product (GSDP) and Net State Domestic Product (NSDP) of Bihar at Factor Cost	12
Table A 1.3	Gross State Domestic Product (GSDP) of Bihar at Factor Cost (Current Prices)	13
Table A 1.4	Gross State Domestic Product (GSDP) of Bihar at Factor Cost (2011-12 Prices)	14
Table A 1.5	Net State Domestic Product (NSDP) of Bihar at Factor Cost (Current Prices)	15
Table A 1.6	Net State Domestic Product (NSDP) of Bihar at Factor Cost (2011-12 Prices)	16
Table A 1.7	District-wise Per Capita Gross District Domestic Product (2004-05 Prices)	17
Table A 1.8	District-wise Consumption of Petroleum Products	18
Table A 1.9	District-wise Small Savings in Post Offices and Public Provident Fund	19
<b>Chapter II : State Finances</b>		
Table A 2.1	Act-wise / Circle-wise Collection 2014-15 and 2015-16	83-84
Table A 2.2	Act-wise / Circle-wise Collection 2016-17 (Up to September 2016)	85
Table A 2.3	District-wise No. of Document and Revenue from Stamp Duty and Registration Fees	86
<b>Chapter III : Agriculture and Allied Sectors</b>		
Table A 3.1	District-wise Annual Rainfall for Different Seasons	110
Table A 3.2	District-wise Land Utilisation Pattern (2013-14)	111-112
Table A 3.3	District-wise Area, Production and Productivity of Rice	113
Table A 3.4	District-wise Area, Production and Productivity of Wheat	114
Table A 3.5	District-wise Area, Production and Productivity of Maize	115
Table A 3.6	District-wise Area, Production and Productivity of Pulses	116
Table A 3.7	District-wise Area and Production of Important Vegetables	117-118
Table A 3.8	District-wise Area and Production of Important Fruits	119-120
Table A 3.9	District-wise Area, Production and Productivity of Sugarcane	121
Table A 3.10	District-wise Utilisation of Bio-fertilizers in Bihar	122
Table A 3.11	District-wise Cooperative Credit Distribution	123

Table A 3.12	District-wise Livestock Wealth (2012)	124
Table A 3.13	District-wise Production of Fish and Fish Seeds	125
<b>Chapter IV : Enterprises Sector</b>		
Table A 4.1	Value of output and Net value added of selected agro and non-agro based industries (2013-14) (Bihar and India)	151
Table A 4.2	Structure of Industries in Bihar (2013-14)	152
<b>Chapter V : Infrastructure</b>		
Table A 5.1	District-wise Road Network in Bihar	182
Table A 5.2	District-wise Registered Vehicles in Bihar During 2015-16	183
<b>Chapter VII : Rural Development</b>		
Table A 7.1	State-wise Poverty Ratios in 2011-12	218
Table A 7.2	District-wise Progress under MGNREGS	219-220
Table A 7.3	District-wise Financial Progress under MGNREGS	221
Table A 7.4	District-wise Distribution of PDS Dealers by Their Social Background in Bihar	222
Table A 7.5	District-wise Allotment and Lifting of Wheat and Rice under NFSA during (2015-16)	223
<b>Chapter IX : Banking and Allied Sectors</b>		
Table A 9.1	District-wise Performance Under Annual Credit Plan as on 31.3.2016	262-263
Table A 9.2	District-wise Achievement Kisan Credit Card (NEW and RENEW) Numbers	264
<b>Chapter X : Human Development</b>		
Table A 10.1	Number of Health Institutions in Bihar (As on September, 2016)	315
Table A 10.2	District-wise Employment of Regular and Contractual Doctors	316
Table A 10.3	District-wise Employment of Grade A Nurses	317
Table A 10.4	District-wise Employment of ANM	318
Table A 10.5	District-wise Employment of Asha Worker	319
Table A 10.6	District-wise Coverage of Institutional Deliveries under Janani Suraksha Yojana (JSY)	320
Table A 10.7	Prevalence of Diseases (2016-17, Sept. 2016)	321-322
Table A 10.8	District-wise Hand Pumps under National Rural Drinking Water Programme (NRDWP)	323
Table A 10.9	District-wise Achievement in Individual Household Lantrine (IHHL) under Central Rural Sanitation Programme	324
Table A 10.10	Total Enrolment in Primary and Upper Primary Levels (All)	325
Table A 10.11	Total Enrolment in Primary and Upper Primary Levels (SC)	326

Table A 10.12	Total Enrolment in Primary and Upper Primary Levels (ST)	327
Table A 10.13	District-wise Number of Primary and Upper Primary Schools in Bihar (2014)	328
Table A 10.14	District-wise Number of Teachers at Primary and Upper Primary Level (2014)	329
Table A 10.15	District-wise Coverage of MDMS (Class I-V)	330
Table A 10.16	District-wise Coverage of MDMS (Class VI-VIII)	331
Table A 10.17	District-wise Number of Colleges of Bihar	332
Table A 10.18	District-wise Number of Colleges in Bihar up to 2015-16	333
Table A 10.19	District Level Overview of SC/ST Welfare	334-335

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## EXECUTIVE SUMMARY

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### BIHAR ECONOMY : AN OVERVIEW

1. The growth momentum of the Bihar's economy, experienced in the recent decade, was continued in the last year also. The Central Statistical Organisation has just released a new series of GSDP, with 2011-12 as the base year for estimation of both national and state incomes. The new GSDP estimates also utilises some fresh data sources. According to these new estimates, the medium term growth rate for GSDP in Bihar was 7.6 percent, compared to 6.8 percent for the national economy.
2. The Per Capita Income in Bihar was about 35 percent of the national average in 2015-16, compared to about 33 percent a decade ago. The GSDP of Bihar at constant (2011-12) prices in 2015-16 was Rs. 3.27 lakh crore, yielding a Per Capita Income of Rs. 29,190. The estimated GSDP at current prices in 2015-16 is Rs. 4.14 lakh crore, implying a Per Capita Income of Rs. 36,964.
3. The sectoral growth rates indicate that the following sectors, each recording growth rates of more than 10 percent, are probably drivers of growth of Bihar economy — manufacturing (17.7 percent), electricity, gas and water supply (15.2 percent), trade, repair, hotels and restaurants (14.6 percent), transport, storage and communications (12.6 percent), and fishing and aquaculture (10.0 percent).
4. In 2011-12, the share of the primary sector in total GSDP happened to be 25.2 percent, the secondary sectors' contribution was 18.3 percent and the remaining 54.3 percent was accounted for by the tertiary sector. In 2015-16 the changed shares are — primary (18.3 percent), secondary (18.1 percent) and tertiary (59.9 percent). This reveals that, over the four year period, the share of primary sector has fallen by 7 percentage points. During the same period, the contribution of tertiary sector has jumped by 6 percentage points and touched a high of around 60 percent.
5. There exists substantial disparity in per capita income across the district of Bihar. In 2011-12, Patna, Munger and Begusarai turn out to be the most prosperous districts of the state. The poorest districts according to the data are — Madhepura, Supaul and Sheohar. If one leaves out Patna (the capital of the state), the per capita income of Munger is more than 3 times that of Sheohar, the poorest district.
6. The rise in prices in September 2016 over September 2015 for rural Bihar have been comparatively slower than that for India as a whole. Compared to a inflation rate of 4.96



percent for rural India, the rate for rural Bihar has been lower at 2.74 percent. In case of inflation rate for urban areas, it has again been lower at Bihar (1.68 percent), compared to the whole of India (3.64 percent). Since the inflation rate has been lower in Bihar for both rural and urban areas, the overall rate is also lower in Bihar (2.52 percent), with the all-India rate at 4.31 percent.

## STATE FINANCES

1. The revenue surplus of Bihar has increased from Rs 4820 crore in 2011-12 to Rs 12,507 crore in 2015-16, the highest so far, exceeding the budgetary expectations of Rs 14,649 crore. This has allowed the state government to increase its capital spending by more than Rs 5800 crore during the year. This has also allowed the state government to limit its Gross Fiscal Deficit to only 2.9 percent of the new estimate of GSDP (2011-12 series), well within the FRBMA limits. If one uses the old estimate of GSDP (2004-05 series), then the ratio is even lower at 2.4 percent.
2. In 2015-16, the outstanding debt was Rs. 88,829 crore implying a Debt: GSDP ratio of 21.5 percent, well below the limit of 25 percent, specified by the Fourteenth Finance Commission. The ratio of interest payment to revenue receipts was at 9.3 percent in 2011-12, which got reduced to 8.5 percent in 2015-16, again well below the upper limit of 10 percent, recommended by the Fourteenth Finance Commission. Thus, both conditions having been satisfied in addition to Bihar being a revenue surplus state for years together, the state government is eligible for an additional half percent fiscal deficit over and above its FRBMA target of 3 percent during the current fiscal. The budget estimates in fact indicates the fiscal deficit as 3.4 percent of new estimate of GSDP (2011-12 series). This clearly indicates that the debt problem is well under the control of the state government.
3. The revenue receipts of the state increased by Rs 17,706 crore, of which Rs 16,659 crore (94 percent) came from increases in tax revenues alone. The central grants increased by only Rs 420 crore and non-tax revenues by Rs 628 crore. During the five-year period from 2011-12 to 2015-16, the own tax revenue of the state government grew from Rs 12,612 crore to Rs 25,449 crore, implying a high annual growth rate of 19 percent. The transfers to the state government from the divisible pool of central taxes grew annually at 15 percent, while central grants recorded an annual growth rate of 19 percent.
4. The revenue expenditure in 2015-16 increased by Rs 11,046 crore over that in 2014-15, of which social services accounted for Rs 4230 crore (38 percent), economic services for Rs 5251 crore (48 percent), and the general services for Rs. 4564 crore (14 percent). The state government's concern for social development is amply reflected in the increased allocation for this sector from Rs. 19,536 crore in 2011-12 to Rs. 38,684 crore in 2015-16.

5. Of the total capital outlay of Rs 23,966 crore in 2015-16, as much as Rs 17,609 crore (73 percent) was spent on economic services, Rs 2740 crore (11 percent) on social services and rest of Rs 3617 crore (15 percent) on general services.
6. The total development expenditure of the state government including capital outlay, stood at Rs 78,077 crore in 2015-16, about 70 percent of the total expenditure, compared to 68 percent in 2014-15. The state government is committed to maintain a high growth rate in development expenditure, both in revenue and capital account.

## **AGRICULTURE AND ALLIED SECTORS**

1. Bihar's water resources are abundant, as it receives an average of 995 mm. of rainfall each year. The annual rainfall is reasonably adequate for the state's agricultural operations. However, only worrisome feature is the year-to-year variation in rainfall which tends to create flood or draught-like situations in the state. During the period 2001 to 2015, the annual rainfall has varied from being 678 mm. in 2010 to 1506 mm. in 2007.
2. The proportion of total land put to agricultural use is high in Bihar, compared to other states of India. In 2009-10, net area sown was 57.0 percent and it has increased marginally to 57.7 percent in 2012-13. In 2013-14, it has again decreased to 56.1 percent. During this period, there has been an increase in gross sown area between 2009-10 (7295.81 thousand hectares) and 2013-14 (7580.14 thousand hectares). The cropping intensity has increased marginally from 1.37 in 2009-10 to 1.44 in 2013-14.
3. The total cereals production of Bihar is estimated at 140.9 lakh tonnes for its population of around 10 crores. Presently, Bihar produces rice (68.0 lakh tonnes), wheat (47.4 lakh tonnes), maize (25.2 lakh tonnes), pulses (4.2 lakh tonnes), oilseeds (1.3 lakh tonnes), fibre crops (16.3 lakh tonnes) and sugarcane (119.1 lakh tonnes).
4. In 2015-16, the total production of vegetables was 142.84 lakh tonnes. The total vegetable production in 2015-16, comprised potato (63.46 lakh tonnes), onion (12.47 lakh tonnes), tomato (10.01 lakh tonnes), cauliflower (10.04 lakh tonnes), cabbage (7.20 lakh tonnes), brinjal (11.38 lakh tonnes) bottlegourd (6.32 lakh tonnes) and radish (2.47 lakh tonnes). The levels of production of seven major fruits in Bihar in 2015-16 were — mango (1465 thousand tonnes), guava (370 thousand tonnes), litchi (198 thousand tonnes), banana (1535 thousand tonnes), pineapple (116 thousand tonnes), papaya (53 thousand tonnes) and amla (14 thousand tonnes). The gangatic alluvial soil of the state is most suitable for the cultivation of a variety of fruits and vegetables.
5. Irrigation is an extremely important input for the 'Green Revolution', along with high yielding varieties of seeds. Therefore, under Agricultural Road Map II, the state government has identified several targets for the expansion of irrigation potential in Bihar,

like increasing total irrigation potential to 101.9 lakh hectares, summer irrigation to 30.6 lakh hectares, construction of 14.6 lakh tubewells, extensive renovation of 1770 ahars/pynes, and interlinking of rivers to transfer surplus water of north Bihar to south Bihar.

6. In 2013-14, the total consumption of fertilizers in Bihar was 38.62 lakh tonnes, which increased to 51.95 lakh tonnes in 2015-16, implying an increase of round 11 percent per year. The NPK (Nitrogen, Phosphorous and Potassium) ratio for the last three years has been 10:2:1 (2013-14), 9:2:1 (2014-15) and 8:2:1 (2015-16) which indicates more rational use of fertilizer components by the farmers in Bihar. Besides NPK, the state government is making concerted efforts to promote bio-fertilizers and green manure technique on a larger scale.
7. The agricultural scientists are now shifting their focus from the use of chemical fertilizers to recently evolved bio-fertilizer. The vermi compost production has been made demand-based, with a provision of 50 percent subsidy. The state government has also sanctioned additional subsidy for the purchase of vermi compost from 2011-12. During 2014-15, a total of about Rs. 160 crore was spent on promoting organic farming.
8. In 2015-16, the coverage for agricultural credit rose to 97 percent from 71 percent in 2011-12. In intermediate years, the level varied from 85 to 96 percent. The gross flow of credit which was Rs. 14,958 crore in 2011-12 increased nearly three times to Rs. 41,350 crore in 2015-16. The share of 3 different sources in 2015-16 stood at Commercial Banks (60.4 percent) RRBs (36.6 percent) and CCB (3.0 percent). This shows that commercial bank handle the major part of agricultural credit in Bihar.
9. Animal husbandry, along with agriculture, is one of key sectors which provide massive employment and income opportunities for the rural people of Bihar. The production of milk has increased 25.1 percent from 66.25 lakh tonnes in 2011-12 to 82.88 lakh tonnes in 2015-16. The production of egg has also increased from 75.43 crores in 2011-12 to 100.21 crores in 2015-16, implying an increase of 32.9 percent. In 2004-05, the production of fish in Bihar was 2.67 lakh tonnes. The production grew continuously thereafter and reached the peak level of 5.07 lakh tonnes in 2015-16.

## **ENTERPRISES SECTOR**

1. The growth of an economy is largely dependent on the growth of its enterprises sector which includes both secondary (industrial) and tertiary (services) activities. This is because, with increase in income, the demand for non-agricultural goods and services keeps on growing. The overall Bihar economy has grown at 7.6 percent, the secondary sector has grown at 8.4 percent and the tertiary sector has recorded an even higher growth rate of 10.4 percent.

2. The mineral resources in Bihar are extremely limited, thus the importance of agro-based industries are relatively more in Bihar. The agro-based industries in Bihar are dominated by cereal-based industries (rice, wheat and maize). The number of food processing industries in Bihar in 2015-16 was 399, of which 266 (66.7 percent) were operational. By August, 2016, there were a few additions, resulting in 407 units, of which 278 (68.3 percent) were operational. No less than two-thirds of the agro-based industries in Bihar are engaged in processing of cereals. The total employment under the Food Processing Industry is 48.4 thousand.
3. The industrial sector in Bihar, as elsewhere in India, is very heterogeneous with industrial units ranging from tiny/small to large. There were 17.07 lakh economic enterprises in the state in 2013, after recording an increase of 39.4 percent over the number in 2005 (12.25 lakh). This increase of about 40 percent over a period of 8 years implies an annual growth of 4-5 percent, which may be considered as at least a modest growth rate. It is heartening to note that this growth in the number of economic enterprises is higher in the rural areas (43.7 percent) than in the urban areas (30.3 percent).
4. The sugarcane is grown in about 3 lakh hectares in Bihar, approximately 6 percent of the total area under cultivation. At present, 9 sugar mills are operating in the state in the private sector. There are also 2 new sugar mills under the Bihar State Sugar Corporation which were handed over to HPCL in 2011 on long term lease. During 2015-16, 515 lakh quintals of sugarcane was crushed in Bihar, producing 50 lakh quintals of sugar.
5. There were 19.5 thousand milk cooperative societies in 2015-16, compared to 18.4 thousand societies a year ago. It implies an annual growth of 6.0 percent. The total milk procurement per day in 2015-16 was 1740 thousand kgs. and this amount has recorded a steady growth of 13.5 percent in the last five years. As regards milk procurement per functional dairy, it was 124.5 kilo litres in 2015-16.
6. The state government has prepared a new policy document 'Industrial Investment Promotion Policy' in 2016. This policy aims to achieve an annual growth rate of 15 percent for the industrial sector, so that its contribution to the GSDP can gradually reach to about 25 percent. To achieve this goal, the main strategy of this policy is to focus on — (a) development of support infrastructure, (b) prioritising core sectors with emphasis on advanced technology, (c) skill development, (d) modified structured package of assistance, and (e) balanced regional development.
7. The potential for tourism in Bihar is very substantial because of its rich historical heritage. In 2015, there were 28.95 lakh tourists in Bihar, of which 923 thousand were foreign tourists. Although the number of foreign tourists visiting Bihar has remained nearly same

over the years, the trend for domestic tourists is very positive. Between 2011 and 2015, the number of domestic tourists has increased by more than 50 percent.

## INFRASTRUCTURE

1. Development of the infrastructure sector has been a priority area for the state government and it has enhanced public investment in roads and bridges. The investment in the road sector has increased three fold from Rs 2696 in 2007-08 to Rs 7696 in 2016-17, indicating an annual growth rate of more than 10 percent. In 2015-16, the expenditure on roads constituted 16.4 percent of the expenditure of the state government on economic sectors, 7.7 percent of development expenditure, and 1.5 percent of the GSDP of the state.
2. For inter-state road transportation, the National Highways is an extremely important mode. A total of 40 NHs, measuring 4621 kms were there in Bihar till September, 2016, as compared to 35 NHs (4321 kms) in 2014. A major share (72.4 percent) of the NHs is of double and multiple lane roads.
3. The State Highways (SH) connect the different districts in the state through roads. The total length of the SH in Bihar till September 2016 was 4253 kms. Around 67.8 percent of SH was double-lane roads, 13.5 percent intermediate lane roads, and 18.2 percent single lane roads. The multiple-lane roads constituted only 0.6 percent of the SH.
4. Major District Roads (MDR), mainly connect the villages to the urban centres. There was 11,054 kms of MDR in the state as on September, 2016, with a major portion (54 percent) of it being single-lane roads. Out of the total length of MDR, 5121 kms have been converted into intermediate or double lane roads.
5. The rural roads connect villages to one-another and to the nearest road of higher category (MDR, SH and NH). Till September 2016, rural road network of 60,503 kms have been constructed with an expenditure of Rs 31,589 crore in Bihar. '*Ghar tak Pakki Gali-Naliyaan*' has been included under seven commitments (Saat Nischaya) of the state government.
6. A total of 1068 bridges have been constructed during the last decade under Mukhyamantri Setu Nirman Yojna (MMSNY). In addition, 583 mega, major and minor bridges have been completed under other schemes. The mega bridges over river Sone (Arwal-Sahar), Gandak (Gopalganj-Bettia), Gandak (Dhanha-Ratwal in West Champaran) Kosi (Vijay Ghat of Nawgachia in Bhagalpur), 6 lane bridge over Falgu river (Gaya), flyover (Sheikhpura more to Jagdeopath in Patna), and extension work of Chiraiyatand overbridge to Gandhi Maidan in Patna have been completed.
7. The number of registered motor vehicles in Bihar has been increasing rapidly, at an annual rate of 15.4 percent during the last five years (2010-15). In this regard, Bihar was the

second fastest growing state in India, after West Bengal (24.2 percent). However, the state still continues to remain at the bottom among all the major states in terms of number of vehicles per thousand of population. Till 2015, Bihar reported only 45.9 vehicles per thousand of population, compared to 173.5 for all-India.

8. Airways play a vital role in facilitating the growth of business and economy. In Bihar, the number of aircraft movements has almost doubled from 9547 in 2010-11 to 18,744 in 2015-16. Similarly, the number of passengers has also nearly doubled from 8.39 lakh in 2010-11 to 15.99 lakh during 2015-16. The freight also increased from 3.28 thousand tonnes (2004-05) to 4.41 thousand tonnes (2015-16).
9. Towards promoting information technology in state administration, Bihar State Wide Area Network (BSWAN) covers all districts of the state, upto the block headquarters. In addition to that, a Secretariat Local Area Networks (Sec. LAN) is working for departmental and secretarial work of the state which enables timeliness, transparency and accountability of the departments. Under this, a total of 3300 data nodes were established in important government offices in and around the secretariat complex in Patna and all of them are functional. The Common Service Centre (CSC) facility has been established in all the 9 divisions of the state. This is a core infrastructure for the national e-governance.
10. Bihar has registered a tremendous growth in the telecom sector during the last decade. The number of telephone connections increased phenomenally from 9.7 lakh (2001) to 448 lakh (2010). Later, the number of telephone connection increased further from 448 lakh (2010) to 748 lakh (2016). Consequently, Bihar witnessed a substantial increase in its tele-density in the recent years, from 1.15 in 2001 to 54.3 in 2016.
11. Indian Postal services has the largest postal network in the world. Within Bihar, a total of 9067 post offices were in existence as on March, 2015, out of which 8591 (95 percent) were in rural areas and 476 (5 percent) in the urban areas. In terms of share in the all-India postal network, the share of Bihar at 6.2 percent of rural post offices is rather less, since Bihar accounts for 11.1 percent of country's rural population.
12. The ultimate irrigation potential in the state is estimated to be 117.54 lakh hectares, including major, medium and minor irrigation schemes. The created potential of 68.90 lakh hectares is 58.6 percent of the ultimate potential. The utilised potential of 56.66 lakh hectares, which is 82.2 percent of created potential and 48.2 percent of ultimate potential. If ultimate potential is exploited fully, it will be far more than the total demand for irrigation in the state.

## ENERGY SECTOR

1. There has been significant improvement in power availability in Bihar from 1712 MW in 2011-12 to 3769 MW in 2016-17, registering a growth about 120 percent in six years. The peak deficit in power has been around 30 percent for several years till 2012-13; by 2015-16, this deficit was reduced to around 16 percent. Due to increased availability of power from an average of 6-8 hours to 14-16 hours in rural areas and from 10-12 hours to 20-22 hours in urban areas, the per capita consumption in the state has risen from 145 kwh in 2012-13 to 258 kwh in 2015-16, implying a growth of about 78 percent in three years.
2. In order to meet the increased demand for power, the state government has already planned for additional capacity of 5589 MW from different sources — own generating stations, renewable energy sources, central generating stations, and long/ medium term Power Purchase Agreements (PPA) through competitive bidding. Out of this planned addition, about 171 MW shall be from non-conventional energy sources and 5418 MW from conventional sources. As such, the total available capacity for Bihar by 2018-19 is expected to be 8925 MW, of which 8220 MW will be conventional and the remaining 705 MW non-conventional.
3. The allocation of fund for BSPHCL and its subsidiary companies, Bihar Renewable Energy Development Agency (BRED A) and Bihar State Hydroelectric Power Corporation (BSHPC) was Rs. 3110.92 crore in 2013-14, which increased to Rs. 4189.92 crore in 2014-15. The outlay for 2016-17 is Rs. 8591.60 crore.
4. The generation and purchase of power (net of central transmission loss) in Bihar increased from 11,966 MU in 2011-12 to 21,677 MU in 2015-16. With increase in sales, the revenue collection has increased. The cost coverage has also risen from about 70 percent in 2011-12 to about 91 percent in 2015-16, thus bringing down financial loss from 30 percent to 9 percent.
5. Under Part-A of Integrated Power Development Scheme (IPDS) (erstwhile R-APDRP scheme), the work in 67 towns (excluding 4 franchise towns) is under progress. The distribution system is being strengthened under Part-B of the IPDS in 60 towns and under the ADB-funded scheme in 7 towns. The work in 7 towns under the ADB-funded scheme is on the verge of completion. The aim is to provide real-time monitoring and control, minimizing loss, balancing load, and improving voltage profiles.
6. Bihar, with 88.7 percent of its population living in rural areas (2011 census), remains the most ruralised state in India, the national average being around 68.9 percent. In view of this, the rural electrification work is being carried out in all the 38 districts of the state under Deen Dayal Upadhyay Gram Jyoti Yojana. Under electrification of unelectrified villages, a total of 23,757 villages have been electrified against a target of 24,771



unelectrified villages. Under intensive electrification of partially electrified villages, 23,415 village have been intensively electrified against a target of 39,767 partially electrified villages.

7. Presently, about 9307 circuit km EHV (Extra High Voltage) transmission line, 104 grid sub-stations with total transformation capacity of 5590 MVA at 220/132 KV level and 8720 MVA at 132/33 KV level comprise the transmission system in Bihar. The projection for 2017-18 is 9907 circuit km transmission line, 148 grid sub-stations with 14570 MVA at 220/132 KV level and 15210 MVA at 132/33 KV transmission capacity.
8. Out of the total generation capacity of power in Bihar as on March 2016, 86.4 percent is from coal based thermal power, 9.7 percent from hydro power and the balance 3.9 percent from renewable energy sources. In terms of ownership, central sector has the largest share of 77.2 percent, followed by the private sector/IPPs 15.6 percent and state sector 7.2 percent.

## **RURAL DEVELOPMENT**

1. Between 2004-05 and 2011-12, the poverty ratio in Bihar was reduced by 20.7 percentage points, from 54.4 percent in 2004-05 to 33.7 in 2011-12. It is heartening to note that this reduction in poverty level in Bihar was more than the reduction at all-India level (15.3 percentage points). Further, one may also note that the reduction in the poverty ratio in rural areas of Bihar (21.6 percentage point) was higher than in the urban areas (12.5 percentage points).
2. JEEVIKA is an initiative of the state government to reduce poverty. It has organised 70.98 lakh households into 5.57 lakh Self-Help Groups (SHGs) till October, 2016. It has also formed 32,431 Village Organisations (VO) and 365 Cluster Level Federations. The project emphasises on providing financial support to the SHGs by opening of saving bank account in different banks and ensuring their credit linkage. Till October 2016, 3.03 lakh SHGs have been linked with banks, and they were able to obtain a total loan of Rs. 2113 crore.
3. MGNREGS aims at enhancing livelihood security of rural workers by providing at least one hundred days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The number of job cards issued for MGNREGS has been very high, more than 130 lakhs throughout the period. In 2015-16, 99.8 percent of the fund was utilised, which is 25.5 percentage points higher than the utilization figure of the previous year. The total employment generated was 683.7 lakh persondays in 2015-16, compared to 352.7 lakh persondays in 2014-15. Overall, the performance of MGNREGS was much better in 2015-16.

4. Pradhan Mantri Awaas Yojana (PMAY) is the new name of erstwhile Indira Awas Yojana (IAY). It is a flagship programme of the Ministry of Rural Development and it has been in operation since 1985-86. The physical achievement under PMAY has been more than hundred percent in previous three years (2012-13 to 2014-15), but it has dropped to only 21.0 percent in 2015-16. The share of SC & STs in the total houses completed was as high as 90 percent in 2014-15. However, the fund utilized was only 54.6 percent in 2015-16.
5. The PDS for foodgrains is one of the main vehicles which ensure 'food security' to the people, especially the economically vulnerable ones. The total number of PDS dealers is 42,059 in 2016. The social groups accounting for major shares in PDS outlets are — backward castes (29.3 percent), general castes (19.4 percent), scheduled castes (16.4 percent) and Ex-Army Personnel (10.6 percent). These four categories together account for three-fourths of the PDS outlets.
6. The Panchayat system has been the backbone of rural economy. The Fifth State Finance Commission (2015-16 to 2019-20) has made its recommendations for the financial base of the PRIs. Under this recommendations, 2.75 percent of the actual total expenditure of the state and 8.50 percent of the State's Own Tax Revenue during the preceding financial year will be transferred each year to the PRIs. The distribution of the total transferred amount among the three tiers will be — Gram Panchayats (70 percent), Panchayat Samities (10 percent) and Zila Parishad (20 percent). Under this devolution scheme, a sum of Rs. 1081.16 crore has been sanctioned in 2016-17 as the first instalment.
7. The financial burden on the state government for disaster management was extremely high in 2015-16 when it had to spend Rs. 1289 crore for various programmes. A major part of this expenditure was for agricultural inputs (Rs. 1007 crore). During the last five years, the second highest expenditure was in 2013-14 (Rs. 663 crore) and the lowest in 2012-13 (Rs. 60 crore). For efficient disaster management, the state government has prepared a 15 year Disaster Risk Reduction (DRR) road map, following the Sendai Framework agreement, and Bihar is the first among all the Indian states to complete the exercise.
8. The protection of environment is a crucial requirement of any sustainable growth strategy. At Piparghatti near Bodh Gaya, a bio-diversity park is being developed, called 'Buddha Vatika'. On 23 hectares of land, this park will have all the indigenous tree species of Bihar. A second bio-diversity park is also being developed on 163 acres of land in Kusiargaon in Araria district.

## **URBAN DEVELOPMENT**

1. Bihar is the least urbanised state in the country, with an urbanisation level of only 11.3 percent, according to census 2011. The state accounts for 8.6 percent of India's total population, but it has only 3.1 percent of country's total urban population. Between 2001

and 2011, the increase in urbanisation was only 0.8 percentage point in Bihar, from 10.5 percent (2001) to 11.3 percent (2011). This slow pace of urbanisation in Bihar is indeed a long term phenomenon. Between 1961 and 2011, a span of half a century, the level of urbanisation in Bihar has increased by only 3.9 percentage point, from 7.4 percent (1961) to 11.3 percent (2011).

2. The state government is paying more attention to urban development in the recent years. In 2015-16, the total expenditure of the state government on urban development and housing was Rs. 3134 crore, compared to only Rs. 1290 crore in 2010-11. This implies an annual growth rate of 21.9 percent, indicating the state government's deep attention to this sector in recent years.
3. The state government has been collecting data on municipal finances for 28 largest towns in the state. In 2015-16, out of a total income of Rs. 683.10 crore, the revenue grants accounted for Rs. 454.90 crore (66.6 percent). In the recent past, the self-generated income of the local bodies has grown only at a modest rate of only 11.3 percent.
4. The Smart City Mission is an urban renewal programme initiated by the central government in June 2015. Three cities in Bihar were recognized for this initiative — Muzaffarpur, Bhagalpur and Biharsharif. The smart city proposal is to be implemented at a cost of Rs. 1309.30 crore, with Rs. 1000 crore shared equally between the state government and central government, Rs. 214.81 crore through convergence with various schemes, and the remaining Rs. 94.49 crore through PPP funding.

## **BANKING AND ALLIED SECTORS**

1. Till March 2016, of the total of 6661 branches of commercial banks in Bihar, 55 percent were located in rural areas, compared to 60 percent in 2011. In comparison with a record of 638 branches opened during 2013-14, the year 2015-16 saw only 364 new branches, with only 44 branches (12 percent) opened in rural areas, 224 branches (62 percent) in semi-urban areas, and 96 branches (26 percent) in urban areas. Bihar accounted for only 4.8 percent of all the bank branches in the country in June 2016, though its share in country's population was about 8.6 percent.
2. There has been a significant growth of Rs. 26,376 crore (13.9 percent) in the total deposits in Bihar in 2014-15 over the previous year. Simultaneously, the credit in 2014-15 has also expanded by Rs 10,400 crore, implying a high growth of 16.7 percent, but much less than 25.6 percent growth witnessed in the previous year. Bihar's share in the total deposits of Scheduled Commercial Banks remained the same (2.4 percent) in 2013-14 and 2014-15, and its share of credit improved marginally from 1.0 percent to 1.1 percent in this period. But, it is to be noted that the total bank credit in Bihar accounts for just about 1 percent of

the total bank credit in the country, while Bihar accounts for 8.6 percent of India's population.

3. As on September 2016, the aggregate deposits of all banks in Bihar were Rs 2,38,384 crore, against a credit of Rs 99,454 crore, resulting in a CD ratio of 41.7 percent, higher than the 36.7 percent in 2011-12, but lower than 47.4 percent in 2014-15. Even though there has been some improvement in the CD ratio in recent years, its low level continues to plague the banking scenario in Bihar.
4. The CD ratios showed a wide variation across the districts as of September 2016, from a low 26.6 percent in Siwan to a high of 68.7 percent for Kaimur. Among the Lead Banks, UCO Bank had the highest CD ratio of 46.0 percent as on September 2016, followed closely by Canara Bank (44.7 percent) and Union Bank of India (43.1 percent).
5. The priority sector advances constituted 76 percent of the total bank advances in the state. The share of agriculture in the total advances was 52 percent, about the same as in the previous year. It can be seen that while advances to agriculture dominated the credit in the state, the advances made to the small and medium scale industries were only 16 percent of the total loans disbursed in 2015-16, which was a little higher than 13 percent registered in 2014-15. This lower volume of credit to industry in Bihar is certainly a cause for concern.
6. As on March 2015, with 8463 PACS, Bihar accounts for 9.1 percent of all PACS in India. The PACS in Bihar are much behind the other states in terms of both deposits and borrowings. Also, out of the total 8463 PACS in Bihar, as many as 3962 societies are making losses, their total loss amounting to Rs 1 crore, while 1180 societies have earned a total profit of Rs 6 crore. The total deposits of all PACS were only Rs 175 crore, and their total borrowings amounted to Rs 501 crore.
7. The total financial support provided during 2015-16 by NABARD was Rs 6778 crore, less than the amount of Rs 7655 crore in 2014-15. There was substantial decrease in crop loan refinance, which was partly compensated by increase in investment credit refinancing. During the year, the shares of different components were — crop loan refinancing (35 percent), investment credit refinancing (47 percent) and RIDF loans (17 percent).
8. As of March, 2016, bank-linked SHG coverage in rural Bihar was 36.21 lakh households, up from 29.18 lakh a year before. The average savings of Rs 12,924 per SHG in Bihar was still well below the national average of Rs 17,324, and the gap has considerably widened in 2016. The average credit of Rs 62 thousand per SHG was again far below the national average of Rs 2.03 lakh. The total loans disbursed during 2015-16 to the SHGs by banks amounted to Rs 610 crore, which was much higher than Rs 471 crore disbursed in the previous year. Their outstanding loans at the end of 2015-16 stood at Rs 1002.48 crore, little less than the corresponding figure one year earlier (Rs 1026.76 crore). The non-

productive assets of SHGs in Bihar increased substantially from Rs 71.3 crore in 2014-15 to Rs 132.8 crore in 2015-16. Such non-productive assets in 2015-16 constituted 13.25 percent of total outstanding loans, compared to a much lower 6.94 percent in the previous year.

## **HUMAN DEVELOPMENT**

1. The state government has enhanced its development expenditure during the last five years and is utilizing 35 percent of its total expenditure on social services. Because of limited resources of the state government, the Per Capita Development Expenditure (PCDE) in Bihar has been low compared to the national average. However, during the last five years, the PCDE of Bihar has grown at 16.4 percent, nearly the same rate (17.1 percent) at which it has grown at all-India level.
2. The functioning of the public health institutions is improving steadily due to several initiatives taken by the state government. The average number of patients visiting government hospitals per month was 9317 in 2011, which has increased to 10,232 in 2016, implying an increase of 10 percent. This increase is primarily due to better infrastructure facilities, larger manpower, and proper monitoring of the health institutions.
3. Institutionalised delivery is an effective way to combat maternal morbidity and mortality. The institutional deliveries in Bihar have increased rapidly in the recent years. The number of institutional deliveries grew at an annual rate of 3.4 percent, even though there was a moderate drop in the number of institutional deliveries from 16.47 lakh in 2013-14 to 15.34 lakh in 2015-16. It is obvious that the significant decrease in Infant Mortality Rate (IMR) in Bihar in recent years is an outcome of the wider practice of institutional delivery.
4. Presently, 544 ICDS projects are operational in Bihar, covering all development blocks in 38 districts. The budget provisions for ICDS has steadily increased from Rs. 1255.9 crore in 2011-12 to Rs. 1409.7 crore in 2015-16, implying an annual growth rate of 7.3 percent . The fund utilisation has been generally high, in some years exceeding 100 percent.
5. National Rural Drinking Water Supply Programme (NRDWP), is to address water supply and sanitation problems in rural areas. In 2015-16, as many as 26.7 thousand handpumps have been installed under this programme. The goal of NRDWP is to ensure that, by 2022, every rural household in the country has access to at least 70 litres of water per capita per day (lpcd), within their household premises or at a distance of less than 50 meters. In 2015-16, there were 4.26 lakh additions in the construction of individual household latrines.
6. The state has made remarkable progress in literacy in the last decade. The literacy rate in Bihar increased from 47.0 percent in 2001 to 61.8 percent in 2011, implying an increase of 14.8 percentage point during the decade. This decadal increase is not only the highest

among all the decades since 1961, it is also the highest among all the states in India for the decade 2001-2011. The total enrolment at elementary level has been steadily increasing over the five years at an annual rate of 3.9 percent. The total enrolment in primary level was 161.35 lakhs in 2014-15, increasing from 149.34 lakhs in 2010-11. Similarly, at upper primary level, the total enrolment at this level in 2014-15 was 67.91 lakhs, indicating an annual growth rate of 9.6 percent. As a whole, the total enrolment, taking primary and upper primary together, rose to 229.26 lakhs in 2014-15 from 198.14 lakhs in 2010-11, implying an annual growth rate of 3.9 percent. The enrolment for SC and ST students during this period has grown at an even higher rate of 5.2 percent and 16.6 percent respectively.

7. The dropout rates in Bihar have continuously declined in the recent years. For the primary stage, the dropout rate was 39.3 percent in 2010-11, but it has reduced to 26.8 percent in 2014-15, implying a decrease of 12.4 percentage points. Similarly, in Upper Primary, a decrease of 10.1 percentage points, from 2010-11 (55.1 percent) to 2014-15 (45.1 percent), is also observed. As regards gender differences, it is appreciable that, at all the levels of education (elementary, secondary and higher secondary), the dropout rates of girl students are lower than that for the boys.
8. The Mid-Day Meal Scheme (MDMS) is a right-based scheme which was introduced to improve elementary education in Bihar. In 2011-12, the coverage of MDMS at primary level was 44.8 percent, which increased to 68.6 percent in 2015-16. Likewise, the coverage of MDMS at upper primary level was 39.2 percent in 2011-12 and it is 63.9 percent in 2015-16. Thus, the coverage of MDMS at both the levels have increased substantially over the last five years.
9. Higher education is of vital importance for the state. In 2015, there were 276 government colleges and 468 local body colleges. To ensure the delivery of quality education, teachers' training is very important, and there are 60 teacher training institutes in Bihar in 2015. In 2015, there were 23 engineering colleges in Bihar, compared to 10 colleges in 2013.
10. The total budget for SC/ST welfare increased from Rs. 1181.12 crore in 2014-15 to Rs. 1973.82 crore in 2015-16. The actual expenditure was Rs. 1740.67 crore in 2015-16, implying utilisation of 88.2 percent of the budget.
11. To expand the employment opportunities and fulfill the target of Aarthik Hal, Yuvaon ko Bal, one of the components of Saat Nischay, the state government has launched Kushal Yuva Programme on October 2, 2016. In order to enhance the scope of skill development, 149 courses have been selected by Bihar Skill Development Mission (BSDM) and it is being implemented by 15 Departments of the state government.

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## CHAPTER I

### BIHAR ECONOMY : AN OVERVIEW

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The growth momentum of the Bihar's economy, experienced in the last decade, was continued in the recent years also. Last year the Central Statistical Organisation has released a new series of GSDP, with 2011-12 as the base year for estimation of both national and state incomes. The new GSDP estimates also utilises some fresh data sources. According to these new estimates, the medium term growth rate for GSDP (2011-12 to 2015-16) in Bihar was 7.6 percent, compared to 6.8 percent for the national economy. Consequently, the Per Capita Income in Bihar was about 35 percent of the national average in 2015-16, compared to about 33 percent a decade ago. This high growth had obviously impacted the poverty scenario in the state and the poverty ratio had fallen from 54.4 percent in 2004-05 to 33.7 percent in 2011-12. When the next round of poverty estimates will be made available, it is almost certain to record even lower incidence of absolute poverty in Bihar. To supplement the gains from the economic growth, the state government has also initiated a number of welfare measures to improve the standard of living of the population. The main development focus of the state government is now around seven resolves (Saat Nischay) which include — welfare of the youth, women employment, supply of electricity to all households, clean drinking water, road connectivity, toilet facility and higher technical education.

A high level of investment generated vide financial discipline of the government during 2004-05 to 2014-15 has a bearing on the sustained growth rate around 10 percent during the said period. The state was able to generate revenue surpluses which kept development expenditure buoyant. Other parameters of fiscal performance were also kept within desired limits. Recently, the proclamation of prohibition had initially caused worry on the fiscal front due to an expected fall in commercial taxes collection, but other ways and means adopted by the state government will help it to tide over the situation. At present, the twin challenge of higher growth rate and inclusive development are being met by the state government with all due attention.

The current status of the state's overall economy along with various sectors are presented in this Economic Survey for 2016-17. In each sector, the analysis of the development would throw light on the efforts made by the state government with resultant achievements. The bottlenecks has also been underlined so that remedial measures could be undertaken. Apart from this introductory chapter, the survey has nine more chapters — State Finances, Agriculture and Allied Sectors, Enterprises Sectors, Infrastructure, Energy Sector, Rural Development, Urban Development, Banking and Allied Sector and finally, Human Development.



## 1.1 Demographic Profile

Population of a state is an important macro-economic variable which has a substantial role in determining its development indicators. The broad demographic profiles of Bihar and India have been presented in Table 1.1. According to 2011 census, Bihar's population was 104.1 million which is 8.6 percent of total population of India (1210.6 million). The demographic scenario in Bihar, as can be seen from the table, is not similar to that of India as a whole. In the first place, the decadal rate of growth of population (during the period 2001 and 2011) was reported to be 25.1 percent in Bihar, against 17.6 percent for India. Bihar is yet to experience the demographic transition, as experienced by most other states, and overcome the social and economic barriers attached to high rate of growth of population. Secondly, the density of population (1106 persons per sq.km) in Bihar is much higher than that of India (382 persons per sq.km). Such enormous pressure of population on land put up a major challenge of development for Bihar. Urbanisation is extremely low in Bihar as compared to India — 11.3 percent against 31.2 percent for India. This indicates that around 90 percent of the population lives in rural areas in Bihar which has a strong connotation for development. Here one may also note that decadal increase in urbanisation in Bihar has been only 0.8 percent, against a much larger increase (3.4 percent) in India. As regards sex ratio, it is lower in Bihar (918) than in India (943); but fortunately the child sex ratio in Bihar (935) is higher than the national average (919).

**Table 1.1 : Demographic Profile and Administrative Structure of Bihar and India (2001 and 2011)**

Demographic Indicator	Bihar		India	
	2001	2011	2001	2011
Population (million)	82.9	104.1	1028.7	1210.6
Sex Ratio (females per '000 males)	919	918	933	943
Child Sex Ratio	942	935	927	919
Density (persons per sq. km.)	880	1106	325	382
Urbanisation (Percentage)	10.5	11.3	27.8	31.2
Decadal Growth (Percentage)	28.6	25.1	21.5	17.6
No. of Districts	37	38	593	640
No. of CD blocks	533	534	5463	5924
No. of Towns (statutory/census)	130	199	5161	7935
No. of Villages	45098	39073	638596	597369

Source : Census of India, 2001 and 2011

The district-wise demographic profile of Bihar has been presented in Table A 1.1 (Appendix). In the table, community-wise population figures, sex-ratio (overall), sex-ratio (child), density of

population, urbanisation and decadal growth rate have been presented for all the districts. The figures indicate wide variation in indices across the districts. In terms of decadal growth of population, the best performing districts are — Arwal, Gopalganj and Darbhanga. Regarding sex ratio, the range of variation is from 876 (Munger) to 1021 (Gopalganj), the state average being 918. In case of child sex ratio, the figure are fairly uniform. Density of population also show wide variation. Out of the 38 districts, there are 10 districts where the density of population is very high at more than 1400 persons / sq.km.

## **1.2 State Domestic Product**

The estimates of State Domestic Product are prepared separately for both Gross State Domestic Product (GSDP) and Net State Domestic Product (NSDP), both at current and constant prices. In Table A 1.2 (Appendix) the estimates of GSDP and NSDP are presented for the period 2004-05 to 2014-15 at current and constant (2004-05) prices. In the second part (presented in the bottom half of the table) the estimates of GSDP and NSDP have been given for the period 2011-12 to 2015-16 at current and constant (2011-12) prices (New Series). In Table A 1.3 and A 1.4 (Appendix) the sector-wise estimates of GSDP are presented at current and constant (2011-12) prices for the period 2011-12 to 2015-16. Further, the sector-wise estimates of NSDP at current and constant (2011-12) prices for the same period are presented in Table A 1.5 and A 1.6 (Appendix) respectively.

The GSDP of Bihar at constant (2011-12) prices in 2015-16 was Rs. 3.27 lakh crore, yielding a Per Capita Income of Rs. 29,190. The estimated GSDP at current prices in 2015-16 is Rs. 4.14 lakh crore, implying a Per Capita Income of Rs. 36,964.

### Growth of State Income

During the last decade (2004-05 to 2014-15), the state income at constant prices grew annually at 10.1 percent. In the immediate past (2011-12 to 2015-16), the growth rate of GSDP in Bihar was 7.6 percent. This growth rate, however, is higher than the growth rate of 6.8 percent for the national economy. One should note here that the GSDP estimates with 2004-05 and 2011-12 bases are not really comparable because, apart from change in base year, there were also some methodological changes. The slower growth rate of the state's economy in the last five years is also due to the sluggishness of the national economy due to veracity of various macro-economic factors. But, as mentioned before, even now the growth rate of the state economy is higher than that of the national economy. Presently, Bihar is one of the fastest growing states in India.

### Behaviour of Sectoral Growth Rates

To identify the major contributors to growth of state income, one needs to examine the sectoral growth rates (Table 1.2). This table presents the sectoral growth rates at constant prices for the period 2011-12 to 2015-16. A glance at the various sectoral growth rates will indicate that the

**Table 1.2 : Sectoral Growth Rate of GSDP**

Sector		2011-12 to 2015-16	
Sl. No.	Item	Current Prices	Constant Prices
1.	Agriculture, forestry and fishing	5.8	-2.2
1.1	Crops	0.1	-7.4
1.2	Livestock	17.1	8.5
1.3	Forestry and logging	9.1	1.7
1.4	Fishing and aquaculture	21.9	10.0
2.	Mining and quarrying	42.5	42.6
	<b>Primary</b>	<b>6.0</b>	<b>-2.0</b>
3.	Manufacturing	23.5	17.7
4.	Electricity, gas, water supply & other utility services	-2.6	15.2
5.	Construction	8.6	2.1
	<b>Secondary</b>	<b>12.6</b>	<b>8.4</b>
6.	Trade, repair, hotels and restaurants	19.2	14.6
6.1	Trade & repair services	19.7	15.1
6.2	Hotels & restaurants	9.6	5.4
7.	Transport, storage, communication & services related to broadcasting	20.3	12.6
7.1	Railways	18.2	9.3
7.2	Road transport	21.5	13.6
7.3	Water transport	-15.7	-21.2
7.4	Air transport	46.4	37.0
7.5	Services incidental to transport	21.6	13.8
7.6	Storage	10.0	2.9
7.7	Communication & services related to broadcasting	19.2	12.6
8.	Financial services	9.0	6.3
9.	Real estate, ownership of dwelling & professional services	9.8	3.6
10.	Public administration	13.2	4.5
11.	Other services	22.8	12.6
	<b>Tertiary</b>	<b>17.0</b>	<b>10.4</b>
12.	<b>Total Gross State Value Added at basic prices</b>	13.5	7.1
13.	Taxes on Products	23.9	17.4
14.	Subsidies on products	19.8	13.5
15.	<b>Gross State Domestic Product</b>	<b>14.0</b>	<b>7.6</b>

following sectors, each recording growth rates of more than 10 percent, are probably drivers of growth of Bihar economy — manufacturing (17.7 percent), electricity, gas and water supply (15.2 percent), trade, repair, hotels and restaurants (14.6 percent), transport, storage and communications (12.6 percent), and fishing and aquaculture (10.0 percent).

**Table 1.3 : Per Capita Net State Domestic Product (NSDP) at (2011-12) Prices of Major Indian States**

State	Per Capita Income (in Rs.)				
	2011-12	2012-13	2013-14	2014-15	2015-16
Andhra Pradesh	68866	68730	74062	79441	87487
<b>Bihar</b>	<b>21750</b>	<b>22201</b>	<b>22776</b>	<b>25400</b>	<b>26801</b>
Chhattisgarh	55177	56761	60846	63638	NA
Gujarat	87481	96683	102589	109981	NA
Haryana	107343	112088	116543	124092	NA
Jharkhand	41254	44176	43779	48550	54140
Karnataka	89899	93771	101487	106896	112542
Kerala	97912	103551	107854	116006	NA
Madhya Pradesh	38550	41251	42686	44518	47820
Maharashtra	98910	103832	108915	113379	NA
Odisha	47019	48335	49908	52516	55116
Punjab	85577	88915	93555	96638	NA
Rajasthan	57427	58502	61175	64002	NA
Tamil Nadu	92984	96355	100233	106034	114712
Uttar Pradesh	32002	32746	34079	35694	38234
Uttarakhand	100497	106738	113140	116557	125055
<b>All-India</b>	<b>63460</b>	<b>65664</b>	<b>68867</b>	<b>72889</b>	<b>77435</b>

Source : Central Statistical Organisation; Government of India

To know more about the comparative status of economic growth of Bihar vis-à-vis other states, it is necessary to compare the Per Capita Income of various states. The Per Capita NSDP at constant (2011-12) of various states has been presented in Table 1.3 for the years 2011-12 to 2015-16. In spite of a high growth phenomenon (2005-06 to 2014-15), Bihar even now ranks the lowest in terms of Per Capita Income. However, the per capita income of Bihar in 2011-12 was 34 percent of all-India average; in 2015-16, this ratio went up to 35 percent. With the sustained growth process, the gap between Bihar and India was bridged by about a percentage point over a four year period. So, the momentum of growth has got to be sustained for many more years if the gap between the per capita income of Bihar and India is to be wiped out. Admittedly, once the growth process reaches a high point, the linkage effect within the economy starts working, thereby increasing the growth momentum. Yet, some big push in investment is urgently required, be it public or private, to attain a high plateau of development in near future.

### Structural Change of the Economy

It is historically observed that, with economic growth, the structure of any economy would show major changes. This is primarily because, with increase in income, the pattern of demand changes from primary sectors products to products of secondary sector and services sector. This expected trend can be judged from the figures in Table 1.4, which presents the sectoral composition of GSDP at constant (2011-12) prices for the period from 2011-12 to 2015-16. It may be mentioned here that GSVA (Gross State Value Added) is GSDP minus taxes on product and plus subsidies on products. In 2011-12, the share of the primary sector in total GSDP happened to be 25.2 percent, the secondary sectors' contribution was 18.3 percent and the remaining 54.3 percent was accounted for by the tertiary sector. In 2015-16 the changed shares are — primary (18.3 percent), secondary (18.1 percent) and tertiary (59.9 percent). This reveals that, over the four year period, the share of primary sector has fallen by 7 percentage points. During the same period, the contribution of tertiary sector has jumped by 6 percentage points and touched a high of around 60 percent.

Within the three broad groups (primary, secondary and tertiary), there are specific sectors and their shares have also changed substantially in some cases. Within the primary sector, there has been a fall in the contribution of the 'crops' sub-sector, whereas the 'livestock' sub-sector showed marginal improvement. In the tertiary sector, trade, repair, hotels and restaurants showed substantial increase (from 17.8 to 22.7 percent), but real estates, ownership of dwelling and professional services showed a decline (from 11.3 to 9.8 percent) over the period.

**Table 1.4 : Sectoral Composition of GSDP at Constant (2011-12) Prices**

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15 (P)	2015-16 (Q)
1.	Agriculture, forestry and fishing	25.1	26.5	22.1	19.6	18.1
1.1	Crops	17.2	18.5	13.8	11.6	10.3
1.2	Livestock	4.9	4.9	5.2	5.0	5.0
1.3	Forestry and logging	1.7	1.7	1.6	1.4	1.4
1.4	Fishing and aquaculture	1.3	1.5	1.5	1.5	1.5
2.	Mining and quarrying	0.1	0.1	0.5	0.2	0.2
	<b>Primary</b>	<b>25.2</b>	<b>26.6</b>	<b>22.6</b>	<b>19.8</b>	<b>18.3</b>
3.	Manufacturing	5.9	3.8	7.0	6.2	7.2
4.	Electricity, gas, water supply & other utility services	1.5	1.6	1.5	1.8	1.9
5.	Construction	10.9	10.0	10.1	9.0	8.9
	<b>Secondary</b>	<b>18.3</b>	<b>15.3</b>	<b>18.6</b>	<b>17.1</b>	<b>18.1</b>
6.	Trade, repair, hotels and restaurants	17.8	18.2	16.9	21.0	22.7
6.1	Trade & repair services	16.6	17.1	15.9	20.0	21.6
6.2	Hotels & restaurants	1.1	1.1	1.1	1.0	1.0
7.	Transport, storage, communication & services related to broadcasting	7.1	7.9	8.7	8.5	8.6
7.1	Railways	1.1	1.3	1.5	1.3	1.2
7.2	Road transport	3.4	3.9	4.2	4.2	4.3
7.3	Water transport	0.0	0.0	0.0	0.0	0.0
7.4	Air transport	0.0	0.0	0.0	0.0	0.0
7.5	Services incidental to transport	0.4	0.4	0.4	0.4	0.5
7.6	Storage	0.0	0.0	0.0	0.0	0.0
7.7	Communication & services related to broadcasting	2.2	2.3	2.5	2.5	2.6
8.	Financial services	3.6	3.7	3.8	3.5	3.5
9.	Real estate, ownership of dwelling & professional services	11.3	11.2	11.1	10.1	9.8
10.	Public administration	5.5	5.2	4.7	5.3	4.7
11.	Other services	9.0	9.8	10.2	11.4	10.5
	<b>Tertiary</b>	<b>54.3</b>	<b>56.1</b>	<b>55.4</b>	<b>59.8</b>	<b>59.9</b>
<b>12.</b>	<b>TOTAL GSVA at basic prices</b>	<b>97.8</b>	<b>98.0</b>	<b>96.7</b>	<b>96.7</b>	<b>96.3</b>
13.	Taxes on Products	6.9	7.6	8.4	8.8	10.0
14.	Subsidies on products	4.7	5.6	5.1	5.5	6.3
<b>15.</b>	<b>Gross State Domestic Product</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### 1.3 Regional Disparity

As there exists disparity in Per Capita Income across the states of India, there also exists similar disparity among the districts of Bihar. This is visible from the district-wise data on Per Capita GDDP (Gross District Domestic Product) in 2011-12, as shown in Table A 1.7 (Appendix). The ranking of the districts has been given in the brackets for each district. In 2011-12, Patna, Munger and Begusarai turn out to be the most prosperous districts of the state. The poorest districts according to the data are — Madhepura, Supaul and Sheohar. If one leaves out Patna (the capital of the state), the per capita income of Munger is more than 3 times that of Sheohar, the poorest district.

Apart from a measure of GDDP, consumption of Petrol, Diesel and Cooking Gas can also throw some light on the economic disparity among the districts. In Table A 1.8 (Appendix), data relating to the consumption of various petroleum products in different districts is presented for 2014-15 and 2015-16. The table also presents the average consumption levels for those two years, the shares of districts in total consumption, and their shares in total population. If the share of consumption is higher than that of population share, the district is identified as relatively prosperous. Based on this method, 3 most prosperous and most backward districts have been identified, and their names have been presented in Table 1.5. Patna happens to be the most prosperous district for all three indicators. For Patna, compared to the population share of 5.6 percent, the consumption shares are — Petrol (13.6), Diesel (10.0 percent) and Cooking Gas (15.4 percent). The analysis also shows that for Petrol, Patna is followed by Muzaffarpur and East Champaran; in case of Diesel, Patna is followed by East Champaran and Muzaffarpur; and in case of Cooking Gas, Patna is followed by Muzaffarpur and East Champaran. In terms of these indicators, the most disadvantaged districts are Sheohar, Supaul, Madhepura, Arwal, Sheikhpura and West Champaran.

**Table 1.5 : Relatively Prosperous and Backward Districts of Bihar**

Criteria	Top 3 districts	Bottom 3 districts
GDDP	Patna, Munger, Begusarai	Sheohar, Supaul, Madhepura
Petrol	Patna, Muzaffarpur, East Champaran	Sheohar, Arwal, Sheikhpura
Diesel	Patna, East Champaran, Muzaffarpur	Sheohar, Arwal, Sheikhpura
LPG	Patna, Muzaffarpur, East Champaran	Sheikhpura, Sheohar, Arwal
Small Savings	Patna, Saran, Nalanda	West Champaran, Sitamarhi, Araria

The deposits in small savings kept in Post Offices and Public Provident Fund across the districts can also be considered as another index of relative prosperity of the districts. The data related to such deposits is given in Table A 1.9 (Appendix). In the table, the averages for these deposits for the years 2013-14, 2014-15 and 2015-16 are also presented, along with percentage share of these averages for each districts in total savings. A higher percentage share of each districts vis-à-vis its population share would indicate the relative prosperity of the district. The relatively prosperous districts on this count are — Patna, Saran and Nalanda (Table 1.5). At the other end, the backward districts as per the above indicator are — West Champaran, Sitamarhi and Araria.

#### 1.4 Study of Statewise Inflation Rates during 2015 and 2016

The estimates of wholesale and consumer price indices indicate the trend of price movement over time. In India, the Wholesale Price Index (WPI) is available for union and Consumer Price Indices (CPI) are available for the union and its states. Based on those figures, in Table 1.6, statewise inflation rates of CPI have been presented for September 2016 over September 2015. In the table, we have also indicated the CPI for rural as well as urban for September, 2015 and September, 2016.

**Table 1.6 : State-wise Annual Inflation Rates for CPI (base: 2012 = 100)**

State	Rural			Urban			Combined		
	Sep. 15 Index (Final)	Sep. 16 Index (Prov.)	Inflation Rate (%)	Sep. 15 Index (Final)	Sep. 16 Index (Prov.)	Inflation Rate (%)	Sep. 15 Index (Final)	Sep. 16 Index (Prov.)	Inflation Rate (%)
Andhra Pradesh	128.9	137.1	6.36	125.8	131.1	4.21	127.8	134.9	5.56
<b>Bihar</b>	<b>131.6</b>	<b>135.2</b>	<b>2.74</b>	<b>125.1</b>	<b>127.2</b>	<b>1.68</b>	<b>130.7</b>	<b>134.0</b>	<b>2.52</b>
Chhattisgarh	133.3	138.5	3.90	122.5	127.8	4.33	129.1	134.4	4.11
Gujarat	126.4	136.3	7.83	121.2	125.5	3.55	123.5	130.2	5.43
Haryana	124.1	130.1	4.83	120.9	124.1	2.65	122.6	127.3	3.83
Jharkhand	129.2	137.3	6.27	123.6	127.2	2.91	127.1	133.4	4.96
Karnataka	129.8	135.4	4.31	128.8	134.7	4.58	129.3	135.0	4.41
Kerala	125.4	130.6	4.15	125.7	131.2	4.38	125.5	130.8	4.22
Madhya Pradesh	125.1	129.5	3.52	124.2	127.5	2.66	124.7	128.7	3.21
Maharashtra	126.3	133.2	5.46	120.1	124.2	3.41	122.2	127.2	4.09
Odisha	130.5	138.9	6.44	123.6	127.4	3.07	128.6	135.7	5.52
Punjab	123.3	129.8	5.27	122.8	126.6	3.09	123.1	128.4	4.31
Rajasthan	127.6	135.4	6.11	123.7	129.4	4.61	126.2	133.3	5.63
Tamil Nadu	125.1	130.3	4.16	125.5	130.1	3.67	125.3	130.2	3.91
Uttar Pradesh	125.5	132.2	5.34	124.4	128.7	3.46	125.1	130.9	4.64
Uttarakhand	123.3	127.7	3.57	117.9	120.9	2.54	121.3	125.2	3.22
West Bengal	126.6	133.7	5.61	123.9	129.0	4.12	125.3	131.5	4.95
<b>All India</b>	<b>127.0</b>	<b>133.3</b>	<b>4.96</b>	<b>123.5</b>	<b>128.0</b>	<b>3.64</b>	<b>125.4</b>	<b>130.8</b>	<b>4.31</b>

Source: RBI and Labour Bureau, Government of India.



From Table 1.6, we can note that the rise in prices in September 2016 over September 2015 for rural Bihar have been comparatively slower than that for India as a whole. Compared to a inflation rate of 4.96 percent for rural India, the rate for rural Bihar has been lower at 2.74 percent. The states with higher inflation rates are — Gujarat (7.83 percent), Odisha (6.44 percent), Andhra Pradesh (6.36 percent), Jharkhand (6.27 percent) and Rajasthan (6.11 percent). In case of inflation rate for urban areas, it has again been lower at Bihar (1.68 percent), compared to the whole of India (3.64 percent). Since the inflation rate has been lower in Bihar for both rural and urban areas, the overall rate is also lower in Bihar (2.52 percent), with the all-India rate at 4.31 percent.

## APPENDIX

**Table A 1.1 : District-wise Demographic Profile of Bihar (2011)**

District	Hindu (Lakh)	Muslim (Lakh)	Other Religion (Lakh)	Sex Ratio (Overall)	Sex Ratio (child)	Density	Urbanis ation	Decadal Growth
Patna	91.7	7.5	0.7	897	909	1803	43.1	23.7
Nalanda	92.8	6.9	0.3	922	931	1220	15.9	21.4
Bhojpur	92.3	7.3	0.5	907	918	1136	14.3	21.6
Buxar	93.3	6.2	0.6	922	934	1003	9.6	21.7
Rohtas	89.4	10.2	0.5	918	931	763	14.5	20.8
Kaimur	89.5	9.5	0.9	920	942	488	4.0	26.2
Gaya	88.3	11.1	0.6	937	960	880	13.2	26.4
Jehanabad	92.9	6.7	0.4	922	922	1206	12.0	21.7
Arwal	90.5	9.2	0.4	928	940	1099	7.4	18.9
Nawada	88.5	11.0	0.5	939	945	889	9.7	22.6
Aurangabad	90.2	9.3	0.5	926	944	760	9.3	26.2
Saran	89.4	10.3	0.3	954	926	1493	8.9	21.6
Siwan	81.4	18.3	0.3	988	940	1495	5.5	22.7
Gopalganj	82.7	17.0	0.3	1021	954	1258	6.4	19.0
W. Champaran	77.4	22.0	0.6	909	953	750	10.0	29.3
E. Champaran	80.1	19.4	0.4	902	933	1281	7.9	29.4
Muzaffarpur	84.0	15.5	0.5	900	915	1506	9.9	28.1
Sitamarhi	78.1	21.6	0.3	899	930	1491	5.6	27.6
Sheohar	84.2	15.1	0.7	893	929	1882	4.3	27.2
Vaishali	90.2	9.6	0.2	895	904	1717	6.7	28.6
Darbhanga	77.3	22.4	0.3	911	931	1721	9.7	19.5
Madhubani	81.4	18.2	0.4	926	936	1279	3.6	25.5
Samastipur	89.2	10.6	0.2	911	923	1465	3.5	25.5
Begusarai	86.0	13.7	0.3	895	919	1540	19.2	26.4
Munger	91.6	8.1	0.4	876	922	958	27.8	20.2
Sheikhpura	93.7	5.9	0.4	930	940	922	17.1	21.1
Lakhisarai	95.6	4.1	0.4	902	920	815	14.3	24.8
Jamui	86.7	12.4	1.0	922	956	567	8.3	25.9
Khagaria	89.2	10.5	0.3	886	926	1115	5.2	30.2
Bhagalpur	81.9	17.7	0.4	880	938	1180	19.8	25.4
Banka	87.1	12.3	0.5	907	943	672	3.5	26.5
Saharsa	85.7	14.0	0.3	906	933	1125	8.2	26.0
Supaul	81.2	18.4	0.4	929	944	919	4.7	28.7
Madhepura	87.6	12.1	0.3	911	930	1116	4.4	31.1
Purnea	60.9	38.5	0.6	921	954	1014	10.5	28.3
Kishanganj	31.4	68.0	0.6	950	971	898	9.5	30.4
Araria	56.7	42.9	0.4	921	957	992	6.0	30.2
Katihar	54.9	44.5	0.7	919	961	1004	8.9	28.4
<b>Bihar</b>	<b>82.7</b>	<b>16.9</b>	<b>0.4</b>	<b>918</b>	<b>935</b>	<b>1106</b>	<b>11.3</b>	<b>25.4</b>

Source : Census of India, 2011

**Table A 1.2 : Gross State Domestic Product (GSDP) and Net State Domestic Product (NSDP) of Bihar At Factor Cost**

Year	GSDP (Rs. crore)		NSDP (Rs. crore)		Per Capita GSDP (Rs.)	
	At current prices	At constant (2004-05) prices	At current prices	At constant (2004-05) prices	At current prices	At constant (2004-05) prices
<b>Base Year 2004-05</b>						
2004-05	77781	77781	70167	70167	8773	8773
2005-06	82490	76466	74144	68419	9149	8481
2006-07	100737	88840	91331	80260	10994	9695
2007-08	113680	93774	102853	84415	12215	10076
2008-09	142279	107412	129690	97284	15060	11369
2009-10	162923	113158	148151	101938	16998	11806
2010-11	203555	130171	185745	117503	20944	13393
2011-12	243269	143560	222442	129521	24696	14574
2012-13	293616	158909	268902	143250	29425	15925
2013-14 (P)	343663	173409	315225	156671	34014	17163
2014-15 (Q)	402283	189789	369576	171802	39341	18560
<b>CAGR (2004-15)</b>	<b>18.9</b>	<b>10.0</b>	<b>19.1</b>	<b>10.1</b>	<b>17.2</b>	<b>8.5</b>
<b>Base Year 2011-12</b>						
2011-12	247144	247144	228497	228497	23525	23525
2012-13	282368	256851	261327	236932	26459	24068
2013-14	317101	269650	292143	246915	29251	24874
2014-15 (P)	373920	304766	345571	279711	33954	27675
2015-16 (Q)	413503	326535	382223	299814	36964	29190
<b>CAGR (2011-16)</b>	<b>14.0</b>	<b>7.6</b>	<b>14.0</b>	<b>7.4</b>	<b>12.2</b>	<b>5.9</b>

Note : P - Provisional, Q - Quick  
Source : Directorate of Economics and Statistics, GOB

**Table A 1.3 : Gross State Domestic Product (GSDP) of Bihar at Factor Cost (Current Prices)**

(Rs. crore)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15 (P)	2015-16 (Q)	CAGR (2011-16)
1.	Agriculture, forestry and fishing	62067	76700	73719	79519	80950	5.8
1.1	Crops	42608	53365	45223	46882	45772	0.1
1.2	Livestock	12028	14811	18316	20603	22470	17.1
1.3	Forestry and logging	4187	4571	5010	5501	5910	9.1
1.4	Fishing and aquaculture	3244	3953	5170	6532	6797	21.9
2.	Mining and quarrying	199	234	1508	681	685	42.5
	<b>Primary</b>	<b>62265</b>	<b>76934</b>	<b>75227</b>	<b>80200</b>	<b>81636</b>	<b>6.0</b>
3.	Manufacturing	14666	10351	21209	21900	28930	23.5
4.	Electricity, gas, water supply & other utility services	3659	4422	3859	3452	3631	-2.6
5.	Construction	27017	27810	31848	34498	36677	8.6
	<b>Secondary</b>	<b>45341</b>	<b>42583</b>	<b>56916</b>	<b>59849</b>	<b>69237</b>	<b>12.6</b>
6.	Trade, repair, hotels and restaurants	43904	51755	52051	74484	87892	19.2
6.1	Trade & repair services	41109	48672	48735	70814	83830	19.7
6.2	Hotels & restaurants	2796	3083	3316	3670	4062	9.6
7.	Transport, storage, communication & services related to broadcasting	17545	21616	26850	31472	36582	20.3
7.1	Railways	2751	3348	3957	4624	5404	18.2
7.2	Road transport	8405	10697	13479	15723	18337	21.5
7.3	Water transport	49	26	17	22	22	-15.7
7.4	Air transport	31	58	46	136	136	46.4
7.5	Services incidental to transport	893	1120	1425	1666	1947	21.6
7.6	Storage	74	84	85	106	106	10.0
7.7	Communication & services related to broadcasting	5342	6282	7842	9194	10629	19.2
8.	Financial services	8839	9774	11223	11780	12365	9.0
9.	Real estate, ownership of dwelling & professional services	28023	31217	34604	37406	40820	9.8
10.	Public administration	13587	14777	15768	20782	21295	13.2
11.	Other services	22193	28043	34046	45876	48453	22.8
	<b>Tertiary</b>	<b>134092</b>	<b>157182</b>	<b>174542</b>	<b>221800</b>	<b>247406</b>	<b>17.0</b>
<b>12.</b>	<b>TOTAL GSVA at basic prices</b>	<b>241698</b>	<b>276699</b>	<b>306685</b>	<b>361849</b>	<b>398280</b>	<b>13.5</b>
13.	Taxes on Products	17169	21185	26236	32135	40671	23.9
14.	Subsidies on products	11724	15517	15820	20064	25448	19.8
<b>15.</b>	<b>Gross State Domestic Product</b>	<b>247144</b>	<b>282368</b>	<b>317101</b>	<b>373920</b>	<b>413503</b>	<b>14.0</b>
16.	Population (crore)	10.51	10.67	10.84	11.01	11.19	1.6
<b>17.</b>	<b>Per Capita GSDP (Rs.)</b>	<b>23525</b>	<b>26459</b>	<b>29251</b>	<b>33954</b>	<b>36964</b>	<b>12.2</b>

Note : Data of 2014-15 is Provisional Estimates and 2015-16 Quick Estimates;

Source : Directorate of Economics and Statistics, GOB

**Table A 1.4 : Gross State Domestic Product (GSDP) of Bihar at Factor Cost (2011-12 Prices)**

(Rs. crore)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15 (P)	2015-16 (Q)	CAGR (2011-16)
1.	Agriculture, forestry and fishing	62067	68040	59516	59715	59145	-2.2
1.1	Crops	42608	47493	37107	35426	33601	-7.4
1.2	Livestock	12028	12525	14008	15371	16298	8.5
1.3	Forestry and logging	4187	4253	4330	4399	4473	1.7
1.4	Fishing and aquaculture	3244	3768	4071	4518	4773	10.0
2.	Mining and quarrying	199	216	1386	629	688	42.6
	<b>Primary</b>	<b>62265</b>	<b>68256</b>	<b>60902</b>	<b>60343</b>	<b>59832</b>	<b>-2.0</b>
3.	Manufacturing	14666	9714	18893	19010	23650	17.7
4.	Electricity, gas, water supply & other utility services	3659	4017	4128	5508	6341	15.2
5.	Construction	27017	25607	27261	27484	28991	2.1
	<b>Secondary</b>	<b>45341</b>	<b>39339</b>	<b>50282</b>	<b>52001</b>	<b>58982</b>	<b>8.4</b>
6.	Trade, repair, hotels and restaurants	43904	46729	45683	64066	74087	14.6
6.1	Trade & repair services	41109	43945	42775	60912	70667	15.1
6.2	Hotels & restaurants	2796	2784	2908	3154	3421	5.4
7.	Transport, storage, communication & services related to broadcasting	17545	20372	23473	25833	28241	12.6
7.1	Railways	2751	3346	3965	3959	3952	9.3
7.2	Road transport	8405	9962	11373	12676	14125	13.6
7.3	Water transport	49	24	15	18	17	-21.2
7.4	Air transport	31	54	38	110	105	37.0
7.5	Services incidental to transport	893	1043	1202	1343	1500	13.8
7.6	Storage	74	79	71	86	82	2.9
7.7	Communication & services related to broadcasting	5342	5863	6808	7642	8461	12.6
8.	Financial services	8839	9580	10273	10772	11295	6.3
9.	Real estate, ownership of dwelling & professional services	28023	28686	29819	30928	32139	3.6
10.	Public administration	13587	13350	12752	16090	15450	4.5
11.	Other services	22193	25297	27478	34669	34279	12.6
	<b>Tertiary</b>	<b>134092</b>	<b>144015</b>	<b>149478</b>	<b>182357</b>	<b>195491</b>	<b>10.4</b>
<b>12.</b>	<b>TOTAL GSVA at basic prices</b>	<b>241698</b>	<b>251609</b>	<b>260662</b>	<b>294702</b>	<b>314306</b>	<b>7.1</b>
13.	Taxes on Products	17169	19588	22638	26793	32672	17.4
14.	Subsidies on products	11724	14347	13650	16729	20443	13.5
<b>15.</b>	<b>Gross State Domestic Product</b>	<b>247144</b>	<b>256851</b>	<b>269650</b>	<b>304766</b>	<b>326535</b>	<b>7.6</b>
16.	Population (crore)	10.51	10.67	10.84	11.01	11.19	1.6
<b>17.</b>	<b>Per Capita GSDP (Rs.)</b>	<b>23525</b>	<b>24068</b>	<b>24874</b>	<b>27675</b>	<b>29190</b>	<b>5.9</b>

Note : Data of 2014-15 is Provisional Estimates and 2015-16 Quick Estimates;

Source : Directorate of Economics and Statistics, GOB

**Table A 1.5 : Net State Domestic Product (NSDP) of Bihar at Factor Cost (Current Prices)**

(Rs. crore)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15 (P)	2015-16 (Q)	CAGR (2011-16)
1.	Agriculture, forestry and fishing	57852	71802	67874	72908	73671	5.1
1.1	Crops	39053	49248	40320	41349	39680	-1.4
1.2	Livestock	11795	14525	17975	20240	22071	17.2
1.3	Forestry and logging	4141	4520	4953	5438	5840	9.1
1.4	Fishing and aquaculture	2862	3509	4625	5881	6081	22.4
2.	Mining and quarrying	174	203	1291	574	568	40.6
	<b>Primary</b>	<b>58025</b>	<b>72005</b>	<b>69166</b>	<b>73482</b>	<b>74239</b>	<b>5.3</b>
3.	Manufacturing	12681	8450	19073	19729	26540	26.2
4.	Electricity, gas, water supply & other utility services	2431	2892	2554	2235	2291	-3.7
5.	Construction	25764	26372	29909	32459	34432	8.2
	<b>Secondary</b>	<b>40876</b>	<b>37713</b>	<b>51536</b>	<b>54423</b>	<b>63263</b>	<b>13.2</b>
6.	Trade, repair, hotels and restaurants	43256	50952	51087	73401	86700	19.2
6.1	Trade & repair services	40564	47998	47926	69896	82820	19.8
6.2	Hotels & restaurants	2692	2955	3161	3505	3880	9.4
7.	Transport, storage, communication & services related to broadcasting	14845	18612	22530	26084	30650	19.6
7.1	Railways	2022	2558	2996	3525	4193	19.5
7.2	Road transport	7582	9771	12282	14543	17037	22.3
7.3	Water transport	44	20	10	14	13	-23.7
7.4	Air transport	15	40	22	109	106	63.8
7.5	Services incidental to transport	761	971	1233	1466	1727	22.8
7.6	Storage	63	74	72	89	87	8.6
7.7	Communication & services related to broadcasting	4359	5178	5916	6339	7486	13.7
8.	Financial services	8700	9601	11035	11566	12129	8.9
9.	Real estate, ownership of dwelling & professional services	25298	28025	30922	33292	36222	9.3
10.	Public administration	10485	11490	12339	16613	16705	13.9
11.	Other services	21567	27259	33112	44638	47090	22.8
	<b>Tertiary</b>	<b>124151</b>	<b>145940</b>	<b>161025</b>	<b>205595</b>	<b>229497</b>	<b>17.0</b>
<b>12.</b>	<b>Total NSVA at basic prices</b>	<b>223052</b>	<b>255658</b>	<b>281727</b>	<b>333500</b>	<b>366999</b>	<b>13.4</b>
13.	Taxes on Products	17169	21185	26236	32135	40671	23.9
14.	Subsidies on products	11724	15517	15820	20064	25448	19.8
<b>15.</b>	<b>Net State Domestic Product</b>	<b>228497</b>	<b>261327</b>	<b>292143</b>	<b>345571</b>	<b>382223</b>	<b>14.0</b>
16.	Population (crore)	10.51	10.67	10.84	11.01	11.19	1.6
<b>17.</b>	<b>Per Capita NSDP (Rs.)</b>	<b>21750</b>	<b>24487</b>	<b>26948</b>	<b>31380</b>	<b>34168</b>	<b>12.2</b>

Note : Data of 2014-15 is Provisional Estimates and 2015-16 Quick Estimates

Source : Directorate of Economics and Statistics, GOB

**Table A 1.6 : Net State Domestic Product (NSDP) of Bihar at Factor Cost (2011-12 Prices)**

(Rs. crore)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15 (P)	2015-16 (Q)	CAGR (2011-16)
1.	Agriculture, forestry and fishing	57852	63491	54487	54318	53384	-3.1
1.1	Crops	39053	43675	32908	30942	28815	-9.1
1.2	Livestock	11795	12260	13706	15058	15964	8.4
1.3	Forestry and logging	4141	4206	4280	4345	4414	1.6
1.4	Fishing and aquaculture	2862	3350	3593	3973	4191	9.8
2.	Mining and quarrying	174	187	1187	534	587	41.7
	<b>Primary</b>	<b>58025</b>	<b>63678</b>	<b>55674</b>	<b>54852</b>	<b>53971</b>	<b>-2.9</b>
3.	Manufacturing	12681	7896	16913	17042	21549	20.1
4.	Electricity, gas, water supply & other utility services	2431	2542	2904	4389	5146	22.7
5.	Construction	25764	24235	25437	25625	27007	1.5
	<b>Secondary</b>	<b>40876</b>	<b>34674</b>	<b>45253</b>	<b>47055</b>	<b>53702</b>	<b>8.9</b>
6.	Trade, repair, hotels and restaurants	43256	45972	44805	63107	73064	14.6
6.1	Trade & repair services	40564	43309	42038	60100	69800	15.2
6.2	Hotels & restaurants	2692	2663	2767	3007	3264	5.2
7.	Transport, storage, communication & services related to broadcasting	14845	17490	19386	20822	22918	11.0
7.1	Railways	2022	2605	3088	2976	2903	8.9
7.2	Road transport	7582	9077	10265	11599	12975	14.1
7.3	Water transport	44	18	7	10	9	-30.7
7.4	Air transport	15	37	17	85	105	60.7
7.5	Services incidental to transport	761	899	1021	1160	1304	14.3
7.6	Storage	63	68	60	70	66	1.0
7.7	Communication & services related to broadcasting	4359	4785	4927	4921	5556	5.3
8.	Financial services	8700	9412	10095	10573	11082	6.2
9.	Real estate, ownership of dwelling & professional services	25298	25724	26548	27392	28365	3.0
10.	Public administration	10485	10191	9553	12292	11395	3.6
11.	Other services	21567	24550	26613	33553	33088	12.4
	<b>Tertiary</b>	<b>124151</b>	<b>133339</b>	<b>137000</b>	<b>167739</b>	<b>179912</b>	<b>10.2</b>
<b>12.</b>	<b>Total NSVA at basic prices</b>	<b>223052</b>	<b>231691</b>	<b>237927</b>	<b>269647</b>	<b>287585</b>	<b>6.8</b>
13.	Taxes on Products	17169	19588	22638	26793	32672	17.4
14.	Subsidies on products	11724	14347	13650	16729	20443	13.5
<b>15.</b>	<b>Net State Domestic Product</b>	<b>228497</b>	<b>236932</b>	<b>246915</b>	<b>279711</b>	<b>299814</b>	<b>7.4</b>
16.	Population (crore)	10.51	10.67	10.84	11.01	11.19	1.6
<b>17.</b>	<b>Per Capita NSDP (Rs.)</b>	<b>21750</b>	<b>22201</b>	<b>22776</b>	<b>25400</b>	<b>26801</b>	<b>5.7</b>

Note : Data of 2014-15 is Provisional Estimates and 2015-16 Quick Estimates

Source : Directorate of Economics and Statistics, GOB

**Table A 1.7 : District-wise Per Capita Gross District Domestic Product (2004-05 Prices)**

(Rupees)

District	2007-08	2008-09	2009-10	2010-11	2011-12
Patna	43448 (1)	48719 (1)	53428 (1)	57823 (1)	63063 (1)
Nalanda	8219 (14)	9152 (11)	9787 (10)	10971 (11)	12561 (8)
Bhojpur	8775 (8)	10146 (8)	10134 (8)	11537 (9)	12459 (10)
Buxar	8368 (12)	8992 (15)	8812 (18)	9732 (20)	11289 (15)
Rohtas	9544 (7)	10950 (6)	10908 (7)	12265 (6)	13909 (6)
Kaimur	7564 (21)	8441 (22)	7785 (27)	9539 (22)	10412 (24)
Gaya	8660 (9)	9135 (12)	9519 (15)	10504 (18)	11897 (13)
Jehanabad	7490 (24)	8588 (19)	8478 (22)	9322 (24)	11182 (17)
Arwal	6475 (33)	7028 (35)	7283 (35)	8133 (35)	9125 (34)
Nawada	6739 (31)	7409 (32)	7602 (30)	8437 (31)	9560 (30)
Aurangabad	7575 (20)	7922 (29)	8189 (23)	9293 (25)	11012 (18)
Saran	7522 (23)	7938 (28)	8559 (20)	9576 (21)	10615 (23)
Siwan	7377 (26)	8864 (16)	8042 (26)	9192 (26)	10685 (22)
Gopalganj	7646 (17)	8059 (26)	8543 (21)	10386 (19)	12129 (12)
W. Champaran	8476 (11)	9484 (10)	9706 (11)	10577 (17)	9971 (27)
E. Champaran	6223 (35)	8457 (21)	7571 (31)	8790 (29)	10735 (21)
Muzaffarpur	9814 (5)	11602 (5)	12159 (5)	14082 (5)	15402 (5)
Sitamarhi	6180 (37)	7301 (33)	7456 (32)	8274 (33)	9538 (31)
Sheohar	5541 (38)	6128 (38)	5438 (38)	6208 (38)	7092 (38)
Vaishali	7728 (16)	9604 (9)	9937 (9)	11591 (8)	12490 (9)
Darbhanga	7614 (18)	8516 (20)	9036 (16)	10798 (12)	10932 (19)
Madhubani	6216 (36)	7643 (30)	7455 (33)	10607 (15)	9241 (33)
Samastipur	7559 (22)	8729 (18)	8843 (17)	10705 (14)	10762 (20)
Begusarai	12419 (3)	15001 (3)	14235 (4)	18433 (3)	17587 (3)
Munger	15791 (2)	17034 (2)	18554 (2)	21011 (2)	22051 (2)
Sheikhpura	7209 (28)	8105 (25)	7775 (28)	8377 (32)	9687 (29)
Lakhisarai	9549 (6)	10209 (7)	10950 (6)	11870 (7)	13073 (7)
Jamui	7584 (19)	8028 (27)	8186 (24)	8944 (28)	10166 (25)
Khagaria	8517 (10)	9111 (13)	9642 (12)	10603 (16)	11515 (14)
Bhagalpur	12097 (4)	13351 (4)	14253 (3)	15870 (4)	17324 (4)
Banka	6882 (30)	7596 (31)	7724 (29)	7756 (37)	9269 (32)
Saharsa	8164 (15)	8744 (17)	9591 (14)	11268 (10)	12197 (11)
Supaul	6382 (34)	6790 (36)	7043 (36)	8193 (34)	8492 (37)
Madhepura	6920 (29)	6602 (37)	6979 (37)	8096 (36)	8609 (36)
Purnea	7419 (25)	8228 (23)	8743 (19)	9357 (23)	10099 (26)
Kishanganj	7312 (27)	8120 (24)	8085 (25)	9126 (27)	9928 (28)
Araria	6635 (32)	7251 (34)	7376 (34)	8534 (30)	8776 (35)
Katihar	8267 (13)	9060 (14)	9594 (13)	10721 (13)	11278 (16)
<b>Bihar</b>	<b>10076</b>	<b>11369</b>	<b>11806</b>	<b>13393</b>	<b>14574</b>

Note : Figures in parenthesis denote rank  
Source : Directorate of Economics and Statistics, GOB



**Table A 1.8 : District-wise Consumption of Petroleum Products**

(Figures in MT)

District	Share of population	Petrol			Diesel			LPG		
		2014-15	2015-16	Average and Share	2014-15	2015-16	Average and Share	2014-15	2015-16	Average and Share
Patna	5.6	61819	71347	66583 (13.6)	186342	202322	194332 (10)	105255	115764	110510 (15.4)
Nalanda	2.8	8457	10644	9551 (2.0)	43224	52314	47769 (2.4)	18905	21006	19956 (2.8)
Bhojpur	2.6	9942	12418	11180 (2.3)	49712	54289	52000 (2.7)	21976	24031	23004 (3.2)
Buxar	1.6	6859	8010	7435 (1.5)	35911	36878	36395 (1.9)	10671	12440	11555 (1.6)
Rohtas	2.9	12898	15185	14041 (2.9)	75582	80797	78190 (4.0)	19423	22216	20819 (2.9)
Kaimur	1.6	5572	6660	6116 (1.3)	30883	35711	33297 (1.7)	6465	7334	6900 (1.0)
Gaya	4.2	15621	18839	17230 (3.5)	68270	79538	73904 (3.8)	23890	27770	25830 (3.6)
Jehanabad	1.1	2922	3605	3264 (0.7)	14506	17174	15840 (0.8)	8241	9015	8628 (1.2)
Arwal	0.7	1872	2274	2073 (0.4)	9733	10464	10099 (0.5)	3413	4107	3760 (0.5)
Nawada	2.1	5011	6168	5590 (1.1)	29209	33650	31429 (1.6)	12424	13872	13148 (1.8)
Aurangabad	2.4	8421	10459	9440 (1.9)	53281	61512	57397 (2.9)	12066	13844	12955 (1.8)
Saran	3.8	16787	20195	18491 (3.8)	62959	72081	67520 (3.5)	26710	29924	28317 (3.9)
Siwan	3.2	17584	20748	19166 (3.9)	52181	58584	55382 (2.8)	24116	27880	25998 (3.6)
Gopalganj	2.5	14109	17437	15773 (3.2)	42814	52984	47899 (2.5)	20669	24565	22617 (3.2)
W Champaran	3.8	14919	23406	19163 (3.9)	59712	77141	68427 (3.5)	20693	25188	22941 (3.2)
E Champaran	4.9	21602	30323	25962 (5.3)	103557	120518	112038 (5.7)	28994	36269	32631 (4.5)
Muzaffarpur	4.6	26803	32020	29411 (6.0)	102000	116318	109159 (5.6)	39593	45636	42615 (5.9)
Sitamarhi	3.3	9845	15632	12738 (2.6)	40279	47168	43723 (2.2)	18374	22824	20599 (2.9)
Sheohar	0.6	1325	1600	1463 (0.3)	4554	5509	5032 (0.3)	3179	4103	3641 (0.5)
Vaishali	3.4	18811	22562	20686 (4.2)	74367	82491	78429 (4)	29731	32958	31344 (4.4)
Darbhanga	3.8	14499	17427	15963 (3.3)	53649	59677	56663 (2.9)	26905	31306	29106 (4.1)
Madhubani	4.3	15202	24286	19744 (4)	44626	56585	50606 (2.6)	20704	27616	24160 (3.4)
Samastipur	4.1	15700	18911	17306 (3.5)	64791	70133	67462 (3.5)	20473	24385	22429 (3.1)
Begusarai	2.8	11049	13100	12074 (2.5)	76217	84600	80408 (4.1)	20517	24760	22639 (3.2)
Munger	1.3	4596	5366	4981 (1)	14872	16151	15511 (0.8)	12340	13527	12933 (1.8)
Sheikhpura	0.6	1757	2081	1919 (0.4)	11320	12889	12104 (0.6)	2870	3468	3169 (0.4)
Lakhisarai	1	2186	2634	2410 (0.5)	18021	18171	18096 (0.9)	5002	5688	5345 (0.7)
Jamui	1.7	4170	5097	4634 (0.9)	18946	21847	20396 (1.0)	5593	7062	6327 (0.9)
Khagaria	1.6	4163	4898	4530 (0.9)	30547	32864	31705 (1.6)	6184	7516	6850 (1.0)
Bhagalpur	2.9	11895	14421	13158 (2.7)	61020	73017	67019 (3.4)	21467	24365	22916 (3.2)
Banka	2	4292	5528	4910 (1)	20203	24931	22567 (1.2)	6510	7412	6961 (1.0)
Saharsa	1.8	6136	7293	6714 (1.4)	26086	29661	27874 (1.4)	8748	9993	9371 (1.3)
Supaul	2.1	6934	11774	9354 (1.9)	26732	38845	32789 (1.7)	6675	8074	7375 (1.0)
Madhepura	1.9	6880	8157	7519 (1.5)	29795	32169	30982 (1.6)	8113	8919	8516 (1.2)
Purnea	3.2	13836	16661	15248 (3.1)	75203	81706	78455 (4.0)	13231	14630	13930 (1.9)
Kishanganj	1.6	6706	8665	7686 (1.6)	20274	23440	21857 (1.1)	5033	5713	5373 (0.7)
Araria	2.7	10766	17568	14167 (2.9)	51283	65489	58386 (3.0)	8922	10335	9629 (1.3)
Katihar	3	9956	11526	10741 (2.2)	39231	42054	40642 (2.1)	11809	13437	12623 (1.8)
<b>Bihar</b>	<b>100</b>	<b>431902</b>	<b>544924</b>	<b>488413 (100)</b>	<b>1821893</b>	<b>2081674</b>	<b>1951784 (100)</b>	<b>665884</b>	<b>768953</b>	<b>717418 (100)</b>

Note : Figures in the parenthesis present percent share of Bihar

Source : Indian Oil Corporation

Table A 1.9 : District-wise Small Savings in Post Offices and Public Provident Fund

(Rs. crore)

District	Share of population	2013-14		2014-15		2015-16		Trinium Average of Achievements (2013-16)	Share of Achievements (%)
		Target	Achievement	Target	Achievement	Target	Achievement		
Patna	5.6	96	210	175	301	300	466	326	14.8
Nalanda	2.8	66	126	115	152	180	249	176	8.0
Bhojpur	2.6	73	156	140	153	200	176	162	7.3
Buxar	1.6	20	37	30	51	50	79	56	2.5
Rohtas	2.9	23	32	34	47	60	116	65	3.0
Kaimur	1.6	10	15	15	20	24	45	27	1.2
Gaya	4.2	30	29	25	41	70	73	48	2.2
Jehanabad	1.1	10	18	15	17	24	35	23	1.1
Arwal	0.7	8	12	10	11	16	19	14	0.6
Nawada	2.1	48	70	67	93	105	107	90	4.1
Aurangabad	2.4	15	12	10	19	25	64	32	1.4
Saran	3.8	84	147	140	170	190	241	186	8.4
Siwan	3.2	50	59	50	71	90	127	86	3.9
Gopalganj	2.5	40	69	62	76	85	97	81	3.7
E. Champaran	3.8	23	30	25	39	45	58	42	1.9
W. Champaran	4.9	20	27	25	27	40	42	32	1.4
Muzaffarpur	4.6	47	54	48	65	80	94	71	3.2
Sitamarhi	3.3	8	15	12	19	30	39	24	1.1
Sheohar	0.6	2	4	3	5	5	9	6	0.3
Vaishali	3.4	40	78	65	72	100	98	83	3.8
Darbhanga	3.8	39	62	58	65	90	100	76	3.4
Madhubai	4.3	26	42	39	52	62	69	54	2.5
Samastipur	4.1	23	58	50	47	75	81	62	2.8
Begusarai	2.8	26	39	35	40	55	51	43	2.0
Munger	1.3	18	31	27	26	40	67	41	1.9
Sheikhpura	0.6	6	10	9	7	12	22	13	0.6
Lakhisarai	1	6	10	9	7	15	22	13	0.6
Jamui	1.7	10	22	15	21	24	23	22	1.0
Khagaria	1.6	6	9	7	9	15	13	10	0.5
Bhagalpur	2.9	49	75	70	67	100	94	79	3.6
Banka	2	3	10	5	9	12	21	13	0.6
Saharsa	1.8	14	29	23	36	37	35	33	1.5
Supaul	2.1	11	21	17	27	27	29	26	1.2
Madhepura	1.9	11	22	17	27	27	25	25	1.1
Purnea	3.2	16	23	20	16	35	31	23	1.1
Kishanganj	1.6	4	8	6	7	10	8	8	0.3
Araria	2.7	6	9	7	6	10	10	8	0.4
Katihar	3	13	27	20	23	35	25	25	1.1
<b>Bihar</b>	<b>100</b>	<b>1000</b>	<b>1707</b>	<b>1500</b>	<b>1941</b>	<b>2400</b>	<b>2957</b>	<b>2202</b>	<b>100.0</b>

Source: Department of Finance, GOB

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## CHAPTER II

### STATE FINANCES

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The fiscal year 2016-17 was marked by many important developments initiated by the central government which will have substantial impact on the finances of the state government. The most important of these have been the enactment of the 122<sup>nd</sup> Constitution Amendment Act providing for the introduction of Goods and Services Tax (GST) all over India. This will subsume most of the indirect taxes presently being collected by the central and state governments. The GST will subsume central indirect taxes like excise duty, countervailing duty and service tax, as also most of the state indirect taxes. The final consumer will bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all the previous stages. As a measure of support for the states, petroleum products, alcohol for human consumption and tobacco have been kept out of the purview of the GST. The excise from the sale of alcohol does not of course affect Bihar which has already imposed total prohibition in the state for larger considerations of social good.

The GST is a destination based tax, and it will have three components — central GST (CGST), state GST (SGST) and GST on inter-state trade or commerce (IGST). The IGST would be collected by the central government and would be divided between the centre and the states in a manner to be decided by the Parliament, on the recommendations of the GST Council. The Council will comprise the Union Finance Minister as Chairman, the Union Minister of State of Finance and the Finance Ministers of every state. The Act also proposes an additional tax not exceeding 1 percent on inter-state trade in goods, to be levied and collected by the central government to compensate the states for losses to them resulting from the implementation of GST. The GST Council is presently busy finalizing the drafts of three bills to be passed by Parliament, viz., (i) Model GST Bill, dealing with central and state GST, (ii) IGST Bill dealing with inter-state trade and (iii) GST (Compensation to the States for Loss of Revenue) Bill, all of which have already been released in the public domain.

For the purpose of compensation to the states, the projected annual growth rate of revenue for a state during the transition period shall be 14 percent, taking 2015-16 as the base year. The base year revenue for a state shall be the sum of the revenue collected by the state government and local bodies on account of the taxes, net of refunds, with respect to the following taxes :

- (a) VAT, sales tax, purchase tax, tax collected on works contract, or any other tax levied by the concerned state under the erstwhile Entry 54 of the State List;

- (b) Central Sales Tax (CST) levied by the Central Sales Tax Act, 1956;
- (c) Entry tax, octroi, local body tax or any other tax levied by the concerned state under the erstwhile Entry 52 of the State List;
- (d) Taxes on luxuries, including taxes on entertainments, amusements, betting and gambling or any other tax levied by the concerned state under the erstwhile Entry 62 of the State List;
- (e) Taxes on advertisement or any other tax levied by the concerned state under the erstwhile Entry 55 of the State List;
- (f) Duties of excise on medicinal and toilet preparations levied by the Union (under the erstwhile Article 268 of the Constitution), but collected and retained by the concerned state under the erstwhile State List and
- (g) Any cess or surcharge levied by the state government under any Act.

The State List mentioned above refers to the one, prior to the 101st Amendment Act, 2016. Of the taxes mentioned above, the Department of Commercial Taxes in Bihar collects VAT, CST, Entry Tax, Entertainment Tax, Luxury Tax, and Taxes on Advertisement. The total collection from these taxes during 2014-15 and 2015-16 were respectively Rs 13,150 crore and Rs 17,015 crore, including the excise duty on alcohol, abolished in January, 2016. The GST is to be rolled out mandatorily by September 15, 2017, after which the current taxation powers of the central and the state governments will cease to apply. With the introduction of GST, the framework for federal financial relation is now poised for substantial change. It is too early to predict now what effect it will have on the finance of a poor state like Bihar, especially because the GST Council is still busy finalizing the modalities for the three tier tax regime.

The second most important development has been the demonetization of higher denomination notes which is expected to have severe impact on the economic activities of the states, at least in the short term, affecting their economic growth. Again, what impact it will have on the revenue and GSDP of a poor state like Bihar is yet to be seen.

Another important development in public finance was the abolition of the artificial distinction between plan and non-plan expenditure with effect from the next fiscal. It is a belated recognition of the fact that both are equally important for the development of the states. This is a welcome development after the abolition of the direct off-budget transfers in respect of the Centrally Sponsored Schemes which upholds the spirit of financial federalism in the country.

As regards state finances in Bihar, the state government had passed the Bihar Fiscal Responsibility and Budget Management (FRBM) Act in February 2006, committing itself to, among others, keeping the Gross Fiscal Deficit (GFD) to a level of less than 3 percent of GSDP.

This in general limited the scope for state government to borrow more and invest in capital assets. The Fourteenth Finance Commission's recommendations, however, have allowed a little flexibility to all states in this respect. The state governments will now be eligible for flexibility of 0.25 percent over and above the limit of 3 percent for any given year, provided their debt-GSDP ratio is less than or equal to 25 percent in the preceding year. The state governments will be further eligible for an additional borrowing limit of 0.25 percent of GSDP in a given year, provided the interest payments are less than or equal to 10 percent of the revenue receipts in the preceding year. Thus, a state government can have a GFD which is within the limit of 3.5 percent of GSDP. However, this higher limit for the borrowing under either of the two options will be available to a state government, only if there is no revenue deficit in the year of borrowing and in the preceding year.

The development effort in an economically disadvantaged state like Bihar hinges greatly on the proper management of its finances. Such management generates future optimism by strengthening the government's capacity for policy implementation. In this direction, the state government has already made some significant progress by improving the quality of expenditure and increasing the revenue, including the revenues from its own sources. The capital outlay has continuously increased for the much-needed investments in infrastructure. The delivery of public services and goods have significantly improved, and the economic growth rate in Bihar has surpassed the national growth rate during the recent years. Significant increases in social sector spending had led to improvement in the quality of life, as reflected by most socio-economic indicators. The poverty scenario has also been improving, especially in the rural areas.

## **2.1 Overview of Financial Position**

The financial and fiscal performance of the state government have been analysed in the following sections, first by summarizing its receipts and expenditures (Table 2.1), and then by comparing the trends in eight major performance indicators relating to Bihar and other major Indian states (Table 2.2). The actual figures have been used for the period 2011-12 to 2015-16, taken from the Finance Accounts of the state; for 2016-17, the budget estimates have been used. For other states, however, actual figures have been used only for 2014-15, while Revised Estimates (RE) and Budget Estimates (BE) have been used for 2015-16 and 2016-17 respectively. The finances of the state government have been later analysed with reference to — (i) Fiscal Performance, (ii) Deficit Management, (iii) Debt Management, (iv) Resource Management, (v) Expenditure Management, (vi) State Budget, and (vii) Overview of the performance of State Public Sector Undertakings.

Ever since 2004-05 when a modest revenue surplus of only Rs 1076 crore could be generated, Bihar has consistently been a revenue surplus state. The revenue surplus has increased from Rs

4820 crore in 2011-12 to Rs 12,507 crore in 2015-16, the highest so far, exceeding the budgetary expectations of Rs 14,649 crore. This has allowed the state government to increase its capital spending by more than Rs 5800 crore during the year. This has also allowed the state government to limit its Gross Fiscal Deficit to only 2.9 percent of new estimate of GSDP (2011-12 series), well within the FRBMA limits. If one uses the old estimate of GSDP (2004-05 series), then the ratio is even lower at 2.4 percent. Nearly half of the increased capital outlay of Rs. 23,966 crore was financed by the revenue surplus. The budget estimates of 2016-17 has projected the revenue surplus to increase further to Rs 14,649 crore.

The primary accounts of the state finances, however, reflects a deficit which has steeply increased till 2014-15, but thereafter, it decreased marginally from Rs 5050 crore in 2014-15 to Rs 4964 crore in 2015-16. It is projected to rise steeply to Rs 7835 crore in 2016-17, due to higher increase in capital outlay. While the revenue receipts increased by Rs 17,706 crore during 2015-16 over the previous year to reach at a peak of Rs 96,123 crore, the revenue expenditure went up by Rs 11,046 crore to Rs 83,616 crore. It was the increases in development expenditure (Rs 9,540 crore) that accounted for 67 percent of the increase in revenue expenditure. The 23 percent growth in the revenue receipts witnessed during 2015-16 was the highest revenue growth witnessed so far, and the increases came almost entirely (94 percent) from an unprecedented 29 percent growth in total tax revenues, by Rs 16,659 crore. Even the own revenues of the state government registered a high growth of 23 percent. The revenue growth was somewhat subdued in the previous years due to the stagnation in the growth in the tax receipts, a consequence of judicial order for VAT collection. The central grants had predictably increased by Rs 6562 crore just after the recommendations of the Fourteenth Finance Commission to Rs 19,146 crore in 2014-15. In 2015-16, it increased only marginally to Rs 19,566 crore. The non-tax revenue in 2015-16 has registered a healthy increase by Rs 628 crore, after stagnating at Rs 1558 crore in the previous year. In the current fiscal, both the tax revenue as well as the central grants are expected to increase substantially by Rs 13,718 crore and Rs 14,577 crore respectively.

The Gross Fiscal Deficit has increased by only Rs 883 crore in 2015-16, compared to the increase of Rs 2827 crore in the previous year, reflecting the state's resolve to maintain fiscal discipline. It is projected to increase to Rs 16,014 crore in the current fiscal due to substantial increases in capital outlay and social sector expenditure. Total borrowings during 2015-16 increased by Rs 4465 crore, amounting to Rs 18,383 crore, while interest payments went up by Rs 969 crore, amounting to Rs 7098 crore. The debt level increased to 21.5 percent of the GSDP during 2015-16, from 19.9 percent in the previous year. It is expected to increase further to 22.5 percent during the current fiscal. The trend and summary of state finances during the six-year period (2011-17) is shown in Table 2.1.

Table 2.1 : Receipts and Expenditure

(Rs. crore)

Sl. No.	Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>1</b>	<b>Total Receipts Revenue Account</b>	<b>51320</b>	<b>59567</b>	<b>68919</b>	<b>78417</b>	<b>96123</b>	<b>124590</b>
a	Tax Revenue	40547	48153	54790	57713	74372	88090
b	Non Tax Revenue	890	1135	1545	1558	2186	2358
c	Grants in Aid and Contributions	9883	10278	12584	19146	19566	34142
<b>2</b>	<b>Total Exp. Revenue Account</b>	<b>46500</b>	<b>54466</b>	<b>62477</b>	<b>72570</b>	<b>83616</b>	<b>109941</b>
a	General Services, of which	17730	18645	22018	26408	27972	36185
	Interest Payments	4304	4428	5459	6129	7098	8179
b	Social Services	18729	23107	26395	31713	35943	47147
c	Economic Services	10038	12710	14060	14445	19696	26605
d	Grants-in-aid	3	4	4	4	4	5
<b>3</b>	<b>Revenue Deficit</b>	<b>-4820</b>	<b>-5101</b>	<b>-6441</b>	<b>-5847</b>	<b>-12507</b>	<b>-14649</b>
<b>4</b>	<b>Capital Receipts</b>	<b>6650</b>	<b>9579</b>	<b>9922</b>	<b>15411</b>	<b>18402</b>	<b>21272</b>
a	Public Debt etc.	6628	9554	9907	13918	18383	21255
b	Recovery of Loan and Advances	23	25	15	1493	19	17
<b>5</b>	<b>Capital Expenditure, of which</b>	<b>13682</b>	<b>14740</b>	<b>17928</b>	<b>22128</b>	<b>28712</b>	<b>34755</b>
a	Capital Outlay	8852	9585	14001	18150	23966	30107
b	Loans and Advances	1906	2086	807	369	621	574
c	Public Debt.	2922	3070	3120	3609	4125	4074
<b>6</b>	<b>Total Expenditure</b>	<b>60182</b>	<b>69207</b>	<b>80405</b>	<b>94698</b>	<b>112328</b>	<b>144696</b>
a	Plan Expenditure	23008	28381	33678	43939	53732	72419
b	Non Plan Expenditure	37174	40825	46728	50759	58596	72277
<b>7</b>	<b>Gross Fiscal Deficit</b>	<b>5915</b>	<b>6545</b>	<b>8352</b>	<b>11179</b>	<b>12062</b>	<b>16014</b>
<b>8</b>	<b>Primary Deficit</b>	<b>1611</b>	<b>2117</b>	<b>2893</b>	<b>5050</b>	<b>4964</b>	<b>7835</b>
<b>9</b>	<b>Total Borrowings</b>	<b>6628</b>	<b>9554</b>	<b>9907</b>	<b>13918</b>	<b>18383</b>	<b>21255</b>
a	Internal Debt Receipt	5801	9046	9357	13199	17565	19299
b	Loans from Central Government	827	508	550	718	818	1956
<b>10</b>	<b>Repayment of Public Debt</b>	<b>2922</b>	<b>3070</b>	<b>3120</b>	<b>3609</b>	<b>4125</b>	<b>4074</b>
<b>11</b>	<b>Public Debt Outstanding</b>	<b>50990</b>	<b>57474</b>	<b>64262</b>	<b>74570</b>	<b>88829</b>	<b>106009</b>
<b>12</b>	<b>GSDP</b>	<b>247144</b>	<b>282368</b>	<b>317101</b>	<b>373920</b>	<b>413503</b>	<b>471391</b>
<b>As percentage of GSDP</b>							
<b>1</b>	<b>Total Receipts Revenue Account</b>	<b>20.8</b>	<b>21.1</b>	<b>21.7</b>	<b>21.0</b>	<b>23.2</b>	<b>26.4</b>
a	Tax Revenue	16.4	17.1	17.3	15.4	18.0	18.7
b	Non Tax Revenue	0.4	0.4	0.5	0.4	0.5	0.5
c	Grants in aid and contr.	4.0	3.6	4.0	5.1	4.7	7.2
<b>2</b>	<b>Total Exp. Revenue Account</b>	<b>18.8</b>	<b>19.3</b>	<b>19.7</b>	<b>19.4</b>	<b>20.2</b>	<b>23.3</b>
a	General Services, of which	7.2	6.6	6.9	7.1	6.8	7.7
	Interest payments	1.7	1.6	1.7	1.6	1.7	1.7
b	Social Services	7.6	8.2	8.3	8.5	8.7	10.0
c	Economic Services	4.1	4.5	4.4	3.9	4.8	5.6
d	Grants-in-aid	0.0	0.0	0.0	0.0	0.0	0.0
<b>3</b>	<b>Revenue Deficit</b>	<b>-2.0</b>	<b>-1.8</b>	<b>-2.0</b>	<b>-1.6</b>	<b>-3.0</b>	<b>-3.1</b>
<b>4</b>	<b>Capital Receipts</b>	<b>2.7</b>	<b>3.4</b>	<b>3.1</b>	<b>4.1</b>	<b>4.5</b>	<b>4.5</b>
a	Public Debt etc.	2.7	3.4	3.1	3.7	4.4	4.5
b	Recovery of Loan and Advances	0.0	0.0	0.0	0.4	0.0	0.0
<b>5</b>	<b>Capital Expenditure, of which</b>	<b>5.5</b>	<b>5.2</b>	<b>5.7</b>	<b>5.9</b>	<b>6.9</b>	<b>7.4</b>
a	Capital Outlay	3.6	3.4	4.4	4.9	5.8	6.4
b	Loans and Advances	0.8	0.7	0.3	0.1	0.2	0.1
c	Public Debt.	1.2	1.1	1.0	1.0	1.0	0.9
<b>6</b>	<b>Total Expenditure</b>	<b>24.4</b>	<b>24.5</b>	<b>25.4</b>	<b>25.3</b>	<b>27.2</b>	<b>30.7</b>
a	Plan Expenditure	9.3	10.1	10.6	11.8	13.0	15.4
b	Non Plan Expenditure	15.0	14.5	14.7	13.6	14.2	15.3
<b>7</b>	<b>Gross Fiscal Deficit</b>	<b>2.4</b>	<b>2.3</b>	<b>2.6</b>	<b>3.0</b>	<b>2.9</b>	<b>3.4</b>
<b>8</b>	<b>Primary Deficit</b>	<b>0.7</b>	<b>0.7</b>	<b>0.9</b>	<b>1.4</b>	<b>1.2</b>	<b>1.7</b>
<b>9</b>	<b>Total Borrowing</b>	<b>2.7</b>	<b>3.4</b>	<b>3.1</b>	<b>3.7</b>	<b>4.4</b>	<b>4.5</b>
a	Internal Debt Receipt	2.3	3.2	3.0	3.5	4.2	4.1
b	Loans from Central Government	0.3	0.2	0.2	0.2	0.2	0.4
<b>10</b>	<b>Repayment of Public Debt</b>	<b>1.2</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>0.9</b>
<b>11</b>	<b>Debt Outstanding</b>	<b>20.6</b>	<b>20.4</b>	<b>20.3</b>	<b>19.9</b>	<b>21.5</b>	<b>22.5</b>

Source : State Government Budgets

### Revenue Account

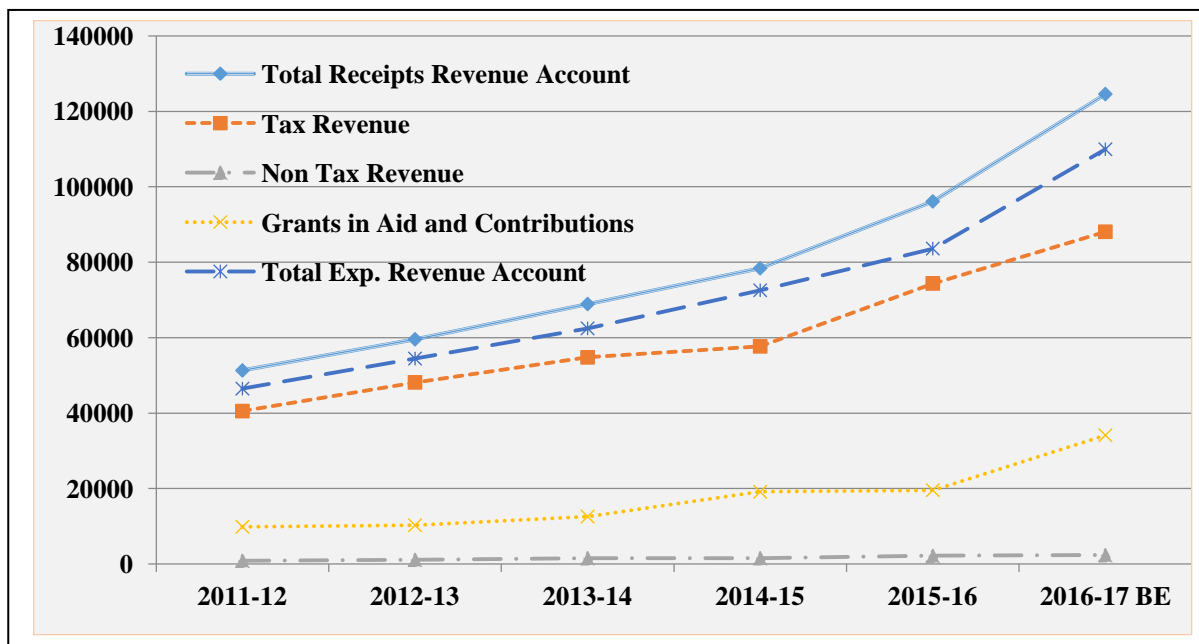
As pointed out already, in 2015-16 budgets estimates, Bihar's revenue surplus was projected to increase to Rs 14,649 crore, more than double the amount of Rs 5847 crore registered in the previous year; but, it actually increased to Rs 12,507 crore. The revenue receipts increased by Rs 17,706 crore, of which Rs 16,659 crore (94 percent) came from increases in tax revenues alone. The central grants increased by only Rs 420 crore and non-tax revenues by Rs 628 crore. Within the broad head of tax revenue, own tax revenue of the state government increased by only Rs 4699 crore (28 percent of increase) and most of the increase (72 percent) came from increase in the state's share of central taxes by Rs 11,960 crore. These increases were much higher compared to the previous year, when the increases in state's own revenue was Rs. 789 crore and increase in its share of central taxes was Rs 2134 crore. Further, in 2015-16, contribution of the state's own revenues to the growth of overall revenues was much higher, compared to the previous year, restoring the trend that was broken in the last year. The growth rate of the own revenues of the state government, tax plus non-tax, improved substantially to 22 percent during 2015-16, from 18 percent in the year before. The own revenue of the state government constituted 29 percent of its total revenue receipts, compared to 28 percent in the previous year. The share of central taxes accounted for 51 percent of the total revenue receipts in 2015-16 (47 percent in 2014-15) and central grants constituted the remaining 20 percent of the total revenues (24 percent in 2014-15).

The revenue expenditure in 2015-16 increased by Rs 11,046 crore over that in 2014-15, of which social services accounted for Rs 4230 crore (38 percent), economic services for Rs 5251 crore (48 percent), and the general services for Rs. 4564 crore (14 percent). The corresponding figures in the previous year stood at 53 percent, 4 percent and 43 percent respectively. The most remarkable was the significant increase in economic services during 2015-16, which reflects the state government's determination to maintain the standards of economic assets created within the state. As regards their respective shares in the total revenue expenditure, social services claimed 43 percent, economic services 24 percent and general services 33 percent. Of the increase in general services by Rs 1564 crore during 2015-16, interest payment alone accounted for an additional expenditure of Rs 969 crore, compared to an increase of Rs 670 crore in 2014-15. Pension payments accounted for another Rs 505 crore. Thus, these two heads together claimed 94 percent of the total increase in general services during 2015-16. The pension liability of the state government has increased rapidly over the years, from only Rs 7808 crore in 2011-12 to Rs 11,850 crore in 2015-16, increasing annually at about 11 percent. The salary payments to the state government employees also accounted for increases in revenue expenditure by Rs 317 crore in 2015-16, compared to an increase of Rs 570 crore in 2014-15. During 2015-16, salary payments amounted to Rs 14,924 crore. The salary and pension expenditure of the state government will be discussed in details later in this chapter.



The budget estimates of 2016-17 aimed at substantially higher levels of revenue expenditure as well as capital outlay, to be financed by much higher revenue collection as well as substantially higher devolution of central taxes and grants. The total expenditure during 2016-17, revenue plus capital, was budgeted to be Rs 1,44,696 crore, compared to actual expenditure of Rs 1,12,328 crore in 2015-16, an increase of 29 percent. The actual increase in total expenditure was about 19 percent last year.

**Chart 2.1 : Revenue Accounts of Bihar Government (Rs. crore)**



### Developmental Revenue Expenditure and Capital Outlay

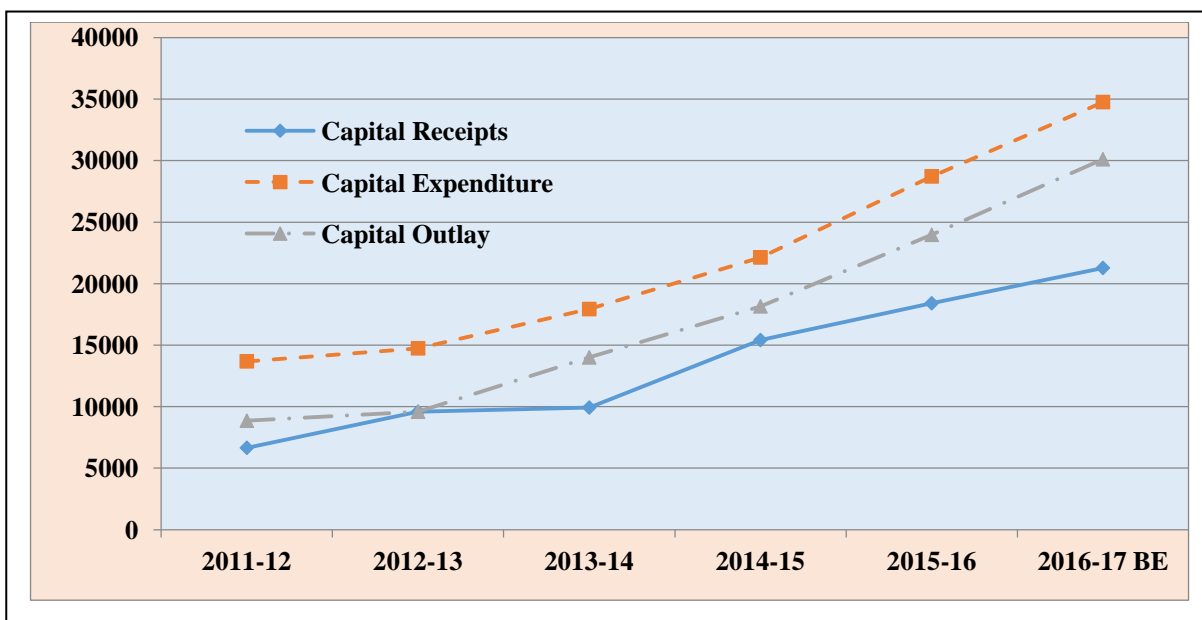
The developmental revenue expenditure on social and economic services increased by Rs 9481 crore in 2015-16, over that in the last fiscal. Between 2011-12 and 2015-16, the developmental revenue expenditure increased almost two-folds from Rs. 28,767 crore to Rs. 55,639 crore, while the non-developmental revenue expenditure grew at a slower rate, rising from Rs. 17,730 crore to Rs. 27,972 crore, bulk of it owing to pension as well as interest payments. Of the total capital outlay of Rs 23,966 crore in 2015-16, as much as Rs 17,609 crore (73 percent) was spent on economic services, almost 25 percent of it (Rs 4417 crore) on creating the transport infrastructure of roads and bridges, Rs 2794 crore (16 percent) on power, and nearly 10 percent (Rs 1685 crore) on irrigation and flood control. The capital outlay on social services amounted to Rs 2740 crore; out of this, 40 percent (Rs 1091 crore) was spent on creating and improving health infrastructure, 28 percent (Rs. 773 crore) on improving the water supply and sanitation, and 20 percent (Rs 550 crore) on creating educational infrastructure in the state.

The surplus in the revenue account has all along played a substantial role in the growth story of Bihar. The revenue surplus was achieved primarily due to increase in revenue receipts, supplemented by the containment of revenue expenditure. Between 2011-12 and 2015-16, the total revenue receipts of the state government increased at an annual rate of 17 percent, while its revenue expenditure increased at a slightly less annual rate of 16 percent. The sustained phenomenon of revenue surplus had enabled the state government to increase its capital outlay continuously since 2011-12.

The total development expenditure of the state government including capital outlay, stood at Rs 78,077 crore in 2015-16, about 70 percent of the total expenditure, compared to 68 percent in 2014-15. The state government is committed to maintain a high growth rate in development expenditure, both in revenue and capital account; this is also reflected in the budget estimates of 2016-17, where it has been projected to rise to Rs 1,03,859 crore, 30 percent higher than in the previous year. The expenditure on non-developmental general services stood at Rs 27,972 crore in 2015-16, compared to Rs 26,408 crore in 2014-15, implying an increase of only 6 percent. As already indicated, the rise in non-developmental expenditure was due mainly to the increases in pension and interest payments.

The beginning of the reform process in public finances in Bihar had started in 2006-07, when capital outlay was increased substantially to Rs 5211 crore from a meagre Rs 2084 crore in the previous year. The state government has kept this focus on investing in capital assets in every budget since 2006-07, which translated into a higher growth for the state's economy because of its multiplier effect. During the Eleventh Plan period, the GSDP of Bihar at current prices had grown annually at 20.7 percent, compared to the nation's GDP growth rate at 15.6 percent, making the state one of the fastest growing ones in the country. This growth rate was also much higher than that during the Tenth Plan period (12.0 percent). During the last five years, 2011-12 to 2015-16, capital outlay grew annually at 28 percent and the total developmental expenditure grew at 21 percent. The capital outlay of Bihar constituted 5.8 percent of its GSDP in 2015-16, compared to 4.9 percent in 2014-15 and only 3.6 percent in 2011-12. It accounted for 21 percent of total expenditure made by the state government in 2015-16, compared to 19 percent in the previous year. In 2011-12, this share was 15 percent. The state government is aware that there is an urgent need to increase capital expenditure further. Thus, in the budget estimates of 2016-17, capital outlay has been projected to rise by nearly 26 percent, when it would account for 6.4 percent of the state GSDP.

Chart 2.2 : Capital Accounts of Bihar Government (Rs. crore)



### Resource Mobilisation

The total tax revenue of the state government has increased from Rs. 40,547 crore in 2011-12 to Rs 96,123 crore in 2015-16, growing annually at 16 percent. The own tax revenue of the state government grew from Rs 12,612 crore to Rs 25,449 crore during this period, implying a much higher annual growth rate of 19 percent. The growth in own tax revenues has picked up in recent years and, except for 2014-15, the growth has been well above 20 percent during the entire period; in 2012-13, it grew by as much as 29 percent over the previous year. It is expected to rise by a little lower rate of 17 percent to Rs 29,730 crore during the current fiscal. The total tax revenue of the state government also registered an increase of 22 percent in 2015-16 over the previous year. During the five-year period from 2011-12 to 2015-16, the transfers to the state government from the divisible pool of central taxes grew annually at 15 percent, while central grants recorded an annual growth rate of 19 percent.

In contrast to the growth in tax revenue, the receipts under non-tax revenue has been fluctuating. It has actually been on the decline since 2009-10 when it was Rs 1670 crore. Till 2009-10, it was boosted by the debt relief available to the state government from the central government, as recommended by the Twelfth Finance Commission; but it was not available afterwards. In 2014-15, it stood at Rs. 1558 crore, increasing by only a meagre Rs 13 crore over the previous year. However, in 2015-16, it has registered substantial increase by Rs 628 crore mainly on account of higher interest receipts, receipts from non-ferrous mining and metallurgical industries and other non-tax revenues. It was, however, much lower than the projection of Rs 3396 crore in the budget estimates for 2015-16, as the expected transfer from the Government of Jharkhand as Contributions and Recoveries for Pension etc. did not materialize. The Contributions and

Recoveries for Pension etc. was a legacy of the division of the erstwhile composite state of Bihar.

The Own Tax: GSDP ratio in Bihar has been much below than that of other states, although during the five-year period 2011-12 to 2015-16, it had improved from 5.1 percent to 6.2 percent. But, there still remains a large untapped potential for further increasing the state government's own tax revenue. In the budget estimates of 2016-17, state's own tax revenue receipts are estimated to be Rs 29,730 crore, an increase of 17 percent over the level achieved in 2015-16. Of the total revenue to be realized in 2016-17, state's own revenues are projected to constitute nearly 26 percent.

### Outstanding Public Debt

The public debt of the state government comprises only two elements — internal debt raised by the state government from the market (including financial institutions) and the loans taken from the central government. The second component has been falling as a consequence of the recommendations made by the Twelfth Finance Commission. The state government also acts as a trustee in respect of certain items in the public account which constitute the other liabilities discussed later.

The state government had an outstanding public debt of Rs. 50,990 crore in 2011-12, equaling 20.6 percent of its GSDP. In 2015-16, the outstanding debt increased to Rs. 88,829 crore, and the Debt: GSDP ratio increased to 21.5 percent, well below the limit of 25 percent, specified by the Fourteenth Finance Commission. The ratio of interest payment to revenue receipts was at 9.3 percent in 2011-12, which got reduced to 8.5 percent in 2015-16, again well below the upper limit of 10 percent, recommended by the Fourteenth Finance Commission. Thus, both conditions having been satisfied in addition to Bihar being a revenue surplus state for years together, the state government is eligible for an additional half percent fiscal deficit over and above its FRBMA target of 3 percent during the current fiscal; the budget estimates in fact indicates the fiscal deficit as 3.4 percent of new estimate of GSDP (2011-12 series). This also clearly indicates that the debt problem is well under the control of the state government.

The debt servicing payments rose from Rs 7226 crore to Rs 11,223 crore between 2011-12 and 2015-16. The interest payments accounted for Rs 4304 crore (60 percent of debt service payments) in 2011-12 and Rs 7098 crore (63 percent of debt service payments) in 2015-16. The repayment of principal increased from Rs 2922 crore to Rs 4125 crore during the same period. In 2016-17, the outstanding public debt is projected to rise to Rs 1,06,009 crore (22.5 percent of GSDP) and debt servicing payments are expected to rise to Rs 12,253 crore as per the budget estimates.

The structure of debt has undergone a significant change since 2002-03. This occurred first by swapping of the high-cost central government loans with low-cost market loans and then, as a result of the recommendations of the Twelfth Finance Commission, by consolidation and rescheduling of all central government loans for payment over a 20-year period at 7.5 percent rate of interest. The Commission also recommended that, if the state governments want to raise loans, they should get it from the market and the central government's help should be limited to only grants. As a result, the proportion of central government loans diminished substantially since then. During the period 2011-12 to 2013-14, the central loans declined from Rs 827 crore to Rs 550 crore, but increased to Rs 818 crore during 2015-16. The share of central loans, availed only for state's plan schemes, in the total public debt receipts had declined significantly from 12.5 percent to 4.4 percent between 2011-12 and 2015-16.

For the treatment of debt liabilities, a new approach was adopted in 2012-13 when, unlike in the past, the net receipts from Small Savings, Provident Fund and other accounts were included in the total debt liabilities of the state government. However, the new Indian Government Accounting Standard (IGAS) 10 has introduced a distinction between the receipts of debt into the Consolidated Fund and the liabilities that accrue to the state government automatically by virtue of its Public Account. Though the standard has not yet been formally adopted and is not free from contradictions, it has redefined the outstanding liabilities of the state government. Earlier, the total debt of the state government comprised its internal debt, loans from the central government, and loans from small savings and provident fund account. While the first two are part of the borrowings against the Consolidated Fund, the small savings and provident fund account share is maintained in its Public Account. As per the new accounting standard, public debt now comprises the borrowings from the Consolidated Fund only, while the three major public account balances constitute the 'Other Liabilities' of the state government, since they all stand merged into the cash balance of the state government. The 'Other Liabilities' include Provident Fund and Other Accounts, Reserve Funds, and Deposits and Advances. The accounts of the state government are already reflecting this new classification of public debt and other liabilities, and the same classification will be followed in the Economic Surveys from now on. It may be mentioned that public accounts create a lot of distortions in the government financial system and there is a need to deal with it at a structural level.

The Small Saving schemes have always been an important component of household savings in India. Following the Report of the Committee on Small Savings in February 1999, a 'National Small Savings Fund' (NSSF) was established in the Public Account of India with effect from April, 1999. All deposits under small savings schemes are credited to NSSF and all withdrawals by the depositors are made out of accumulations in the Fund. The NSSF invests the net collections of small savings in the Special State Government Securities (SSGS), as per the sharing formula decided by the central government. The loans from NSSF outstanding against

the state government at the end of 2015-16 amounted to Rs 24,932 crore, as against Rs 22,907 crore in 2014-15. During 2015-16, the state government had availed loans against special securities issued to NSSF, amounting to Rs 3307 crore, as compared to Rs. 3945 crore in 2014-15. The Fourteenth Finance Commission recommended to exclude the states from the operations of the NSSF scheme and recommended that the involvement of the state governments in the NSSF scheme may be limited only for the purpose of discharging the debt obligations already incurred by them until that date. To that effect, the Union Finance ministry had asked all state governments to give their opinions on these recommendations. Bihar has preferred to opt out of the NSSF loans.

The year 2006-07, being the year of the enactment of FRBM legislation, also marked the beginning of fiscal discipline in Bihar, as seen in the containment of its Gross Fiscal Deficit (GFD) within the FRBM Act limits of 3 percent of GSDP. The GFD: GSDP ratio of Bihar was brought down to 2.92 percent in 2006-07 from 4.43 percent in the previous year. It was, thereafter, kept well within the 3 percent limit in all the subsequent years, barring 2009-10 when it was just marginally higher at 3.2 percent of GSDP. It necessitated an amendment to the FRBM Act that was reversed the very next year. This was basically a consequence of the economic meltdown in 2008-09. In 2015-16, the ratio of GFD to GSDP stood at 2.9 percent and is estimated to go beyond 3 percent as per budget estimates of 2016-17 (3.4 percent) which, as explained earlier, would still be within the additional limit of 0.5 percent, offered by the Fourteenth Finance Commission recommendations. In absolute terms, the GFD increased from Rs 5915 crore in 2011-12 to Rs 12,062 crore in 2015-16. It is estimated to rise substantially to Rs 16,014 crore as per the budget estimates of 2016-17. Summing up, it can be said that the financial consolidation process in Bihar was on track in 2015-16, which needs to be strengthened further.

## **2.2 Fiscal Performance**

For analyzing the fiscal performance of the state government during three years (2014-15 to 2016-17), the present analysis has used the following 8 indicators — (i) Ratio of Revenue Deficit to GFD, (ii) Ratio of Capital Outlay to GFD, (iii) Ratio of Non-Development Revenue Expenditure to Aggregate Disbursement, (iv) Ratio of Non-Development Revenue Expenditure to Revenue Receipt, (v) Ratio of Interest Payment to Revenue Expenditure, (vi) Ratio of State's Own Revenue to Revenue Expenditure, (vii) Ratio of Gross Transfer from Central Government to Aggregate Disbursement, and (viii) Ratio of Debt Servicing Expenditure to Gross Transfers from Central Government.

- (i) Ratio of Revenue Surplus to GFD : This ratio indicates the extent to which revenue surplus contributes to GFD. Ideally, the revenue account should leave a surplus for the creation of capital assets. As noted already, there were substantial surpluses in the revenue account of

state government for the last three years, enabling it to increase its capital expenditure continuously. The revenue surplus of Bihar constituted 88 percent of GFD in 2015-16, a steep rise from 52 percent in 2014-15. Thanks to the recommendations of the Twelfth Finance Commission, most major states in the country today are revenue surplus states. During the last three years, among 17 major states, other than Bihar, 5 other states (Jharkhand, Odisha, Madhya Pradesh, Gujarat and Karnataka) have consistently maintained reasonable surpluses in their revenue accounts. The remaining states have failed to generate revenue surplus continuously.

- (ii) Ratio of Capital Outlay to GFD : As an obvious consequence of the improvements in its revenue accounts, Bihar has had a high capital outlay during the last three years. In 2014-15, the capital outlay was nearly 1.6 times its GFD; this increased to 1.8 times in 2015-16. In 2016-17, the ratio is expected to increase further to 1.9. Among the major states, those which could register a similar high level of capital outlay are — Jharkhand, Odisha, Uttar Pradesh, Madhya Pradesh, Karnataka, Gujarat and Chhattisgarh.
- (iii) Ratio of Non-Development Revenue Expenditure to Aggregate Disbursements: The non-development expenditure, incurred mainly for administrative or general services, should preferably be a small part of the total expenditure. In Bihar, non-developmental revenue expenditure constituted only 31 percent of the total expenditure in 2015-16. In 2015-16, in five states, this ratio was more than 30 percent — Uttar Pradesh, Punjab, Kerala, Tamil Nadu and Himachal Pradesh. On the other hand, the ratio was below 20 percent in only Chhattisgarh.
- (iv) Ratio of Non-Development Revenue Expenditure to Revenue Receipts : This ratio indicates the extent to which the state government's revenue receipts could not be utilized for developmental purposes. In Bihar, the non-developmental revenue expenditure consumed 33 percent of total revenue receipts in 2014-15 and, in 2015-16, this ratio was brought down to 29 percent. In 2016-17 also, this ratio is projected to remain almost the same. While West Bengal, Punjab and Tamil Nadu had this ratio at higher than 40 percent, Kerala consistently had a very high ratio around 60 percent. The ratio was less than 30 percent for Jharkhand, Odisha, Rajasthan, Andhra Pradesh and Chhattisgarh in 2015-16.
- (v) Ratio of Interest Payment to Revenue Expenditure: Interest payments constitute a perennial burden on governments' finances in most of the states, because of their high indebtedness. For Bihar, however, interest payments have been consuming progressively lesser proportion of the revenue expenditure since 2004-05. In 2014-15, it was 10 percent and it decreased to 8.5 percent in 2015-16, and is expected to come down further to 8.0 percent in the current fiscal. Except Jharkhand, Odisha, Uttar Pradesh, Madhya Pradesh, Karnataka

and Chhattisgarh, all other states had this ratio above 10 percent in 2015-16, the highest being 20 percent for West Bengal.

- (vi) Ratios of State's Own Revenue to Revenue Expenditure : The ratio of the state's own revenue to its total revenue expenditure indicates the self-sufficiency of the state government vis-à-vis its revenue expenditure needs. In 2007-08, own tax and non-tax revenue receipts of Bihar together covered barely 24 percent of its total revenue expenditure. The ratio has improved since then, reaching the peak of nearly 38 percent in 2015-16. But it is still a long way from attaining the desired level of financial self-sufficiency. The position of all other major states is far better on this count. There are ten states whose own revenue meets more than 50 percent of their total revenue expenditure. The level of self-sufficiency was even higher for Maharashtra, Gujarat, Karnataka and Tamil Nadu, who could finance more than two thirds of their total revenue expenditure from their own revenues.
- (vii) Ratio of Gross Transfers from Central Government to Aggregate Disbursements: This ratio brings out the state governments' dependence on central resources. For Bihar, such dependence has always been very high. The central transfers always accounted for more than 60 percent of Bihar's total expenditure. However, from the peak of almost 72 percent in 2007-08, this ratio had decreased to 59 percent in 2015-16. In the budget estimates of 2016-17, however, it is projected to go up to 65 percent. No other major state has had such a high dependence on the central government transfers. Among other major states, only Jharkhand, Odisha, Uttar Pradesh, Madhya Pradesh, Himachal Pradesh and Chhattisgarh had more than 40 percent of their total expenditure financed by the central transfers. Even if only central grants are considered, since states in any case have a statutory right to the share of central taxes, it accounted for about 20 and 17 percent of Bihar's aggregate disbursements in 2014-15 and 2015-16 respectively. This is a more appropriate indicator of state government's dependence on central government.
- (viii) Ratio of Debt Servicing to Gross Transfers from Central Government : Till 2003-04, debt servicing used to consume a very substantial portion of the gross transfers from the central government to Bihar. However, due to the recommendations of the Twelfth Finance Commission and better financial management, this ratio has been successfully brought down from more than 100 percent in 2003-04 to only about 27 percent in 2007-08. It has declined further to 16 percent in 2015-16. As per the budget estimates of 2016-17, it is projected to decline even further to 14 percent. The performance of Bihar in this respect is significantly better than many of the major Indian states. In case of Punjab, Haryana and Andhra Pradesh, the situation was alarming in 2015-16, since this ratio exceeded 100 percent for these three states, indicating that the entire central transfers was not sufficient to discharge their existing debt servicing obligations.



**Table 2.2 : Major Fiscal Indicators**

State	A. Revenue Deficit : GFD (%)			B. Capital Outlay : GFD (%)		
	2014-15	2015-16	2016-17 BE	2014-15	2015-16	2016-17 BE
Bihar	-52.3	-88.2	-91.5	162.4	183.0	188.0
Jharkhand	-80.5	-90.8	-124.2	167.4	168.2	195.1
West Bengal	62.7	37.4	0.0	36.1	61.7	99.1
Odisha	-107.0	-68.8	-25.3	202.1	167.1	115.3
Uttar Pradesh	22.1	-96.3	-56.4	75.9	190.2	143.9
Madhya Pradesh	-55.1	-2.1	-14.1	104.4	82.8	123.4
Rajasthan	16.9	17.4	25.1	84.7	77.6	66.9
Maharashtra	38.1	24.5	10.4	61.3	74.9	88.5
Gujarat	-28.7	-16.5	-13.2	131.8	117.4	114.1
Punjab	41.8	53.8	61.0	57.7	40.8	36.7
Haryana	66.0	35.2	48.9	29.5	21.3	35.1
Karnataka	-2.7	-4.8	-2.0	100.2	101.2	99.9
Andhra Pradesh	66.4	24.3	23.8	31.5	73.9	75.1
Kerala	99.8	99.7	99.5	0.2	0.3	0.3
Tamil Nadu	8.7	12.9	14.5	83.4	74.4	76.4
Himachal Pradesh	59.0	19.4	-146.9	35.0	72.9	219.2
Chhatisgarh	19.4	-57.8	-62.1	82.0	157.4	160.3

State	C. Non-Dev. Exp: Agg. Disbursements (%)			D. Non-Dev. Exp: Revenue Receipts (%)		
	2014-15	2015-16	2016-17 BE	2014-15	2015-16	2016-17 BE
Bihar	32.1	30.5	28.3	33.2	28.6	28.6
Jharkhand	23.1	24.0	22.7	26.7	27.7	25.8
West Bengal	30.4	26.9	27.0	50.1	42.9	39.7
Odisha	23.0	23.0	24.2	26.9	27.2	29.1
Uttar Pradesh	35.7	30.1	29.8	48.2	36.8	36.8
Madhya Pradesh	23.7	24.2	23.2	30.0	30.1	30.8
Rajasthan	23.9	22.0	23.9	30.5	29.5	31.6
Maharashtra	29.5	29.9	31.5	38.0	37.3	38.6
Gujarat	25.1	24.2	26.5	31.9	30.8	34.1
Punjab	30.9	31.9	32.8	50.6	54.7	56.5
Haryana	27.3	20.4	22.7	41.4	35.2	35.5
Karnataka	26.6	25.8	25.1	32.9	31.3	31.4
Andhra Pradesh	20.4	23.7	28.7	29.8	29.8	35.6
Kerala	41.8	39.6	38.6	59.3	59.6	61.6
Tamil Nadu	33.5	32.8	33.1	41.6	41.2	42.3
Himachal Pradesh	24.7	30.5	30.3	46.2	37.6	34.6
Chhatisgarh	21.1	17.7	20.6	26.4	20.3	24.1

State	E. Interest Payments: Revenue Exp (%)			F. State Own Revenue: Revenue Exp. (%)		
	2014-15	2015-16	2016-17 BE	2014-15	2015-16	2016-17 BE
Bihar	9.8	8.5	8.0	30.7	37.6	29.2
Jharkhand	6.9	8.0	9.0	42.5	48.5	52.2
West Bengal	20.9	20.3	20.5	39.6	37.8	41.3
Odisha	5.5	6.4	6.2	54.6	47.4	44.4
Uttar Pradesh	16.3	9.8	10.8	62.6	50.6	49.5
Madhya Pradesh	8.6	7.8	8.3	57.0	45.7	47.3
Rajasthan	11.1	10.7	13.3	54.9	51.4	51.0
Maharashtra	13.5	12.6	12.6	71.9	69.9	73.1
Gujarat	17.2	16.3	15.4	81.8	74.7	74.1
Punjab	17.2	18.8	18.5	63.6	63.0	59.1
Haryana	14.1	13.2	13.9	65.7	62.1	64.5
Karnataka	9.1	9.8	10.1	72.3	69.4	69.2
Andhra Pradesh	10.6	10.7	11.3	47.9	53.2	50.6
Kerala	13.6	13.3	13.4	59.3	59.6	61.6
Tamil Nadu	11.6	11.1	11.9	75.6	69.2	71.4
Himachal Pradesh	12.9	11.7	12.8	36.3	34.1	40.2
Chhatisgarh	4.5	4.2	4.9	52.1	55.0	52.1

State	G. Gross Transfers: Aggregate Disbursements (%)			H. Debt Servicing: Gross Transfers (%)		
	2014-15	2015-16	2016-17 BE	2014-15	2015-16	2016-17 BE
Bihar	60.0	59.4	65.3	18.9	16.2	13.6
Jharkhand	52.9	49.6	48.5	17.6	20.7	20.9
West Bengal	32.9	38.0	40.8	106.9	95.3	86.7
Odisha	44.4	50.2	49.5	23.4	16.7	12.6
Uttar Pradesh	24.9	46.0	45.2	67.8	30.3	27.1
Madhya Pradesh	38.5	45.2	41.8	27.8	22.4	27.6
Rajasthan	34.5	37.5	37.7	38.3	31.3	36.2
Maharashtra	18.0	21.9	21.3	102.2	66.8	72.7
Gujarat	18.4	22.4	22.2	95.5	75.8	78.6
Punjab	19.1	17.4	19.0	189.6	224.6	205.8
Haryana	14.0	15.4	15.5	174.6	118.6	132.3
Karnataka	23.8	27.0	26.0	46.4	39.7	47.2
Andhra Pradesh	29.3	36.4	38.7	62.4	38.1	35.1
Kerala	17.9	21.4	21.5	174.7	158.9	164.5
Tamil Nadu	20.1	24.1	22.0	65.5	53.6	62.6
Himachal Pradesh	29.8	52.8	55.5	111.7	28.7	31.9
Chhatisgarh	36.5	42.5	45.8	17.9	13.6	14.4

Source : State Governments' Budgets

### Sustainability, Flexibility and Vulnerability of State Finances

The preceding analysis can be extended further to identify the factors that make a state government financially healthy, allowing for more development activities. For this, it would be necessary to know whether the means of financing development activities are sustainable, i.e., they meet the increased expenditure needs of the state government without substantially adding to its debt burden. Secondly, it would also be pertinent to examine the flexibility of the means of financing, either by increasing the revenue or by borrowing. Finally, one should also examine whether increased expenditure exposes the government to more risks and makes it vulnerable to the sources of funding. Some of the indicators which measure the sustainability, flexibility and vulnerability of the state government finances are presented in Table 2.3 and they are discussed below.

- (i) Balance of Current Revenue (BCR) : This is calculated as state government's own revenue receipts, plus share of central taxes, plus non-plan grants, minus non-plan revenue expenditure. A positive BCR shows that the state government has surplus funds from its revenues to meet the development expenditure. Bihar has a substantial positive BCR that has been increasing for the last six years. It increased from Rs 9987 crore in 2011-12 to Rs 26,027 crore in 2015-16. This is projected to become Rs 26,984 crore in 2016-17, as per the budget estimate.
- (ii) Interest Ratio : This is calculated as  $(\text{Interest Payment} - \text{Interest Receipt}) / (\text{Total Revenue} - \text{Interest Receipt})$ . A higher ratio indicates a reduced ability of the state government to service any fresh debt and meet its revenue expenditure from its revenue receipts. For Bihar, the ratio has been falling continuously. This ratio was 9.1 percent in 2011-12. As per the budget estimate of 2016-17, it is expected to decrease to 8.6 percent.
- (iii) Capital Outlay/Capital Receipts : This ratio indicates the extent to which capital receipts are utilised for capital formation. A ratio of less than 100 percent would not be sustainable in the long run, as that would indicate that capital receipts are being utilized for revenue expenditure. This ratio was at a healthy level of 220 percent in 2006-07, and 373 percent in 2007-08, but declined to 130 percent in 2015-16. However, the ratio is poised to rise to 142 percent in the current fiscal. Thus, the entire capital receipt of the state government is presently being used for capital outlay, a part of the latter being financed by the surplus in the revenue account.
- (iv) State's Own Tax Receipts/ GSDP : This is an important indicator of the gap between the tax receipts of the state government and tax potential. A low ratio also indicates low tax compliance. For Bihar, the ratio of its own tax receipts to GSDP has stagnated at around

4 percent till 2008-09 and, since then, has grown just above 5 percent in 2011-12. In 2015-16, the ratio improved to 6.2 percent. Since this ratio is much lower compared to other states, there is further scope for tapping the hitherto untapped tax potential of the state. In the current fiscal, it is expected to rise to 6.3 percent.

- (v) Debt Outstanding/ GSDP : This ratio indicates whether the state government has fallen into a debt trap from which it may not be able to come out on its own. A high ratio leaves little room for the state government for financial leverage and indicates a lack of flexibility. It can be noted here that the total debt which constituted 20.6 percent of the GSDP in 2011-12 has increased to 21.5 percent in 2015-16. As this debt burden is clearly sustainable, Bihar is safely positioned on this account.
- (vi) Capital Repayment / Capital Borrowings : This ratio indicates the extent to which the capital borrowings could not be utilized for asset creation. A high ratio indicates that capital receipts are being utilized more for capital repayment, depriving the economy of additional asset creation. For Bihar, this ratio has decreased from 73 percent in 2011-12 to 26 percent in 2015-16. As per the budget estimates, it is projected to decrease further to 22 percent in 2016-17.
- (vii) Primary Deficit : This is the GFD minus interest payments. It measures the impact of the current policies of the state government without considering the liabilities created in the past, for which interest has to be paid now. A necessary condition for long term sustainability of debt is that the primary account should not be in deficit. In 2008-09, Bihar had a primary surplus of Rs 1246 crore, but since then, except in 2010-11 when there was a modest primary surplus of Rs 349 crore, Bihar could not generate any surplus in its primary account. In 2015-16, it had a primary deficit of Rs 4964 crore (1.2 percent of GSDP) which is estimated to increase further to Rs 7835 crore (1.7 percent of GSDP) in 2016-17. This remains a matter of concern.
- (viii) Buoyancy of State's Tax and Non-Tax Revenues : The buoyancy of own tax receipts of the state government shows considerable variation, but it has generally remained buoyant in recent years, except in 2014-15. In case of non-tax revenue, the variations were even wider. There was a negative buoyancy in non-tax revenues in 2010-11 due to the withdrawal of debt relief as available under the period covered by the Twelfth Finance Commission. In 2011-12, this buoyancy was again negative due to the recovery of a part of debt relief that was given to the state government in 2011-12, amounting to Rs 384 crore. Such wide variation in the buoyancy for non-tax revenue is primarily because some one-time transfers from the central government are treated as non-tax revenue.

**Table 2.3 : Fiscal and Financial Performance Indicators**

Indicators	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>A. Sustainability</b>						
Balance from Current Revenue (Rs. crore)	9987	14128	16242	15484	26027	26984
Interest Ratio (%)	9.13	8.67	9.26	9.82	8.57	8.67
Buoyancy of Own Tax Receipts w.r.t. GSDP	1.3	2.0	1.9	0.2	2.1	1.2
Buoyancy of Non-Tax Receipts w.r.t. GSDP	-0.5	1.9	2.9	0.0	3.8	0.6
Growth in outstanding debt (%)	7.8	12.7	11.8	16.0	19.1	19.3
Growth in total revenue receipts (%)	15.2	16.1	15.7	13.8	22.6	29.6
Growth in state's own revenue receipts (%)	24.4	28.8	23.7	3.7	23.9	16.1
Growth in GSDP (%)	21.4	14.3	12.3	17.9	10.6	14.0
<b>B. Flexibility</b>						
Capital Repayment / Capital Borrowings (%)	72.9	54.0	39.6	28.6	25.8	21.9
Total Tax Receipts / GSDP (%)	16.4	17.1	17.3	15.4	18.0	18.7
Capital Outlay / Capital Receipts (%)	133.1	100.1	141.1	117.8	130.2	141.5
State's Own Tax Receipts / GSDP (%)	5.1	5.8	6.3	5.5	6.2	6.3
State's Own Non-Tax Receipts / GSDP(%)	0.4	0.4	0.5	0.4	0.5	0.5
Debt Outstanding / GSDP (%)	20.63	20.35	20.27	19.94	21.48	22.49
<b>C. Vulnerability</b>						
Revenue Deficit (Rs. crore)	-4820	-5101	-6441	-5847	-12507	-14649
Fiscal Deficit (Rs. crore)	5915	6545	8352	11179	12062	16014
Primary Deficit (Rs. crore)	1611	2117	2893	5050	4964	7835
Primary Deficit / Fiscal Deficit (%)	27.2	32.3	34.6	45.2	41.2	48.9
Revenue Deficit / Fiscal Deficit (%)	-81.5	-77.9	-77.1	-52.3	-103.7	-91.5

With a better debt management, the state government has gained increased flexibility and was in a better position to direct its resources for development expenditure. In terms of vulnerability, however, the state government still remains overwhelmingly dependent on the central transfers for meeting its own expenditure needs. This dependence can be lessened as there still remains untapped potential for increasing its own tax revenues. Summing up, it is noted that while the key fiscal indicators point to improvements in the fiscal position of the state government over the recent years, there still remain some concerns like low Own Tax : GSDP ratio and deficit in the primary account.

### 2.3 Deficit Management

The position in the revenue account as well as the combined position of the revenue and capital accounts of the major Indian states for the years 2014-15 to 2016-17 (BE) are presented in Table

2.4. Bihar attained its highest surplus of Rs 12,507 crore in the revenue account in 2015-16, recovering from the economic downturn which had caused a decline in its revenue surplus after 2010-11. This satisfactory position in terms of revenue surplus in 2015-16 is expected to improve substantially in the current fiscal, with expected revenue surplus of Rs 14,649 crore.

**Table 2.4 : Deficit/Surplus position of States**

(Rs. crore)

State	Revenue Deficit (+)/ Surplus(-)			Conventional Deficit (+)/ Surplus(-)		
	2014-15	2015-16	2016-17 BE	2014-15	2015-16	2016-17 BE
Bihar	-5848	-12507	-14649	870	-229	-1166
Jharkhand	-3956	-4684	-6995	0	0	0
West Bengal	17137	9673	0	3833	-1044	-7728
Odisha	-5862	-6829	-3683	1944	1674	1071
Uttar Pradesh	9566	-31966	-28201	36555	-23229	6814
Madhya Pradesh	-6268	-437	-3510	1502	3544	739
Rajasthan	3215	5232	8802	6133	12490	15866
Maharashtra	12138	9290	3644	11281	10383	1739
Gujarat	-5326	-3657	-3236	4374	3520	3656
Punjab	4253	6394	7983	1644	1229	792
Haryana	8319	10693	12280	1955	35	67
Karnataka	-528	-999	-522	2514	3116	1462
Andhra Pradesh	13779	4140	4868	8355	856	1039
Kerala	13796	10814	9897	13796	10814	15964
Tamil Nadu	1788	3537	4616	746	1748	2816
Himachal Pradesh	4265	780	-2172	3961	1755	-1377
Chhatisgarh	1564	-3948	-5037	2976	584	587

Source : State Governments' Budgets

The GFD of a state government is a sensitive indicator of its financial performance, as it reflects the total resource gap. Table 2.5 presents the GFD of the major states in India. Four states (Rajasthan, Maharashtra, Uttar Pradesh and Haryana) have GFD exceeding Rs 30,000 crore in 2015-16. Other high deficit states are West Bengal, Tamil Nadu, Karnataka, Gujarat and Madhya Pradesh. Most states showed a conventional deficit in their budget, necessitating borrowings during 2015-16. As noted earlier, Bihar's GFD had sharply increased in last three years, due to higher capital investments. As a percentage of GSDP, however, the GFD has remained below 3 percent of the GSDP (2004-05 series), as mandated by the FRBM Act, during all these three years.

**Table 2.5 : Gross Fiscal Deficit**

State	Gross Fiscal Deficit (Rs. crore)			State	Gross Fiscal Deficit (Rs. crore)		
	2014-15	2015-16	2016-17 BE		2014-15	2015-16	2016-17 BE
Bihar	11178	12062	16014	Punjab	10176	11895	13087
Jharkhand	4914	5157	5633	Haryana	12605	30413	25138
West Bengal	27345	25834	19355	Karnataka	19587	20892	25732
Odisha	5479	9932	14532	Andhra Pradesh	20736	17005	20497
Uttar Pradesh	43288	33209	49961	Kerala	13824	10845	9942
Madhya Pradesh	11379	21167	24914	Tamil Nadu	20583	27346	31829
Rajasthan	19014	30096	35024	Himachal Pradesh	7228	4022	1478
Maharashtra	31827	37949	35031	Chhatisgarh	8078	6832	8111
Gujarat	18561	22177	24545				

Source : State Governments' Budgets

Table 2.6 shows the decomposition of the GFD of the state government, from which one can find that revenue surplus has been financing almost half its capital outlay. This has allowed the state government to increase the capital outlay substantially, which accounted for its increased share in GFD, as it rightly should. This was true throughout the period from 2011-12 to 2015-16, and more so during the recent years. The fact that the capital outlay now accounts for almost the entire GFD, after exhausting the revenue surplus, indicates that it is now being utilised for building the much-needed social and physical infrastructure in Bihar. Net lending has always constituted a small part of the GFD of the state government. The capital outlay has increased in Bihar at an annual rate of 22 percent during the last six years.

**Table 2.6 : Decomposition of Gross Fiscal Deficit of Bihar**

(Rs. crore)

Amount	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Revenue Deficit	-4820	-5101	-6441	-5847	-12507	-14649
Capital Outlay	8852	9585	14001	18150	23966	30107
Net Lending	1884	2061	792	-1124	603	557
GFD	<b>5915</b>	<b>6545</b>	<b>8352</b>	<b>11179</b>	<b>12062</b>	<b>16014</b>
GSDP	247144	282368	317101	373920	413503	471391
GFD: GSDP ratio (%)	<b>2.4</b>	<b>2.3</b>	<b>2.6</b>	<b>3.0</b>	<b>2.9</b>	<b>3.4</b>

Source : State Government Budgets

Chart 2.3 : GFD : GSDP Ratio (Percentage)

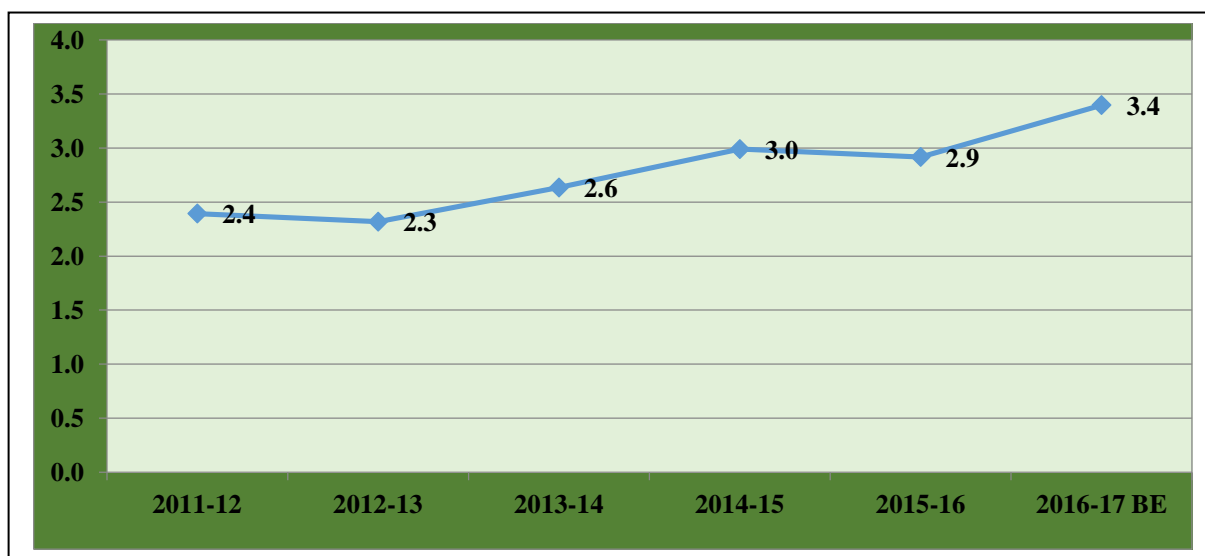


Chart 2.4 : Decomposition of GFD (Rs. crore)

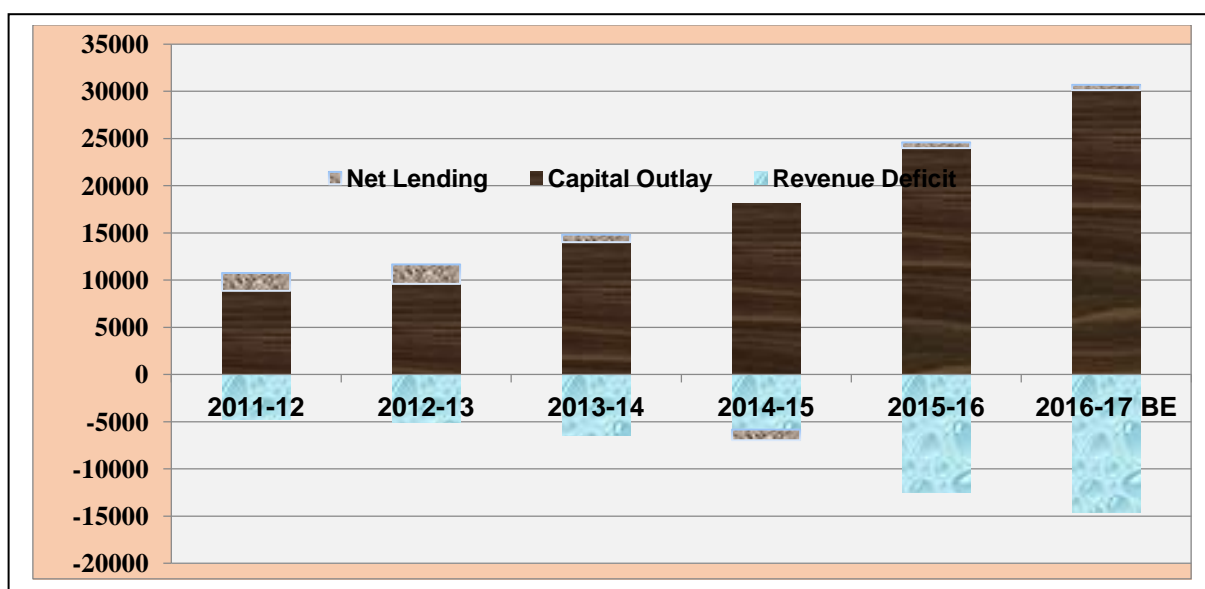


Table 2.7 shows how the GFD was financed during the recent years. The net borrowing consisted of mainly internal market borrowings, the central loans being a very small portion of the total borrowing. In 2015-16, the net borrowings were much in excess of the state's GFD requirements by as much as 18 percent, which went to increase the cash balance of the state government by Rs 214 crore. The cash balance further increased due to the net balance available from public account of which it is a part. This is the kind of distortion that happens where the state government borrows at a higher rate from the market to increase the cash balance which earns a lesser rate of interest from investment in the treasury bills. This distortion happens only because of the way the public account is structured, where availability rather than need becomes the reason for the state's over-borrowing.



**Table 2.7 : Financing of Gross Fiscal Deficit**

(Rs crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Net Borrowing	3706	6484	6788	10309	14258	17181
Net Public Account	2469	343	1606	551	-1983	-1235
Net Decrease in Cash Balance (Opening - Closing Balance)	-333	-281	-42	319	-214	-69
GFD	5915	6545	8352	11179	12062	16014
Percentage Composition						
Net Borrowing	62.6	99.1	81.3	92.2	118.2	107.3
Net Public Account	41.7	5.2	19.2	4.9	-16.4	-7.7
Net Decrease in Cash Balance	-5.6	-4.3	-0.5	2.9	-1.8	-0.4

Source : State Government Budgets

### Cash Management

As of March 31, 2016, the state government had a cash balance of Rs 11,717 crore, compared to Rs 6337 crore on March 31, 2015. Out of this, Rs 8199 crore were invested in Cash Balance investment account, Rs 216 crore as cash with departmental officers, Rs 342 crore as permanent advances for contingent expenditure with various departments, and Rs 2834 crore were invested in earmarked funds like the Sinking Fund, leaving a net credit cash balance of Rs 125 crore with the RBI. An amount of Rs 453 crore was realised as interest on the state government's investments during 2015-16, compared to Rs 312 crore during the preceding year.

### Guarantees by State Government

The outstanding guarantees of the state government at the end of 2015-16 stood at Rs 4721 crore (4.9 percent of total revenue receipts), compared to Rs 2001 crore at the end of 2014-15. Out of this, Rs 3497 crore were against the loans to the Power Sector, mainly the Bihar State Electricity Board (BSEB), Rs 43 crore against the Bihar State Road Transport Corporation, and Rs 127 crore against the Bihar State Financial Corporation. Further, Credit Cooperative Societies and Housing Cooperatives accounted for Rs. 456 crore. The outstanding guarantees remained nearly the same during the last two years, with the interest on outstanding guarantees amounting to Rs 118 crore. Only Rs 63 lakh had been received during the year as guarantee commission from the Bihar State Food and Civil Supplies Corporation.

## 2.4 Debt Management

Table 2.8 shows the outstanding debt liabilities of the state government (excluding guarantees) from 2011-12 to 2015-16. The outstanding liability as a percentage of GSDP had increased marginally from 27 to 28 percent during the period.

**Table 2.8 : Outstanding Liabilities**

(Rs crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Public Debt						
Internal Debt	42365	48826	55624	65848	79990	96020
Central Loans	8626	8649	8638	8722	8838	9989
Total	50990	57474	64262	74570	88829	106009
Other Liabilities						
Small Savings, PF etc.	9561	9346	9048	8865	8791	8509
Reserve Funds	1543	1819	2081	1836	1435	1435
Deposits and Advances	5718	7865	11549	13785	17523	16420
Total	16822	19029	22678	24486	27749	26364
Total (Public Debt + Other Liabilities)	67812	76504	86940	99056	116578	132374
Outstanding Liability as % of GSDP	27.4	27.1	27.4	26.5	28.2	28.1

Source : State Government Budgets

The total outstanding liabilities of the state government, as can be seen from Table 2.8, had accumulated to Rs. 1,16,578 crore at the end of 2015-16, of which the public debt liability on account of borrowings on the Consolidated Fund accounts for 76 percent. This figure is the accumulated effect of past borrowings, growing at an annual rate of 12 percent since 2011-12. The liability on account of public debt has also been growing at an annual rate of 15 percent since 2011-12. Table 2.8 also shows that 90 percent of this outstanding public debt is due to the internal loans raised by the state government, remaining 10 percent being loans from the central government. The composition of outstanding debt has undergone a structural change over the years, with the share of central loans decreasing gradually, because of the recommendations of the Twelfth Finance Commission. In the coming years, the central government loans will probably no longer be a part of the loan portfolio of the state government.

Liability from Public Account constitutes a significant part of the total liability of the state government, though it is not a debt in the strict sense of the term. But the resources are indeed used by the state government, and there is a liability to pay back the outstanding balances in

these accounts, which form a part of the cash balance of the state. It may be noted that some of these liabilities under the Reserve Funds and Deposits and Advances will be non-interest bearing, since the state government only holds these funds in trust. The National Small Savings Fund (NSSF) contributes significantly to the internal borrowings of the state government. During 2015-16, the state government had raised Rs 17,565 crore (Rs 13,199 crore in 2014-15) through internal borrowings, of which Rs 3307 crore came from NSSF, Rs 11,500 crore were raised from the market, Rs 1555 crore raised through Bihar Special Bond under UDAY and Rs 1204 crore were borrowed from financial institutions. The state government did not avail any ways and means advances from the RBI during 2015-16. The central loans borrowed for state plan schemes amounted to Rs 818 crore.

The composition of outstanding liabilities in the Consolidated Fund of the state government as on March 31, 2016 is shown in Table 2.9. It is seen from the table that NSSF accounts for 31 percent and market loans 60 percent of the total outstanding internal debt of the state government. The outstanding central loans are almost entirely on account of loans for state plan schemes.

**Table 2.9 : Composition of Outstanding Liabilities in the Consolidated Fund**

Nature of Borrowings	Raised during the year		Outstanding Balance		Percentage Increase over 2016 from 2015	Percentage Composition of outstanding balance as on 31.03.16
	2014-15 (Rs crore)	2015-16 (Rs crore)	As on 31.03.2015 (Rs crore)	As on 31.03.2016 (Rs crore)		
<b>A. Internal Debt, of which</b>	<b>13,199</b>	<b>17,566</b>	<b>65848</b>	<b>79990</b>	<b>21.5</b>	<b>90.1</b>
Market Loans	8,100	11,500	37951	48184	27.0	54.2
WMA from the RBI	0	0	0	0	-	0.0
Bonds	0	1,555	226	1573	594.9	1.8
Loans from Financial Institutions	1,154	1,204	4756	5294	11.3	6.0
Special Securities Issued to NSSF	3,945	3,307	22907	24932	8.8	28.1
Others	0	0	7	7	0.0	0.0
<b>B. Loans and Advances from Central Government, of which</b>	<b>718</b>	<b>818</b>	<b>8722</b>	<b>8838</b>	<b>1.3</b>	<b>9.9</b>
Non plan loans	0	0	56	53	-5.3	0.1
Loans for Central Plan Schemes	718	818	1	1	0.0	0.0
Loans for State Plan Schemes	0	0	8618	8737	1.4	9.8
Loans for Centrally Sponsored Plan Schemes	0	0	1	1	0.0	0.0
Other Loans	0	0	47	47	0.0	0.1
<b>Total (A+B)</b>	<b>13,917</b>	<b>18,384</b>	<b>74570</b>	<b>88829</b>	<b>19.1</b>	<b>100.0</b>

Source : Finance Accounts, GOB

Table 2.10 shows the repayment liabilities of the state government. In 2015-16, the total repayment of principal by the state government amounted to Rs. 5402 crore, while the interest payment was higher at Rs 7098 crore. The annual interest burden has increased by Rs 2794 crore over the past five years, due to substantial past borrowings. The total annual debt service burden has increased from Rs. 8260 crore in 2011-12 to Rs. 12,500 crore in 2015-16, growing at an annual rate of 11 percent. In the budget estimates for 2016-17, it is expected to increase by nearly 11 percent to Rs 13,871 crore.

**Table 2.10 : Public Debt Repayment Liabilities**

(Rs. crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Discharge of internal debt	2457	2585	2559	2975	3423	3269
Repayment of loans to Centre	465	485	561	634	702	805
Discharge of other liabilities	1034	1512	1370	1287	1277	1618
Total Repayment	3956	4582	4490	4895	5402	5692
Total Interest Payment	4304	4428	5459	6129	7098	8179
Total Debt Service Burden	<b>8260</b>	<b>9010</b>	<b>9949</b>	<b>11024</b>	<b>12500</b>	<b>13871</b>

Note : Liabilities include receipts and payments of Small Saving and Provident Fund under Public Accounts of the Government of Bihar.

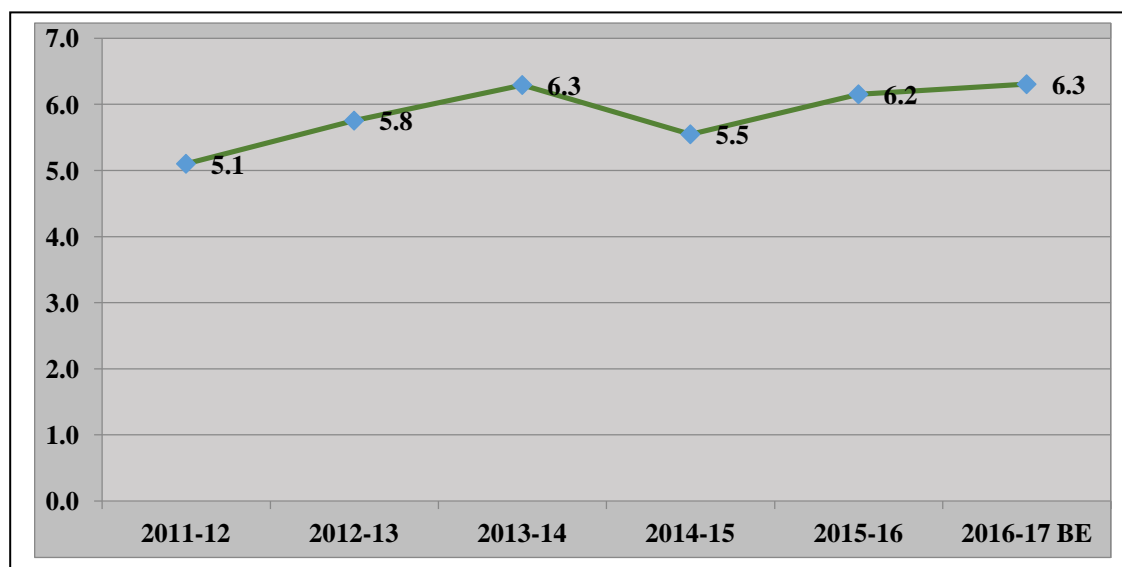
Public debt can be a powerful agent of economic growth, if it is utilised for the creation of productive assets. As can be seen from Table 2.11, the debt resources could not be utilised much by the state government for creating productive assets till 2011-12, when they were mostly used to discharge the existing debt obligations. Since then, however, there has been a steady increase in net accrual to the state exchequer out of the total borrowing. In 2015-16, out of the total borrowed amount of Rs. 18,383 crore, Rs 4125 crore were used for repayment of the principal amounts of the existing public debt, and Rs. 7098 crore for payment of interest. Taking into account the nominal receipts on account of recoveries of loans and advances given by the state government as well as interest receipts on such loans, it resulted in a net inflow of Rs 7763 crore as resources for the state government, which was 42 percent of the net debt received. In 2014-15, this was Rs 6013 crore or 43 percent of the total borrowings. As per the budget estimates of 2016-17, this situation is likely to be improved further and the state government should be in a position to utilize Rs 9385 crore for its own developmental requirements, equivalent to 44 percent of its net borrowings. Though the overall situation has now improved vastly, it still implies that there is further scope for expanding the space available to the state government for fiscal maneuverability.

**Table 2.11 : Net Public Debt Received**

(Rs. crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Gross Central Loans Received	827	508	550	718	818	1956
Internal Debt Recd	5801	9046	9357	13199	17565	19299
<b>Total Public Debt Received</b>	<b>6628</b>	<b>9554</b>	<b>9907</b>	<b>13918</b>	<b>18383</b>	<b>21255</b>
Recoveries of Loans and Advances	23	25	15	1493	19	17
Interest payments	4304	4428	5459	6129	7098	8179
Interest Received	574	167	269	345	584	366
Repayment of Debt	2922	3070	3120	3609	4125	4074
<b>Net Public Debt Received</b>	<b>-2</b>	<b>2248</b>	<b>1613</b>	<b>6018</b>	<b>7763</b>	<b>9385</b>
<b>Net Debt Received as percentage of total borrowing</b>	<b>0.0</b>	<b>23.5</b>	<b>16.3</b>	<b>43.2</b>	<b>42.2</b>	<b>44.2</b>

Source : State Government Budgets

**Chart 2.5 : State Own Tax : GSDP Ratio (Percentage)**

## 2.5 Tax : GSDP Ratio

Table 2.12 shows a comparison among different states with respect to their Tax : GSDP ratios in 2014-15. It is seen that, for Bihar, this ratio at only 5.5 percent was very low, higher than in only Jharkhand and West Bengal. There were four states (Uttar Pradesh, Madhya Pradesh, Punjab and Karnataka) with their Tax : GSDP ratios above 7 percent, while eight more states had the ratio between 6 and 7 percent. Bihar's Own Tax: GSDP ratio of only 5.5 percent indicates that its tax potential remains largely untapped. If its own tax: GSDP ratio improves, the ratio between its total revenue and GSDP that currently stands at only 21 percent (2014-15) would also improve

automatically. As regards the total Revenue: GSDP ratio, which includes the central transfers and grants, Bihar records the highest ratio of 21.0 percent, followed closely by Andhra Pradesh (20.5 percent) and Jharkhand (20.0 percent).

**Table 2.12 : Tax : GSDP Ratio of States (2014-15)**

State	Revenue Receipts (Rs. crore)	State's Own Tax (Rs. crore)	GSDP (Rs. crore)	State's Own Tax: Revenue Receipts	State's Own Tax: GSDP	Total Revenue: GSDP
Bihar	78418	20751	373920	26.5	5.5	21.0
Jharkhand	43444	11813	217107	27.2	5.4	20.0
West Bengal	86514	39412	800868	45.6	4.9	10.8
Odisha	56998	19828	309807	34.8	6.4	18.4
Uttar Pradesh	148581	75975	1043371	51.1	7.3	14.2
Madhya Pradesh	88641	36567	484538	41.3	7.5	18.3
Rajasthan	91327	38673	612194	42.3	6.3	14.9
Maharashtra	165415	115064	1792122	69.6	6.4	9.2
Gujarat	91978	61340	895927	66.7	6.8	10.3
Punjab	44894	28480	368011	63.4	7.7	12.2
Haryana	40799	27635	441864	67.7	6.3	9.2
Karnataka	104142	70180	920061	67.4	7.6	11.3
Andhra Pradesh	109300	29857	532922	27.3	5.6	20.5
Kerala	57950	35233	526774	60.8	6.7	11.0
Tamil Nadu	108036	73718	1092564	68.2	6.7	9.9
Himachal Pradesh	17843	5940	104369	33.3	5.7	17.1
Chhatisgarh	37933	15707	236318	41.4	6.6	16.1

Source : State Governments' Budgets

## 2.6 Revenue Account: Receipt and Expenditure

The summary of revenue receipts and expenditure of the state government is shown in Table 2.13. During 2011-12 to 2015-16, the revenue receipts grew at an annual rate of 17 percent, while revenue expenditure grew at a lower rate of 16 percent. Thus, there was an increasing revenue surplus over the five years. The total revenue receipts increased 1.87 times during the five-year period from Rs. 51,320 crore (2011-12) to Rs. 96,123 crore (2015-16). Simultaneously, its own revenue, tax and non-tax combined, have grown at a faster rate of 20 percent during this period, increasing from Rs. 13,502 crore (2011-12) to Rs. 27,635 crore (2015-16). In the budget estimates of 2016-17, both the revenue receipts and revenue expenditure are projected to increase

steeply, leading to a higher surplus of Rs 14,469 crore. The state government's own revenue met only 29 percent of its revenue expenditure in 2011-12, but it increased to 33 percent in 2015-16.

**Table 2.13 : Revenue Account**

(Rs. crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Revenue Receipt	51320	59567	68919	78417	96123	124590
Revenue Expenditure	46500	54466	62477	72570	83616	109941
Revenue Surplus	-4820	-5101	-6441	-5847	-12507	-14649
State's own tax + non-tax revenue	13502	17388	21505	22308	27635	32088
State's own revenue as % of total revenue	26.3	29.2	31.2	28.4	28.7	25.8
State's share of Central tax as % of total revenue	54.4	53.6	50.5	47.1	50.9	46.8
Central Grants as % of its total revenue	19.3	17.3	18.3	24.4	20.4	27.4
State's own revenue as % of revenue expenditure	29.0	31.9	34.4	30.7	33.0	29.2

Source : State Government Budgets

In Table 2.13, some more parameters of the state finances have been presented, comparing its own tax and non-tax revenues with its total tax and non-tax revenues. The tax revenues of the state government consist of its own revenues as well as its share from the divisible pool of central taxes. The share of state government's own tax revenue in total tax revenue, which was stagnating at about 20 percent earlier, had started increasing from 2011-12 onwards and stood at 29 percent in 2015-16. It has financed about 30-35 percent of its total revenue expenditure during those years. As such, the state government still remains overwhelmingly dependent on the central resources. About 50 percent of the total revenues of Bihar still came from the divisible pool of central taxes during all these years. The central grants accounted for the remaining part of total revenue. From 2013-14, the practice of direct transfers by the central government to implementing agencies in respect of Centrally Sponsored Schemes has been significantly reduced and such transfers are now routed through the state budget. In consequence, share of central grants in total revenues of the state government increased since 2014-15.

Table 2.14 shows the break-up of the total expenditure of the state government between developmental and non-developmental purposes, as well as between plan and non-plan expenditures. The plan expenditure is mostly developmental, while non-plan expenditure may be either developmental or non-developmental. In the absence of any rationale for the classification of expenditure between plan and non-plan, the distinction was ambiguous and this has now been abolished. Consequently, there is not much significance in analyzing the expenditure in terms of plan and non-plan heads. The share of development expenditure, on revenue and capital accounts

combined, in the total expenditure of the state government had increased substantially from less than 50 percent in 2005-06 to 65 percent in 2011-12 and further to 70 percent in 2015-16. In absolute terms, the development expenditure has almost doubled during the five years, 2011-12 to 2015-16, indicating its remarkable growth.

**Table 2.14 : Expenditure Pattern**

(Rs crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Non-Developmental Expenditure	20854	21924	25714	30405	34251	40917
Developmental Expenditure	39328	47282	54691	64293	78077	103779
<b>Total Expenditure</b>	<b>60182</b>	<b>69207</b>	<b>80405</b>	<b>94698</b>	<b>112328</b>	<b>144696</b>
<b>Development Expenditure as % of Total Expenditure</b>	<b>65.4</b>	<b>68.3</b>	<b>68.0</b>	<b>67.9</b>	<b>69.5</b>	<b>71.7</b>
Plan Expenditure	23008	28381	33678	43939	53732	72419
Non Plan Expenditure	37174	40825	46728	50759	58596	72277
<b>Plan Expenditure as % of Total Expenditure</b>	<b>38.2</b>	<b>41.0</b>	<b>41.9</b>	<b>46.4</b>	<b>47.8</b>	<b>50.0</b>
Interest Payments	4304	4428	5459	6129	7098	8179

Source : State Government Budgets

As regards the crucial element of interest payment, it is seen from Table 2.15 that the difference between the gross and net interest payments is only marginal, due to the poor recovery of interest on the loans and advances given by the state government to its mostly loss-making public sector enterprises and autonomous bodies. For most of these public enterprises, their accumulated losses have wiped out their equity bases several times over. As already emphasised before, Table 2.16 indicates that the capital outlay has substantially increased from Rs. 8852 crore in 2011-12 to Rs. 23,966 crore in 2015-16, drawing from the substantial surplus in the revenue account and reinforcing the state government's commitment to development. In the budget estimates of 2016-17, it is projected to rise further to Rs. 30,107 crore.

**Table 2.15 : Interest Payment and Receipt**

(Rs. crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Gross Interest Payment	4304	4428	5459	6129	7098	8179
Net Interest Payment	3730	4261	5190	5784	6514	7813

Source : State Government Budgets



**Table 2.16 : Revenue vis-à-vis Capital Outlay**

(Rs. crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Total Tax Revenue	40547	48153	54790	57713	74372	88090
Own Tax Revenue	12612	16253	19961	20750	25449	29730
Own Non-tax Revenue	890	1135	1545	1558	2186	2358
Own Tax + Non-tax Revenue	13502	17388	21505	22308	27635	32088
Capital Outlay	8852	9585	14001	18150	23966	30107
<b>Capital Outlay as % of Total Expenditure</b>	<b>14.7</b>	<b>13.9</b>	<b>17.4</b>	<b>19.2</b>	<b>21.3</b>	<b>20.8</b>

Source : State Government Budgets

The extent of the state government's dependence on central resources can be seen from Table 2.17, showing the gross transfer of resources to Bihar during 2011-12 to 2015-16. The gross transfer of resources includes the state government's share in central taxes, grants-in-aid from the central government, as well as central loans. The net transfer of resources from the central to state government constituted 61 percent of its total expenditure in 2015-16; in 2011-12, such transfers had met 63 percent of the total expenditure. In 2016-17, this share is estimated at 65 percent. As already noted, the contribution of state government's own resources to total expenditure increased from 22 percent to 25 percent during 2010-11 to 2015-16, the rest being covered by central transfers and borrowings. In addition, in 2015-16, 44 percent of the total disbursements were met from its share of central taxes and 17 percent from the central grants, with the share of loans from the central government being 7 percent. The rest had to be raised from the market as loans.

**Table 2.17 : Transfer of Resources from Central Government**

(Rs crore)

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Aggregate Disbursements	60182	69207	80405	94698	112328	144696
Share in Central Tax	27935	31900	34829	36963	48923	58360
Grants-in-Aid from Centre	9883	10278	12584	19146	19566	34142
Gross Loans from Centre	827	508	550	718	818	1956
Gross transfer of Resources	38645	42686	47963	56828	69306	94457
Net Loans from Centre	361	23	-11	85	116	1151
Net Transfer of Resources	38179	42202	47402	56194	68604	93652
Own Tax + Non-tax Revenue	13502	17388	21505	22308	27635	32088

Source : State Government Budgets

## 2.7 Resource Management

The revenue receipts of the state government come from both tax and non-tax sources. The tax revenue consists of its own tax revenues and its share in the divisible pool of taxes and duties of the central government. Similarly, the non-tax revenues consist of the state government's own non-tax revenue, as well as central grants for plan and non-plan purposes. The own tax revenues of the state government include taxes on property and capital transactions, taxes on commodities and services, and taxes on agricultural income, the second component being by far the most important source. The non-tax revenues of the state government are collected under general, social and economic services. These include interest receipts from loans and advances to various government companies, public sector and quasi-commercial undertakings and other bodies, dividends and profit from them, interest earned on the investment of cash balances of the state government, and receipts from various services classified under general, social and economic services. Economic services contribute more significantly to the non-tax revenues than the other services.

The share of central taxes consists mainly of the shares of income tax, union excise duty, customs duty, service tax and wealth tax, which are collected by the central government, but the proceeds of which are shared with the state governments, under recommendations of the Finance Commissions, constituted every five years. The distinction between plan and non-plan expenditure having been removed with effect from the current fiscal, grants from the central government which hitherto were separately given for plan and non-plan purposes will now be mostly at the discretion of the state government to spend on its own priority areas. Further, the direct transfer of funds to the state implementing agencies related to the grants for the centrally sponsored schemes now being a thing of the past, the state government has more flexibility and maneuverability to use the central grants. Coupled with the additional devolution awarded by the Fourteenth Finance Commission, these institutional changes have substantially augmented the resources available with and under the control of the state government.

Table 2.18 shows the revenue receipts of the state government from 2011-12 to 2016-17. From this table, it can be seen that, during all these years, more than 70 percent of the total revenue receipts of the state government came from the central government by way of state's share of divisible pool of central taxes and grants-in-aid. In 2011-12, this constituted as much as 74 percent of total revenue of the state government, which marginally decreased to 71 percent in 2015-16. Of this 71 percent, 51 percent was state's share of central taxes and 20 percent was central grants. The own resources of the state government contributed only 29 percent of total revenue, 27 percent from tax revenues and only 2 percent from non-tax revenues.

The state government's own tax revenues have grown from Rs. 12,612 crore in 2011-12 to Rs. 25,449 crore in 2015-16, while the non-tax revenues have grown from Rs. 890 crore to Rs. 2186 crore during the same period. However, it should be remembered that the non-tax revenue includes some special transfers. In 2012-13, the non-tax revenue increased by Rs 151 crore due

to receipts pertaining to 'Contributions and Recoveries from Pension etc.', as transfer from the Government of Jharkhand. This transfer was on account of the reimbursement of pension dues pertaining to the period prior to division of the erstwhile composite state of Bihar. In 2013-14 again, the non-tax revenue increased by Rs 400 crore on this account. There was no recovery on this account in 2015-16, hence non-tax revenue could not register any growth. In that year, non-tax revenue increased substantially due to higher receipts from interest (Rs 239 crore) and non-ferrous mining and metallurgical industries (Rs 103 crore).

The total revenue of the state government increased from Rs. 51,320 crore in 2011-12 to Rs 96,123 crore in 2015-16, growing annually at 17 percent. Compared to this, state government's own revenue receipts increased during the period at a higher annual rate of almost 20 percent and its tax revenues also grew at a slightly higher annual rate of above 19 percent. During this period, the grants from the central government also increased annually at a rate of 19 percent, though there has been very little increase in this during 2015-16. However, as already mentioned, consequent upon the significant reduction in direct transfers of grants by the central government to the state implementing agencies in respect of the centrally sponsored schemes from the last fiscal, most of these grants are now being routed through the state government budget. This change has significantly increased the volume of central grants received by the state government. In 2014-15, such grants jumped to Rs. 19,146 crore, from Rs 12,584 crore during 2013-14; and it remained nearly at that level even during 2015-16 (Rs 19,566 crore). Due to the higher growth of state government's own revenues compared to the growth of other components of state government revenues, the share of the state government's own revenue in total revenues has also increased from 26 percent in 2011-12 to 29 percent in 2015-16. This share, however, is expected to decrease again to 26 percent in 2016-17. The state will need more time to improve its own contribution substantially.

**Table 2.18 : Revenue Receipts**

(Rs. crore)

Sources of Revenue	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>I. State's Own Revenue</b>	<b>13502</b>	<b>17388</b>	<b>21505</b>	<b>22308</b>	<b>27635</b>	<b>32088</b>
a) Tax Revenue	12612	16253	19961	20750	25449	29730
b) Non-Tax Revenue	890	1135	1545	1558	2186	2358
<b>II. Receipts from Centre</b>	<b>37818</b>	<b>42178</b>	<b>47413</b>	<b>56109</b>	<b>68488</b>	<b>92502</b>
a) Share of Divisible Taxes	27935	31900	34829	36963	48923	58360
b) Grants-in-aid	9883	10278	12584	19146	19566	34142
<b>III. Total Revenue Receipts</b>	<b>51320</b>	<b>59567</b>	<b>68919</b>	<b>78418</b>	<b>96123</b>	<b>124590</b>
State's Own Revenue as % of Total Receipts	26.3	29.2	31.2	28.4	28.7	25.8

Source : State Government Budgets

Among the direct taxes of the state government are included Stamp and Registration Fees, Taxes on Vehicles, Taxes and Duties on Electricity, Land Revenue, and Taxes on Agricultural Income, the last one being rather insignificant. Among the indirect taxes, which are far more important than the direct taxes, there are Taxes on Sales/Trade, State Excise, Taxes on Goods and Passengers, and Other Taxes and Duties on Commodities and Services. The details of receipts from these tax heads from 2011-12 to 2016-17 are shown in Table 2.19. The receipts from state excise, however, shows a decline after the imposition in prohibition in January 2016, since excise on alcohol accounted for nearly the entire receipts under state excise.

**Table 2.19 : Tax Revenues under Different Heads**

(Rs. crore)

Sources of Revenue	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Taxes on Sales, Trade etc.	7476	8671	8453	8607	10603	14021
Taxes on Goods and Passengers	828	1932	4349	4451	6087	7212
State Excise	1981	2430	3168	3217	3142	2100
Stamp and Registration Fees	1480	2173	2712	2699	3409	3800
Taxes on Vehicles	569	673	837	964	1081	1500
Land Revenue	167	205	202	277	695	330
Taxes & Duties on Electricity	55	103	141	375	298	590
Other Taxes/ Duties on Comm. and Services	26	29	50	105	69	89
Other taxes on Income & Expenditure	30	37	48	55	65	88
<b>Total</b>	<b>12612</b>	<b>16253</b>	<b>19961</b>	<b>20750</b>	<b>25449</b>	<b>29730</b>

Source : State Government Budgets

An analysis of the tax receipts of the state government reveals that its major sources are Sales Tax (VAT), Taxes on Goods and Passengers, Stamp and Registration Fees, State Excise Duty and Taxes on Vehicles. These five taxes together account for 96 percent of the state government's total tax receipts in 2015-16. The Sales Tax alone (Rs. 10,603 crore) comprised 42 percent of the total tax receipts in 2015-16, same as in the last year. This was followed by Taxes on Goods and Passengers (24 percent), Stamp and Registration Fees (13 percent), State Excise Duty (12 percent, till prohibition was imposed in January 2016) and Taxes on Vehicles (4 percent). Except state excise duty which will be insignificant in coming years, all these taxes are highly buoyant, their yields increasing steadily with the increase in GSDP. The composition of the state government's tax revenue is shown in Table 2.20 and their growth rates in Table 2.21.

**Table 2.20 : Composition of Tax Revenues**

Sources of Revenue	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Taxes on Sales/ Trade	59.3	53.3	42.3	41.5	41.7	47.2
Taxes on Goods and Passengers	6.6	11.9	21.8	21.5	23.9	24.3
State Excise	15.7	14.9	15.9	15.5	12.3	7.1
Stamp and Registration Fees	11.7	13.4	13.6	13.0	13.4	12.8
Taxes on Vehicles	4.5	4.1	4.2	4.6	4.2	5.0
Land Revenue	1.3	1.3	1.0	1.3	2.7	1.1
Taxes & Duties on Electricity	0.4	0.6	0.7	1.8	1.2	2.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : State Government Budgets

During the period 2011-12 to 2016-17 (BE), the highest annual growth rate has been registered by Taxes & Duties on Electricity (58 percent), followed by Taxes on Goods and Passengers (50 percent). The Stamp and Registration Fees registered an annual growth rate of 19 percent during the period, while Taxes on Vehicles registered an annual growth rate of 20 percent. The Sales Tax grew at a modest rate of 11 percent during this period. It should be noted here that the yearly growth rates of most of the taxes show wide variation, indicating the informal nature of large swathes of the state economy.

**Table 2.21 : Growth Rates of Tax Revenue**

Sources of Revenue	Percentage Growth over Previous Year					CAGR (2011-17)
	2012-13	2013-14	2014-15	2015-16	2016-17 BE	
Taxes on Sales, Trade etc.	16.0	-2.5	1.8	23.2	32.2	11.4
Taxes on Goods and Passengers	133.3	125.1	2.4	36.8	18.5	50.4
State Excise	22.7	30.4	1.5	-2.3	-33.2	3.1
Stamp and Registration Fees	46.8	24.8	-0.5	26.3	11.5	18.9
Taxes on Vehicles	18.3	24.4	15.1	12.2	38.7	20.1
Land Revenue	22.7	-1.8	37.4	150.8	-52.5	23.4
Taxes & Duties on Electricity	87.5	37.8	165.2	-20.5	98.0	58.3
Other Taxes and Duties	19.7	48.6	63.5	-16.5	32.1	27.3
<b>Total</b>	<b>28.9</b>	<b>22.8</b>	<b>4.0</b>	<b>22.6</b>	<b>16.8</b>	<b>17.6</b>

From Table 2.22, one can see that the direct taxes contributed only 22 percent of the total own tax revenue of the state government, indirect taxes contributing the rest 78 percent in 2015-16, 79 percent in the previous year. This indicates that the process of fiscal reforms of the state government is yet to be reflected in the structure of its tax administration. It also defies the trend noticed in the structure of central tax receipts, which has shifted very significantly in favour of direct taxes after the economic reforms were introduced. However, all states show this skewed structure of taxation, as the high yielding direct taxes like income tax or corporation tax are administered by the central government. This distribution is likely to undergo a change after roll out of the GST.

**Table 2.22 : Share of Direct and Indirect Taxes**

Source	2010-11	2010-11	2011-12	2012-13	2014-15	2015-16	2016-17 (BE)
Share of Indirect Taxes in State's Own Tax Revenue (%)	82	82	80	80	79	78	79
Share of Direct Taxes in State's Own Tax Revenue (%)	18	18	20	20	21	22	21
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 2.23 shows the major non-tax revenues of the state government, while its composition and growth rates are presented in Tables 2.24 and 2.25 respectively. The most important source of non-tax revenues has always been the royalty from mines and minerals, classified as receipts from 'Non-Ferrous Mining and Metallurgical Industries', followed by interest receipts. The minor minerals available in the state are brick earth, stones, limestone, sand, etc. The receipts against this element of non-tax revenues have grown consistently at an annual rate of nearly 22 percent during the period 2011-12 to 2015-16. In comparison, the growth of interest receipts, the second most important element of its non-tax revenues, has shown wide fluctuations during the period. These fluctuations arise from the nature of the interest receipts. Till 2007-08, these two heads together accounted for more than 60 percent of the total non-tax revenues of the state government; but due to the receipts of substantial debt relief from the central government, which was included under the head 'Miscellaneous General Services', the combined share of these two sources came down to 40 percent in 2009-10. Such debt relief ended with the end of the award period of the Twelfth Finance Commission in 2009-10, and in 2011-12, the share of these two heads was abnormally high due to the recovery of the excess amount of debt-relief (Rs 384 crore) paid in 2009-10.

In 2015-16, the total receipts from these two sources of non-tax revenues increased to Rs. 1555 crore, 27 percent higher than in the previous year. The receipts from these two sources constituted 71 percent of the total non-tax revenues of the state during the year. The budget

estimates for 2015-16 included Rs 1600 crore against 'Contributions and Recoveries on account of Pension' due from the Government of Jharkhand, against which the actual receipts were Rs 177 crore only. This amount relates to the pensioners-on-roll from the pre-reorganisation period, which was budgeted but never realized till 2012-13. For the current fiscal, the budget estimates under this head is Rs 500 crore.

**Table 2.23 : Major Non-Tax Revenues**

(Rs. crore)

Sources of Revenue	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Non-Ferrous Mining and Metallurgical Industries	443	511	569	880	971	1100
Interest Receipts	574	167	269	345	584	366
Miscellaneous General Services	-384	22	0	2	1	2
Other Administrative Services	11	10	10	22	73	23
Police	9	25	27	30	66	32
Major Irrigation	3	3	1	1	15	29
Education, Sports, Arts and Culture	7	8	14	11	41	11
Roads and Bridges	60	33	41	55	42	72
Medical and Public Health	24	41	30	30	40	32
Other Rural Development Programmes	30	21	28	29	24	31
Social Security and Welfare	1	1	-1	0	0	0
Others	111	294	555	154	328	660
<b>Total</b>	<b>890</b>	<b>1135</b>	<b>1545</b>	<b>1558</b>	<b>2186</b>	<b>2358</b>

Source : State Government Budgets

As regards the share of interest receipts, the second largest contributor to non-tax revenue, its share in total non-tax revenue had increased to 27 percent in 2015-16 from 22 percent in the previous year. In 2011-12, there was substantially higher collections under this head, due to contra-adjustment of Rs 268 crore on account of interest on loans given to the Bihar State Electricity Board, against its outstanding dues payable by the Department of Water Resources. The interest receipts had registered a sharp decline in 2012-13 due to less interest received from the investment of surplus cash balances of the state government. However, receipts on this account had increased from Rs 128 crore in 2012-13 to Rs 455 crore in 2015-16; consequently, the total interest receipts had also increased to Rs 584 crore in 2015-16. The non-tax revenues of the state government have been growing at an annual rate of 22 percent during 2011-12 to 2016-17 (BE), with wide variations from year-to-year.

**Table 2.24 : Composition of Non-Tax Revenues**

Revenue Sources	(Percentages)					
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Non-Ferrous Mining and Metallurgical Industries	49.8	45.0	36.8	56.5	44.4	46.6
Interest Receipts	64.5	14.7	17.4	22.1	26.7	15.5
Miscellaneous General Services	-43.1	1.9	0.0	0.1	0.0	0.1
Other Administrative Services	1.3	0.9	0.7	1.4	3.3	1.0
Other non-Tax Revenues	27.6	37.4	45.0	19.9	25.5	36.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : State Government Budgets

**Table 2.25 : Growth Rates of Non-Tax Revenues**

Revenue Sources	Yearly Growth Rates						CAGR (2011-17)
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE	
Non-Ferrous Mining and Metallurgical Industries	9.2	15.3	11.4	54.6	10.4	13.2	21.8
Interest Receipts	141.1	-70.9	61.2	27.9	69.3	-37.3	5.1
Miscellaneous General Services	-112976.5	-105.7	-98.7	611.0	-48.3	105.0	-
Other Administrative Services	-42.5	-12.9	1.7	113.9	233.5	-67.8	34.0
Other non-Tax Revenues	-23.7	73.2	63.7	-55.5	79.9	55.6	19.8
<b>Total</b>	<b>-9.7</b>	<b>27.6</b>	<b>36.1</b>	<b>0.9</b>	<b>40.3</b>	<b>7.9</b>	<b>21.6</b>

Note : A dash indicates that the growth rate is not computed, because of very old amount.

Source : State Government Budgets

Comparing the budget estimates of revenues with the actual collections for 2015-16 (Table 2.26), it is seen that there was a shortfall by Rs 6636 crore (19 percent) in overall revenue collections by the state during the year. The shortfall against budget estimates in respect of non-tax revenues was Rs 1210 crore (36 percent), and the shortfall in respect of tax revenues was Rs 5426 crore (18 percent). The shortfall in non-tax revenue was almost entirely due to the non-realisation of dues from the Government of Jharkhand (classified among 'Others'). The major shortfalls in tax revenues were in respect of Taxes on Sales and Trade (Rs 5422 crore), Stamp and Registration duty (Rs 591 crore) and State Excise (Rs 858 crore). There was a surplus collection in respect of — Taxes on Goods and Passengers (Rs 940 crore), Land Revenue (Rs 395 crore) and Taxes and Duties on Electricity (Rs 195 crore).



**Table 2.26 : Variation between the Estimated and Actual Realisation of Tax and Non-Tax Revenue (2015-16)**

(Rs. crore)

Revenue Sources	Budget Estimate	Actual Receipts	Variance (Excess+/ Shortfall -)	% Variation Excess (+), Shortfall (-)
<b>Own Tax Revenue</b>				
Taxes on Sales, Trade	16025	10603	-5422	-33.8
Taxes on Goods and Passengers	5147	6087	940	18.3
State Excise	4000	3142	-858	-21.5
Stamp and Registration Fees	4000	3409	-591	-14.8
Taxes on Vehicles	1200	1081	-119	-9.9
Land Revenue	300	695	395	131.7
Taxes & Duties on Electricity	103	298	195	189.3
Other Taxes and Duties on Commodities and Services	45	69	24	54.1
<b>Total</b>	<b>30875</b>	<b>25449</b>	<b>-5426</b>	<b>-17.6</b>
<b>Non Tax Revenue</b>				
Non-Ferrous Mining and Metallurgical Industries	1000	971	-29	-2.9
Interest Receipts	312	584	272	87.2
Miscellaneous General Services	0	1	1	—
Other Administrative Services	51	73	22	42.4
Police	29	66	37	127.6
Major Irrigation	30	15	-15	-50.0
Education, Sports, Arts and Culture	15	41	26	173.3
Roads and Bridges	64	42	-22	-34.4
Medical and Public Health	32	40	8	26.5
Other Rural Development Programmes	29	24	-5	-17.2
Social Security and Welfare	1	0	-1	-100.0
Others	1832	328	-1504	-87.3
<b>Total</b>	<b>3396</b>	<b>2186</b>	<b>-1210</b>	<b>-35.6</b>
<b>Grant Total (Tax + Non-Tax)</b>	<b>34271</b>	<b>27635</b>	<b>-6636</b>	<b>-19.4</b>

Source : State Government Budgets

The cost of collection of major taxes is shown in Table 2.27. It can be seen from the table that this cost is relatively higher for taxes on vehicles. Secondly, except for taxes on vehicles, the cost

of collection of major taxes as a percentage of total taxes collected has been decreasing in recent years, as a result of the modernization of infrastructure and introduction of technology.

**Table 2.27 : Cost of Collection of Taxes**

Year	Collection (Rs. crore)	Expenditure on collection (Rs. crore)	Cost as Percentage of Collection	Collection (Rs. crore)	Expenditure on collection (Rs. crore)	Cost as Percentage of Collection
	Taxes on sales / trade, etc			State excise		
2011-12	8414	65	0.8	1981	41	2.1
2012-13	10771	78	0.7	2430	43	1.8
2013-14	13041	70	0.5	3168	45	1.4
2014-15	13593	96	0.7	3217	50	1.6
2015-16	17121	90	0.5	3142	50	1.6
2016-17 BE	22000	103	0.5	2100	73	3.5
	Stamp duty and registration fee			Taxes on Vehicles		
2011-12	1480	43	2.9	569	22	3.9
2012-13	2173	45	2.1	673	25	3.8
2013-14	2712	55	2.0	837	30	3.6
2014-15	2699	52	1.9	964	38	3.5
2015-16	3409	55	1.6	1081	40	3.4
2016-17 BE	3800	78	2.1	1500	49	3.2

Source : State Government Budgets

Table 2.28 shows the state government's own tax and non-tax revenues as percentage of GSDP, which is a measure of its capacity to raise resources. The ratio of own tax revenues to the GSDP has risen slowly from 5.1 percent in 2011-12 to 6.2 percent in 2015-16. This ratio is rather low, compared to other states. The total tax and non-tax revenues, as percentage of the GSDP, which was just 5.5 percent in 2011-12, has improved to 6.7 percent in 2015-16. The total revenue, including central transfers and grants, which constituted 20.8 percent of the GSDP in 2011-12 rose to 23.2 percent in 2015-16. It has been projected to rise to 26.4 percent in 2016-17. While the ratio of own tax to GSDP in Bihar is one of the lowest in the country, the ratio between the total revenues and GSDP is quite high, due to the high volumes of central transfers to the state government.

**Table 2.28 : Tax and Non-tax Revenue as Percentage of GSDP**

Indicators	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Own Tax Revenue as % of GSDP	5.1	5.8	6.3	5.5	6.2	6.3
Own Non-Tax Revenue as % of GSDP	0.4	0.4	0.5	0.4	0.5	0.5
Total Revenue as % of GSDP	20.8	21.1	21.7	21.0	23.2	26.4
Buoyancy of Total Revenue w.r.t. GSDP (Ratio)	0.7	1.1	1.3	0.8	2.1	2.1
Buoyancy of State's Own Taxes w.r.t. GSDP(Ratio)	1.3	2.0	1.9	0.2	2.1	1.2

Source : State Government Budgets

Table 2.29 gives the buoyancy ratios in respect of the state government's major tax and non-tax revenues with respect to GSDP. From this table, it is noted that, in 2016-17, sales tax, taxes on vehicles, taxes and duties on electricity and taxes on goods and passengers are likely to be more buoyant than other tax heads of the state government. Given the significant growth rate of GSDP in recent years, these taxes have a huge potential for resource mobilisation. None of the major taxes remained buoyant in 2014-15, which explains why there was a shortfall in the collection of tax revenues in that year. Among the major sources of non-tax revenues, interest receipt showed negative buoyancy in 2016-17, while receipts from non-ferrous metals etc. was buoyant in 2014-15, but not so in 2015-16.

**Table 2.29 : Buoyancy of Important Tax and Non-Tax Revenue Sources**

Revenue Sources	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Taxes on Sales, Trade	3.0	1.1	-0.2	0.1	2.2	2.3
Stamp and Registration Fees	1.6	3.3	2.0	0.0	2.5	0.8
Taxes on Goods and Passengers	-2.7	9.4	10.2	0.1	3.5	1.3
State Excise	1.4	1.6	2.5	0.1	-0.2	-2.4
Taxes on Vehicles	1.2	1.3	2.0	0.8	1.2	2.8
Land Revenue	1.0	1.6	-0.1	2.1	14.2	-3.8
Taxes & Duties on Electricity	-0.8	6.1	3.1	9.2	-1.9	7.0
<b>Total Tax Revenue</b>	<b>0.9</b>	<b>1.3</b>	<b>1.1</b>	<b>0.3</b>	<b>2.7</b>	<b>1.3</b>
Non Ferrous Minerals	0.4	1.1	0.9	3.0	1.0	0.9
Interest Receipts	6.6	-5.0	5.0	1.6	6.5	-2.7
<b>Total Non Tax Revenue</b>	<b>-0.5</b>	<b>1.9</b>	<b>2.9</b>	<b>0.0</b>	<b>3.8</b>	<b>0.6</b>

Source : State Government Budgets

Table 2.30 shows the trend of revenues from grants from the central government. The total grants received by the state government was Rs 19,566 crore in 2015-16, as against Rs 9883 crore received in 2011-12. The total grants have increased twofolds during the five years

2011-12 to 2015-16. In 2015-16, 82 percent of the total grants (78 percent in 2014-15) were received in respect of State Plan Schemes, after abolition of the direct off-budget transfers in respect of Centrally Sponsored Schemes which are now being entirely routed through the budget. The volume of central grants is projected to rise substantially during the current fiscal to Rs 34,142 crore, an increase of nearly 75 percent. The distinction between plan and non-plan expenditure being abolished from the next fiscal, the state will have better control over use of such grants in future.

**Table 2.30 : Grants and Contributions from Central Government**

(Rs. crore)

Sources	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Grants for State Plan Schemes	5065	5052	6238	14936	13886	28778
Grants for Central Plan Schemes	96	36	137	117	2084	848
Grants for Centrally Sponsored Schemes	2159	2778	2921	822	161	0
Non-plan Grants	2563	2413	3288	3271	3434	4516
<b>Total Grants</b>	<b>9883</b>	<b>10278</b>	<b>12584</b>	<b>19146</b>	<b>19566</b>	<b>34142</b>

Source : State Government Budgets

## 2.8 Performance of Tax Departments

### Commercial Taxes Department

The Commercial Taxes Department collects taxes under eight acts — (i) Bihar Value Added Tax Act, 2005 (VAT); (ii) Bihar Tax on Entry of Goods into Local Area for Consumption, Use or Sale therein Act, 1993 (ET); (iii) Central Sales Tax Act, 1956 (CST); (iv) Bihar Electricity Duty Act, 1948 (ED); (v) Bihar Entertainment Tax Act, 1948 (ENT); (vi) Bihar Taxation On Luxuries in Hotel Tax Act, 1988 (HLT); (vii) Bihar Advertisement Tax Act, 1981 (ADV) and (viii) Bihar Tax on Professions, Trades, Calling and Employment Act, 2011 (PT).

Table 2.31 shows the taxes collected during 2011-12 to 2015-16 and till September for the current fiscal (2016-17). The VAT that had replaced the Sales Tax is the major contributor and accounts for about 62 percent of the total commercial tax collections by the state government in 2015-16, compared to 64 percent in the previous year. Besides VAT, Entry Tax is the only other major source of revenue and it contributed 35 percent to its total collections in 2015-16. These two taxes together, thus, accounted for 97 percent of the Department's total tax collections. The trend of collections tax-act-wise and tax-circle-wise is presented in Table A 2.1 (Appendix) for 2014-15 and 2015-16, and Table A 2.2 (Appendix) for 2016-17 (up to September). Table 2.32 shows the year-wise shares of commercial taxes in the state government's revenue. The ratio was 17 percent in 2011-12, but had since increased to 19 percent in 2013-14, before declining to 18 percent in 2015-16. However, their share in the state's total own taxes increased marginally from 67 percent in 2011-12 to 68 percent in 2015-16.

**Table 2.31 : Act-wise Commercial Tax Collection**

(Rs. crore)

Year	BST/ VAT	CST	ENT	ED	ADV	HLT	ET	PT	Total
2011-12	5668	75	25	55	0	7	2591	36	<b>8458</b>
2012-13	7391	74	28	102	1	8	3268	40	<b>10911</b>
2013-14	8546	83	39	141	1	10	4283	53	<b>13156</b>
2014-15	8796	71	46	373	1	11	4406	55	<b>13758</b>
2015-16	10726	60	55	297	1	11	6162	66	<b>17378</b>
2016-17 upto Sept. 2016	4336	27	27	82	0	3	2268	6	<b>6749</b>

Source : Department of Commercial Taxes, GOB

**Table 2.32 : Share of Commercial Taxes in Total Revenue**

Amounts	2011-12	2012-13	2013-14	2014-15	2015-16
Total Revenue of State (Rs. crore)	51320	59567	68919	78417	96123
State's Own Tax Revenues (Rs. crore)	12612	16253	19961	20750	25449
Revenue from Commercial Taxes (Rs. crore)	8458	10911	13156	13758	17378
Percentage Share of Commercial Taxes in Total Revenue (%)	16.5	18.3	19.1	17.5	18.1
Percentage Share of Commercial Taxes in State's Own Taxes (%)	67.1	67.1	65.9	66.3	68.3

Source : Department of Commercial Taxes, GOB

The commodity-wise collection of sales tax is depicted in Table 2.33, from which it can be seen that Petro-products have always been the single largest contributor to sales tax; it contributed Rs. 4385 crore in 2015-16, which was around 25 percent of the total collection of sales tax compared to 24 percent a year ago. Its contribution is more than three times that of the second major contributor, viz., Crude oil (Rs 1350 crore) which yielded only Rs 635 crore in the previous year. Other important contributors, in order of their contributions are — Electrical Goods, Cement, Indian Made Foreign Liquor (IMFL), Unregistered Dealers and Works Contracts, FMCG, Four-Wheelers and Chassis of Automobiles, Drugs and Medicines, Two/Three-Wheelers, Works Contracts, Country Liquor, Iron and Steel, Coal, Fertiliser and Insecticides, and Consumer Durables. While some of these, like Biscuits, Consumer Durables, Electrical Goods, Country Liquor, Telephone, etc. have registered substantial growth in 2015-16, most high yielding items have registered only modest growth below 20 percent. Coal and Crude Oil which had registered substantial negative growth during the previous year could revert back to positive growth during this year. The collections from Petro-products grew by 34 percent.

**Table 2.33 : Comparative Commodity-wise Collection of Sales Tax**

(Rs. crore)

Sl. No.	Name of commodity	Collection (in crore)			Rate of Growth (%)		
		2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
1	Advertisement Tax	0	1	1	-19.99	9.37	9.83
2	Asbestos	27	32	45	-4.00	21.79	40.10
3	Auto parts	72	74	95	26.36	2.98	27.94
4	Battery	102	96	112	40.34	-5.38	16.72
5	Beverages	72	129	100	-0.73	80.10	-22.65
6	Bhujia	8	9	14	64.19	12.65	49.66
7	Bicycle	27	23	25	17.95	-14.70	8.38
8	Biscuits	140	126	177	25.70	-10.20	40.76
9	Bricks	34	36	43	14.53	7.77	17.22
10	Cement	929	920	1005	16.13	-0.92	9.19
11	Coal	378	223	262	33.81	-40.89	17.19
12	Computer	60	68	76	-7.09	13.50	12.13
13	Consumer Durables	145	173	225	17.14	19.60	30.26
14	Country Liquor	203	266	355	28.78	30.96	33.29
15	Crockery, Cutlery, Glassware & Ceramic ware	3	3	4	38.47	23.03	3.70
16	Crude Oil	817	635	1350	159.41	-22.25	112.46
17	Diesel Oil	0	2	4	-69.83	367.92	87.02
18	Drugs and Medicines	408	459	469	14.05	12.66	2.07
19	Dry Fruits	3	3	3	94.15	-5.39	0.49
20	Edible Oil	95	107	135	43.58	12.73	26.21
21	Electrical Goods	546	787	1093	60.49	43.96	38.88
22	Electricity Duty	1	1	1	85.82	-30.61	-14.34
23	Electronic Goods	100	106	121	24.75	5.80	13.77
24	Engine & Motors	25	24	25	2.68	-5.40	4.10
25	Entertainment Tax	18	10	10	14.08	-41.82	-2.21
26	Ethanol	7	7	12	-15.44	-10.87	75.31
27	Fast Food & Cooked Food	139	138	157	15.32	-0.32	13.71
28	Fertiliser & Insecticides	171	188	244	-13.35	8.94	30.65
29	Fire Work	4	6	7	149.03	48.24	18.81
30	FMCG	492	523	615	18.94	6.18	17.56
31	Foodgrains	174	89	86	85.86	-48.81	-3.30
32	Footwear	37	42	49	33.72	13.84	16.38
33	Four-Wheelers & Chassis of Automobile	491	528	596	-4.70	7.53	12.88
34	Furniture	41	42	47	28.90	2.68	13.11
35	Ghee & Vanaspati	99	100	116	-0.50	1.09	15.68
36	Glasses	10	11	14	19.84	11.36	22.82
37	Gun & Rifles	1	1	1	13.70	2.33	9.87
38	Hardware	29	34	36	48.28	16.75	7.08
39	Hawai Chappals	0	1	1	67.20	138.03	20.14
40	Hide & Skin	1	2	1	25.91	31.35	-7.30
41	Hosiery And Readymade	73	80	93	25.01	9.78	16.30
42	IMFL	747	780	998	27.69	4.39	27.92
43	Iron & Steel	281	293	333	18.32	4.29	13.72
44	Jewellery	13	14	17	-14.30	8.19	26.04
45	Kerosene	2	2	3	6.99	4.68	25.34
46	Kirana	50	52	55	59.71	4.16	5.11

Sl. No.	Name of commodity	Collection (in crore)			Rate of Growth (%)		
		2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
47	LPG	6	7	9	20.30	21.85	23.27
48	Lubricants	55	56	64	16.70	3.43	13.11
49	Luxury And Hotel	9	9	10	16.74	2.55	6.82
50	Marble And Granites	27	35	43	45.82	30.58	23.95
51	Matches	1	1	1	151.60	-7.94	-2.91
52	Moulded Luggage	9	9	11	22.27	-0.97	27.21
53	Not Tagged	1	3	2	1888.01	212.96	-41.64
54	Not Tagged with any Commodity	20	15	12	139.09	-22.78	-23.75
55	Others @ 1	0	0	0	0.00	603.74	21.21
56	Others @ 12.5	35	14	16	21.40	-58.88	9.00
57	Others @ 13.5	44	85	160	180.83	91.42	88.13
58	Others @ 4	7	7	9	0.97	0.01	25.14
59	Others @ 5	35	51	59	312.19	46.08	15.84
60	Others (Tax Free)	17	15	15	24.03	-12.21	-0.43
61	Paints	83	89	110	36.59	6.93	24.32
62	Pan Masala	91	76	11	59.88	-16.77	-86.07
63	Paper	38	39	40	61.94	2.91	2.84
64	Petro Products	3152	3284	4385	8.25	4.19	33.51
65	Petrol	1	2	3	101.15	23.78	73.97
66	Plastic Goods	49	51	68	42.15	3.49	33.13
67	Plyboard	11	14	16	103.44	23.72	13.84
68	Plywood	9	12	15	12.65	29.35	23.56
69	Processed Vegetable & Food	6	7	8	42.57	21.88	13.12
70	Professional Tax	51	52	65	37.76	2.95	24.66
71	Sand	10	26	20	31.57	154.65	-23.82
72	Sanitary Fittings & Tiles	46	50	59	35.74	8.76	18.82
73	Sarees More Than Rs. 2000/Pc	0	0	0	0.00	0.00	0.00
74	Shewing Machine	0	1	1	70.59	21.76	18.72
75	Spectacles	1	1	1	61.51	36.38	10.69
76	Sport Goods	1	1	1	23.14	7.84	9.68
77	Staple Yarn	3	3	2	26.02	-4.04	-12.79
78	Stationery	10	11	14	31.58	9.80	21.46
79	Stone Chips And Ballast	10	14	11	42.19	42.14	-20.13
80	Tea & Coffee	12	13	15	47.89	12.03	10.23
81	Telephone	113	141	180	12.81	24.57	27.69
82	Textile Fibers More Than Rs.500/Mtr	0	0	0	0.00	0.00	0.00
83	Timber	17	22	22	58.74	26.97	2.15
84	Tobacco	158	167	200	4.66	5.69	19.60
85	Tools	12	10	9	22.91	-19.04	-7.00
86	Tractors	126	125	130	18.46	-0.73	4.14
87	Transporter	0	0	0	-26.69	152.39	-56.36
88	Two And Three Wheelers	336	378	452	23.42	12.50	19.52
89	Tyres & Tubes	114	120	133	0.14	5.37	10.56
90	Unregistered Dealer Others	344	476	472	-12.12	38.06	-0.70
91	Unregistered Dealer Works Contractor	659	750	912	34.70	13.76	21.52
92	Utensils	7	4	4	89.39	-37.90	2.36
93	Watch & Clock	13	12	14	15.56	-4.12	20.11
94	Works Contract And TDS	334	248	371	-.51	-25.62	49.35
	<b>Total</b>	<b>13156</b>	<b>13750</b>	<b>17378</b>	<b>20.63</b>	<b>4.51</b>	<b>26.39</b>

Source : Department of Commercial Taxes, GOB

### Department of Prohibition, Excise and Registration

The Department of Prohibition, Excise and Registration is responsible for the collection of Excise Duty, as well as the Stamp Duty and Registration Fees. In terms of revenue collection, it was second only to the Department of Commercial Taxes, before prohibition was imposed by the state government in January 2016. Table 2.34 shows the collections of State Excise Duty during the last five years. More than 96 percent of total state excise duty collections were contributed by country spirit and foreign liquors/spirits during 2014-15; these two together yielded Rs 3102 crore, out of the total excise collections of Rs 3216 crore. During 2015-16, these two again yielded Rs 2829 crore, out of the total excise duty collection of Rs. 3224 crore.

**Table 2.34 : Collections of State Excise Duty**

(Rs. crore)

Sources of Revenue	2011-12	2012-13	2013-14	2014-15	2015-16
Country Spirits	624	777	1223	1325	1184
Country Fermented Liquors	0	0	5	24	8
Malt Liquor	5	6	9	8	0
Liquor	0	0	0	0	41
Foreign Liquors and Spirits	1294	1579	1854	1777	1645
Commercial & denatured Spirit & Medicated wines	0	0	0	1	0
Medicinal and toilet preparations containing alcohol, opium etc.	1	1	1	4	0
Opium, Hemp & other drugs	6	7	6	2	0
Fines and confiscations	19	14	17	27	27
Other Receipts	32	47	52	47	308
Deduct-Refunds	-1	0	0	0	11
<b>Total</b>	<b>1981</b>	<b>2430</b>	<b>3168</b>	<b>3216</b>	<b>3224</b>

Source : Department of Prohibition, Excise and Registration, GOB

Table 2.35 shows the details of revenue from Stamp Duties and Registration Fees during the period 2011-12 to 2015-16. The trend of the data reveals that there has been a steady increase in the collection of Stamp Duty from Rs. 1608 crore in 2011-12 to Rs. 3295 crore in 2015-16, at an



annual growth rate of 20 percent. The total collections in 2015-16 had increased by 15 percent compared to 2014-15, on account of a increase in respect of the the most important component – non-judicial stamp duty.

**Table 2.35 : Revenue from Stamp Duty and Registration Fees**

(Rs. crore)

Source of Revenue	2011-12	2012-13	2013-14	2014-15	2015-16
From Printed Non-judicial stamps	356	369	320	330	391
From Non-judicial stamp duty deposited through Bank challan	809	1340	1856	1750	2024
Non-Judicial adhesive stamps	17	13	28	30	32
Non Judicial special adhesive stamp – through Franking machines	8	24	16	18	20
Revenue Stamps	2	3	2	2	2
Judicial Stamps	32	12	36	37	40
<b>Sub-Total</b>	<b>1224</b>	<b>1761</b>	<b>2257</b>	<b>2167</b>	<b>2508</b>
Fees on registration of instruments	356	522	668	646	741
Landlord's Registration fee	21	27	32	31	34
Landlord's Process fee	3	4	4	4	5
Fee from searches of records & Non-Encumbrances	2	2	4	5	5
Fee from certified copies	2	3	2	2	2
<b>Sub-Total</b>	<b>384</b>	<b>558</b>	<b>711</b>	<b>688</b>	<b>787</b>
<b>Total</b>	<b>1608</b>	<b>2319</b>	<b>2968</b>	<b>2855</b>	<b>3295</b>

Source : Department of Prohibition, Excise and Registration, GOB

Table 2.36 shows the district-wise collection of revenue from Stamp Duties and Registration Fees till September, 2016 for the year 2016-17. Patna district expectedly contributes the maximum revenue (about 20 percent) from this source, more than three times the collection from Muzaffarpur, the next highest contributor. The pattern of contributions of the districts remains more or less the same as the last year. The details for the years 2014-15 and 2015-16 are shown in Table A 2.3 (Appendix).

**Table 2.36 : District-wise Revenue from Stamp Duty and Registration Fees, 2016-17 (Upto Sept., 2016)**

(Rs. crore)

District	No. of Documents	Registration Fees	Stamp Fee	Total Receipt	Target	% receipt against target	Receipt per Document (Rs.)
Patna	38786	74.83	261.04	335.88	354.05	94.87	86598
Nalanda	14375	10.74	33.95	44.70	42.84	104.34	31096
Bhojpur	14500	14.69	39.90	54.59	44.68	122.18	37648
Buxar	7234	6.28	18.71	24.99	24.81	100.73	34545
Rohtas	14117	13.39	41.02	54.41	46.55	116.89	38542
Kaimur	7924	4.58	13.38	17.96	17.50	102.63	22665
Gaya	18555	16.44	52.08	68.52	77.27	88.68	36928
Jehanabad	5074	4.39	14.67	19.06	16.59	114.89	37564
Arwal	9486	5.39	16.11	21.51	7.32	293.85	22676
Nawada	9486	5.39	16.11	21.51	25.33	84.92	22676
Aurangabad	11327	9.57	28.98	38.55	38.41	100.36	34034
Saran	18171	12.41	36.00	48.41	50.69	95.50	26641
Siwan	16788	11.70	33.85	45.55	49.71	91.63	27132
Gopalganj	14687	11.06	32.23	43.29	45.62	94.89	29475
West Champaran	30123	21.04	60.33	81.37	85.97	94.65	27013
East Champaran	3755	1.86	5.34	7.21	43.55	16.56	19201
Muzaffarpur	26374	23.76	68.53	92.29	103.58	89.10	34993
Sitamarhi	18409	11.29	32.06	43.35	50.04	86.63	23548
Sheohar	3755	1.86	5.34	7.21	7.59	94.99	19201
Vaishali	17125	13.97	41.55	55.52	61.78	89.87	32420
Darbhanga	18203	13.26	38.96	52.22	55.98	93.28	28688
Madhubani	22935	12.06	34.04	46.1	50.04	92.13	20100
Samastipur	24808	13.60	39.82	53.42	54	98.93	21533
Begusarai	14283	12.44	38.51	50.95	51.08	99.75	35672
Munger	4298	4.44	14.42	18.86	19.12	98.64	43881
Sheikhpura	4252	1.83	5.97	7.80	7.85	99.36	18344
Lakhisarai	4822	3.37	10.34	13.71	14.17	96.75	28432
Jamui	7860	3.91	11.51	15.42	15.90	96.98	19618
Khagaria	7035	4.55	12.82	17.36	15.90	109.18	24677
Bhagalpur	12786	17.24	53.81	71.05	59.64	119.13	55569
Banka	8759	5.61	13.93	19.54	19.75	98.94	22308
Saharsha	8597	6.04	18.99	25.03	28.01	89.36	29115
Supaul	10668	5.14	14.71	19.85	23.80	83.40	18607
Madhepura	9093	6.48	19.15	25.63	24.98	102.60	28187
Purnea	16922	12.73	39.42	52.15	53.19	98.04	30818
Kishanganj	12953	5.38	16.46	21.83	22.00	99.23	16853
Araria	12953	5.38	16.46	21.83	32.09	68.03	16853
Katihar	18227	9.98	30.15	40.13	38.62	103.91	22017
<b>Total</b>	<b>1103174</b>	<b>418.07</b>	<b>1280.67</b>	<b>1698.75</b>	<b>1780.00</b>	<b>95.44</b>	<b>15399</b>

Source : Department of Prohibition, Excise and Registration, GOB

## 2.9 Expenditure Management

The expenditure of the state government is classified under three major functional categories — General Services, Social Services and Economic Services. Apart from revenue expenditure and capital outlay on these services, the other areas of spending are repayment of loans and advances on the capital account, and grants to local bodies and autonomous institutions. The state government also gives loans for various purposes to its Public Sector Undertakings, Urban Local Bodies, Panchayati Raj Institutions, and to its own employees. It is to be noted that while the repayments of principal amounts of loans are made from the capital account, interest payment is made from the revenue account, under the General Services.

Table 2.37 presents the expenditure of the state government under various heads for the period 2011-12 to 2016-17. Tables 2.38 and 2.39 present the structure of the expenditure during this period. Finally, Table 2.40 presents the annual growth rates of various expenditure items. These four tables together give us an insight into the expenditure pattern of the state government.

**Table 2.37 : Expenditure from Consolidated Fund**

(Rs. crore)

Expenditure Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
General Services	17730	18645	22018	26408	27972	36185
Social Services	18729	23107	26395	31713	35943	47147
Economic Services	10038	12710	14060	14445	19696	26605
Grants in Aid	3	4	4	4	4	5
Capital Outlay	8852	9585	14001	18150	23966	30107
Discharge of Public Debt	2922	3070	3120	3609	4125	4074
Loans and Advances by State	1906	2086	807	369	621	574
<b>Total</b>	<b>60180</b>	<b>69207</b>	<b>80405</b>	<b>94698</b>	<b>112328</b>	<b>144696</b>

Source : State Government Budgets

Between 2005-06 and 2009-10, the share of capital outlay in the total expenditure of the state government had increased from 9 to 17 percent; thereafter, it has generally remained around that level till 2013-14, after which it began rising again. In 2015-16, capital outlay claimed 21 percent of the total expenditure and is expected to remain at that level during the current fiscal 2016-17 (Table 2.38). For the future growth of the state economy, the increase in capital outlay is a very positive development.

The revenue expenditure on general services is of non-developmental nature and its share in total expenditure was 25 percent in 2015-16, down from 28 percent a year ago. In 2015-16, the shares of other components were — social services (32 percent), economic services (18 percent), capital outlay (21 percent), discharge of public debt (4 percent) and loans and advances (0.6 percent).

The capital outlay grew annually at 28 percent, and it increased by about Rs 15,000 crore between 2011-12 (Rs 8852 crore) and 2015-16 (Rs 23,966 crore). The increase in capital outlay has catapulted the economy of the state to one of the fastest growing among all major states in India. The overall pattern shows some structural changes in the expenditure pattern over the years. While the share of expenditure on social services remains nearly the same, the expenditure pattern has shifted in favour of economic services and capital outlay at the expense of expenditure on general services, which is a welcome feature. It shows that funds used earlier for running the administration are now being released increasingly for expenditure on development and asset creation in the economy.

**Table 2.38 : Composition of Government Expenditure**

(Percentage)

Expenditure Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
General Services	29.5	26.9	27.4	27.9	24.9	25.0
Social Services	31.1	33.4	32.8	33.5	32.0	32.6
Economic Services	16.7	18.4	17.5	15.3	17.5	18.4
Capital Outlay	14.7	13.8	17.4	19.2	21.3	20.8
Discharge of Public Debt	4.9	4.4	3.9	3.8	3.7	2.8
Loans and Advances	3.2	3.0	1.0	0.4	0.6	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : State Government Budgets

**Table 2.39 : Percentage Composition of Total Expenditure**

Expenditure Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>Revenue A/c</b>	<b>77.27</b>	<b>78.70</b>	<b>77.70</b>	<b>76.63</b>	<b>74.44</b>	<b>75.98</b>
<b>Non-Developmental Revenue Expenditure</b>	<b>29.08</b>	<b>26.56</b>	<b>26.94</b>	<b>27.48</b>	<b>24.50</b>	<b>24.60</b>
<b>Developmental Revenue Expenditure</b>	<b>48.19</b>	<b>52.14</b>	<b>50.76</b>	<b>49.16</b>	<b>49.94</b>	<b>51.38</b>
General Services (Public Works)	0.39	0.39	0.45	0.42	0.40	0.41
Social Services	31.12	33.39	32.83	33.49	32.00	32.58
Economic Services	16.68	18.37	17.49	15.25	17.53	18.39
<b>Capital A/c</b>	<b>22.73</b>	<b>21.30</b>	<b>22.30</b>	<b>23.37</b>	<b>25.56</b>	<b>24.02</b>
<b>Non-Developmental Capital Expenditure</b>	<b>5.57</b>	<b>5.12</b>	<b>5.04</b>	<b>4.63</b>	<b>5.99</b>	<b>3.67</b>
General Service (Except Public Works)	0.69	0.66	1.14	0.81	2.30	0.84
Discharge of Public Debt (General Services)	4.86	4.44	3.88	3.81	3.67	2.82
Loans and Advances by State (General Services)	0.03	0.02	0.01	0.01	0.02	0.01
<b>Developmental Capital Expenditure</b>	<b>17.16</b>	<b>16.18</b>	<b>17.26</b>	<b>18.73</b>	<b>19.57</b>	<b>20.35</b>
Capital Outlay (General Services (Public Works), Social and Economic Services)	14.02	13.19	16.27	18.36	19.04	19.96
Loans and Advances by State (Social and Economic Services)	3.14	2.99	0.99	0.38	0.53	0.38
<b>Total Non- Developmental Expenditure</b>	<b>34.65</b>	<b>31.68</b>	<b>31.98</b>	<b>32.11</b>	<b>30.49</b>	<b>28.28</b>
<b>Total Developmental Expenditure</b>	<b>65.35</b>	<b>68.32</b>	<b>68.02</b>	<b>67.89</b>	<b>69.51</b>	<b>71.72</b>
<b>Total Expenditure</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : State Government Budgets

Table 2.39 presents the composition of total expenditure of the state government in more detail. From this table, it is seen that social and economic services, essential for the development of the state, now account for the bulk of the expenditure, reflecting the state government's commitment to improve the social sectors. The revenue and capital accounts claimed 74 and 26 percent respectively of the total expenditure (2015-16). About 70 percent of the total expenditure was of developmental nature and 30 percent non-developmental in 2015-16. In 2011-12, these shares were 65 and 35 percent respectively.

As observed earlier, the state government has been able to manage its debt problem quite well in recent years by consistently generating substantial surpluses in its revenue account. The servicing of debt now accounts for around 4 percent of the total expenditure and interest payment consumes another 6 percent. Containing the debt burden within manageable limits has enabled the state government to launch ambitious programmes for infrastructure, essential for economic growth of the state. From Table 2.40, it is seen that the annual growth rate of capital outlay is as high as 29 percent during the recent period 2011-12 to 2016-17. The expenditure on both social and economic services has also been growing at high rates of 19 percent. On the whole, the total expenditure of the state government has also been growing annually at 19 percent.

**Table 2.40 : Growth Rates of Expenditure**

Expenditure Heads	Annual Growth Rates						CAGR (2011-17)
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE	
General Services	16.0	5.2	18.1	19.9	5.9	29.4	<b>15.2</b>
Social Services	24.1	23.4	14.2	20.1	13.3	31.2	<b>19.1</b>
Economic Services	28.1	26.6	10.6	2.7	36.4	35.1	<b>19.4</b>
Capital Outlay	-3.7	8.3	46.1	29.6	32.0	25.6	<b>29.8</b>
Discharge of Public Debt	33.4	5.0	1.6	15.7	14.3	-1.2	<b>8.0</b>
Loans and Advances	72.9	9.4	-61.3	-54.3	68.5	-7.6	<b>-25.7</b>
<b>Total</b>	<b>18.7</b>	<b>15.0</b>	<b>16.2</b>	<b>17.8</b>	<b>18.6</b>	<b>28.8</b>	<b>18.7</b>

Source : State Government Budgets

Within general services, expenditure on certain items cannot be much controlled. These are mostly items of charged expenditure, like pension and interest payment, expenditure in respect of judiciary, jails, police and the like, which can be curtailed only at a great peril to the state government. For all these items, the expenditure has been rising steadily. Even though the share of general services in the total expenditure of the state government has been going down, in absolute terms, it has grown steadily at an annual rate of around 15 percent during the period 2011-12 to 2016-17. Besides steep increases in interest payments and pension charges, this

increase has also been due to increased expenditure on police administration, district administration, judiciary, legislature, tax departments, and public works. In 2015-16, expenditure on general services increased by 6 percent over the previous year, compared to 20 percent a year ago.

## 2.10 Revenue Expenditure

Table 2.41 depicts the details of revenue expenditure of the state government, which is incurred to maintain the present level of activities. The share of revenue expenditure in total expenditure has remained almost unchanged between 75-79 percent during the period 2011-12 to 2015-16. The non-plan component of revenue expenditure consumes the bulk of it. In 2015-16, it constituted 56 percent of the total revenue expenditure, compared to 66 percent in 2011-12. The shares of plan and non-plan expenditure in total expenditure had also undergone gradual shifts over the past five years, with the share of non-plan expenditure decreasing from 62 percent in 2011-12 to 52 percent in 2015-16. With the winding up of the Planning Commission and abolition of the distinction between plan and non-plan expenditure, this discussion about plan and non-plan expenditure has already become irrelevant and rightly so, since every government expenditure approved by the legislature is equally important.

**Table 2.41 : Details of Revenue Expenditure**

(Rs. crore)

Expenditure Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Revenue Expenditure (RE)	46500	54466	62477	72570	83616	109941
Capital Expenditure (CE)	13682	14740	17928	22128	28712	34755
<b>Total Expenditure (TE)</b>	<b>60182</b>	<b>69207</b>	<b>80405</b>	<b>94698</b>	<b>112328</b>	<b>144696</b>
<b>Non Plan Expenditure</b>	<b>37174</b>	<b>40825</b>	<b>46728</b>	<b>50759</b>	<b>58596</b>	<b>72277</b>
Revenue A/c (NPPE)	34013	37574	43381	47059	53965	67981
Capital A/c	3161	3252	3347	3700	4630	4296
<b>Plan Expenditure</b>	<b>23008</b>	<b>28381</b>	<b>33678</b>	<b>43939</b>	<b>53732</b>	<b>72419</b>
Revenue A/c (PRE)	12487	16892	19096	25511	29651	41960
Capital A/c	10521	11489	14581	18428	24082	30459
Rate of growth of NPPE (%)	24.5	10.5	15.5	8.5	14.7	26.0
Rate of growth of PRE (%)	14.6	35.3	13.0	33.6	16.2	41.5
RE/TE(%)	77.3	78.7	77.7	76.6	74.4	76.0
NPPE/TE (%)	56.5	54.3	54.0	49.7	48.0	47.0
TE/GSDP(%)	24.4	24.5	25.4	25.3	27.2	30.7
RE/GSDP(%)	13.8	13.3	13.7	12.6	13.0	14.4
Revenue Receipt (RR)/TE (%)	85.3	86.1	85.7	82.8	85.6	86.1
NPPE/RR(%)	66.3	63.1	63.0	60.0	56.1	54.6
Buoyancy of RE w.r.t. GSDP	1.01	1.20	1.20	0.90	1.44	2.25
Buoyancy of RE w.r.t. RR	1.42	1.07	0.94	1.17	0.67	1.06

Source : State Government Budgets

The total government expenditure and revenue expenditure was 27 percent and 13 percent, respectively of the GSDP of Bihar in 2015-16. From the buoyancy ratios, it is seen that, during 2011-12 to 2015-16, the revenue expenditure increased at a faster rate than the GSDP, except in 2014-15. In the budget estimates of 2016-17, revenue expenditure has again been projected to grow at a much higher rate than the GSDP, because of much higher projected expenditure in economic services and capital outlay.

## 2.11 Expenditure on Salary and Pension

The salary and pension constitute the two most important items of expenditure for all governments. The trends in expenditure on salaries as well as pension are presented in Table 2.42. The pension and salary payments together constituted 32 percent of the state government's revenue expenditure in 2015-16 (same as last year); down from 43 percent five years ago.

**Table 2.42 : Expenditure on Salaries and Pensions**

(Rs. crore)

Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>Expenditure on Salaries</b>	<b>12194</b>	<b>13558</b>	<b>14037</b>	<b>14607</b>	<b>14924</b>	<b>18329</b>
Non-Plan Head	11495	12865	13315	13910	14307	17723
Plan Head	699	693	721	697	617	605
Salary as percentage of GSDP	4.9	4.8	4.4	3.9	3.6	3.9
Salary as percentage of RR	23.8	22.8	20.4	18.6	15.5	14.7
Salary as percentage of RE	26.2	24.9	22.5	20.1	17.8	16.7
<b>Expenditure on Pensions</b>	<b>7808</b>	<b>8364</b>	<b>9482</b>	<b>11345</b>	<b>11850</b>	<b>16285</b>
Rate of Growth	27.1	7.1	13.4	19.6	4.5	37.4
Pension as percentage of GSDP	3.2	3.0	3.0	3.0	2.9	3.5
Pension as percentage of RR	15.2	14.0	13.8	14.5	12.3	13.1
Pension as percentage of RE	16.8	15.4	15.2	15.6	14.2	14.8
<b>Total expenditure on Salary &amp; Pension</b>	<b>20002</b>	<b>21921</b>	<b>23518</b>	<b>25952</b>	<b>26774</b>	<b>34614</b>
Total as percentage of GSDP	8.1	7.8	7.4	6.9	6.5	7.3
Total as percentage of RR	39.0	36.8	34.1	33.1	27.9	27.8
Total as percentage of RE	43.0	40.2	37.6	35.8	32.0	31.5

Source : State Government Budgets

The salary of the state government employees alone accounted for 18 percent of the total revenue expenditure in 2015-16, gradually coming down from 26 percent in 2011-12. In the current fiscal, it is likely to further decrease to 17 percent. Similarly, pension constituted 14 percent of the revenue expenditure in 2015-16, down from 17 percent five years ago. During 2011-12 to 2015-16, there had been major increases in expenditure on these two accounts by almost Rs. 6772 crore (Rs 2730 crore for salary and Rs. 4042 crore for pension). The expenditure on salary and pension is projected to increase by about Rs 7840 crore in the budget estimates of 2016-17.

However, the salary expenses lie well within the norm of 35 percent of revenue expenditure, as recommended by the Twelfth Finance Commission. The salary and pension payments had increased annually at the rate of 5 percent and 11 percent respectively during the period 2011-12 to 2015-16. The total expenditure on these two accounts registered an annual growth rate of nearly 8 percent during this period.

## 2.12 Quality of Expenditure

The quality of expenditure can be judged by the proportion of expenditure devoted to the creation of social and physical infrastructure, proportion of developmental expenditure on social and economic services as opposed to the non-developmental expenditure on general services, and the proportion of plan expenditure as opposed to non-plan expenditure. Thus, the important parameters of quality in expenditure are : (i) ratio of capital outlay to total expenditure; (ii) ratio of capital outlay to GSDP; (iii) proportion of revenue expenditure on social and economic services; (iv) proportion of non-salary expenditure incurred in these services; and (v) ratio of plan to non-plan expenditure. The higher these ratios, the better the quality of expenditure would become. Table 2.43 shows these ratios during the five-year period from 2011-12 to 2015-16 and also for the budget estimates of 2015-16.

**Table 2.43 : Quality Parameters of Expenditure**

Expenditure Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Capital Outlay (Rs. crore)	8852	9585	14001	18150	23966	30107
Revenue Expenditure (Rs. crore)	46500	54466	62477	72570	83616	109941
Expenditure on Social/ Economic Services (Rs. crore)	28767	35817	40455	46158	55639	73751
(i) Salary Component (Rs. crore)	8171	9033	9072	9046	9108	10424
Salary component (%)	28.4	25.2	21.0	19.6	16.4	14.1
(ii) Non salary component (Rs. crore)	20596	26784	31383	37112	46531	63327
Non-salary component (%)	71.6	74.8	79.0	80.4	83.6	85.9
Capital Outlay/ Total Expenditure (%)	14.7	13.8	17.4	19.2	21.3	20.8
Revenue Expenditure / Total Expenditure (%)	77.3	78.7	77.7	76.6	74.4	76.0
Revenue Expenditure /GSDP (%)	18.8	19.3	19.7	19.4	20.2	23.3
Capital Outlay /GSDP (%)	3.6	3.4	4.4	4.9	5.8	6.4
Plan Expenditure / Non-Plan Expenditure (%)	61.9	69.5	72.1	86.6	91.7	100.2
Plan Expenditure / Total Expenditure (%)	38.2	41.0	41.9	46.4	47.8	50.0

Source : State Government Budgets

Judged by all the parameters, the quality of expenditure in Bihar has significantly improved over the recent years. The non-salary component of developmental revenue expenditure had increased from 72 to 84 percent between 2011-12 and 2015-16, while the share of plan expenditure in total expenditure had increased from 38 to 48 percent during the same period. The ratio of plan to non-plan expenditure has also steadily increased from 62 percent to nearly 92 percent over this



period. All these ratios reflect that the public finances in Bihar are being managed prudently. These improvements have led to higher growth of GSDP of Bihar and improvement in socio-economic conditions of its people.

## 2.13 Sectoral Expenditure

### Expenditure on Social Services

Providing better education and health services, safe drinking water, sanitation, housing etc. is very important to establish the linkage between economic growth and welfare of citizens. This desired linkage can be established through adequate expenditure on social services. Table 2.44 presents such expenditures by the state government during 2011-12 to 2015-16 and also the budget estimates of 2016-17.

**Table 2.44 : Expenditure on Social Services**

Expenditure Heads	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>Education, Sports, Arts &amp; Culture</b>						
Total Expenditure (Rs. crore)	10214	14445	15047	16531	19155	22823
Revenue Expenditure (Rs. crore)	10157	14080	14344	16267	18605	21770
(a) Salary component (%)	43.5	35.9	33.7	28.7	23.34	21.76
(b) Non-salary component (%)	56.5	64.1	66.3	71.3	76.66	78.24
Capital Outlay (Rs. crore)	56	364	704	263	550	1053
Capital Outlay (%)	0.6	2.5	4.7	1.6	2.9	4.6
<b>Health and Family Welfare</b>						
Total Expenditure (Rs. crore)	2125	2398	2574	3604	4571	7718
Revenue Expenditure (Rs. crore)	1804	1836	2113	3288	3481	6793
(a) Salary component (%)	72.9	79.6	74.8	51.0	40.02	25.17
(b) Non-salary component (%)	27.1	20.4	25.2	49.0	59.98	74.83
Capital Outlay (Rs. crore)	321	563	460	316	1091	925
Capital Outlay (%)	15.1	23.5	17.9	8.8	23.9	12.0
<b>Water Supply, Sanitation, Housing and Urban Development</b>						
Total Expenditure (Rs. crore)	2045	2587	3605	4542	4518	7329
Revenue Expenditure (Rs. crore)	1713	2304	2967	3639	3694	5894
(a) Salary component (%)	11.6	8.9	8.0	6.6	5.24	4.23
(b) Non-salary component (%)	88.4	91.1	92.0	93.4	94.76	95.77
Capital Outlay (Rs. crore)	332	282	638	903	824	1435
Capital Outlay (%)	16.2	10.9	17.7	19.9	18.2	19.6
<b>Total (Social Services)</b>						
Total Expenditure (Rs. crore)	19536	24438	28253	33386	38684	51071
Revenue Expenditure (Rs. crore)	18729	23107	26395	31713	35943	47147
(a) Salary component (%)	33.6	30.7	26.6	21.9	17.87	15.09
(b) Non-salary component (%)	66.4	69.3	73.4	78.1	82.13	84.91
Capital Outlay (Rs. crore)	807	1331	1858	1674	2740	3924
Capital Outlay (%)	4.1	5.4	6.6	5.0	7.1	7.7

Source : State Government Budgets

The state government's concern for social development is amply reflected in the increased allocation for this sector from Rs. 19,536 crore in 2011-12 to Rs. 38,684 crore in 2015-16. In the budget estimates of 2016-17, social services expenditure is projected to increase further by Rs. 12,387 crore (32 percent). The share of capital outlay in social services sector, with some fluctuations in between, increased from 4 percent in 2011-12 to 7 percent in 2015-16, and it has been projected to rise further to 8 percent in the budget of 2016-17.

The non-salary component of the revenue expenditure on social services (the amount spent on the maintenance of assets already created) was 82 percent in 2015-16, as against 66 percent in 2011-12. The salary component of revenue expenditure in respect of water supply, sanitation, housing and urban development has in fact been very small (5 percent in 2015-16), but it accounted for a large share of total revenue expenditure in respect of health and family welfare (40 percent in 2015-16), though it has been reducing over the years. The total revenue expenditure on social services has increased from Rs 18,729 crore in 2011-12 to Rs 35,943 crore in 2015-16, growing at an annual rate of 18 percent. In 2016-17, it is estimated to rise to Rs 47,147 crore, an increase of 31 percent over the previous year. The total capital outlay on social services increased from Rs. 807 crore in 2011-12 to Rs. 2740 crore in 2015-16. In 2016-17 budget, it has been projected to increase sharply to Rs 3924 crore, mostly due to increases of over Rs 1000 crore each in capital outlay on education and water supply, sanitation etc. The capital outlay on health and family welfare is expected to be reduced by Rs 166 crore to Rs 925 crore during 2016-17.

### Expenditure on Economic Services

Table 2.45 shows the expenditure on economic services, which creates additional productive capacity in the economy. Agriculture and allied activities, irrigation and flood control, energy and power, industry and minerals and transport together accounted for nearly 60 percent of the total expenditure on economic services in 2015-16, considering both revenue and capital accounts. About 47 percent of the total expenditure on economic services was made on capital account in 2015-16, nearly the same as in year before. The capital outlay in respect of economic services increased substantially from Rs 7437 crore (2011-12) to Rs 17,609 crore (2015-16). It had increased steadily during the last few years and was more than 73 percent of the total capital outlay of Rs 23,966 crore in 2015-16. Out of the total capital outlay on economic services, transport had taken the largest share (Rs 4417 crore), followed by energy and power (Rs 2794 crore) and irrigation and flood control (Rs 1685 crore) in 2015-16. The non-salary component of the revenue expenditure in economic services, as in the case of social services, also remained high throughout the period and was 89 percent during 2015-16. The salary component was high only in respect of irrigation and flood control, accounting for nearly 57 percent of the total expenditure on irrigation and flood control during 2015-16, much lower than 78 percent in 2014-15.

**Table 2.45 : Expenditure on Economic Services**

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
<b>Agriculture and Allied Activities</b>						
Total Expenditure (Rs. crore)	2032	3262	3670	3615	4120	4276
Revenue Expenditure (Rs. crore)	1914	3170	3193	3431	3515	4032
(a) Salary component (%)	23.8	14.8	14.9	14.4	14.6	16.3
(b) Non-salary component (%)	76.2	85.2	85.1	85.6	85.4	83.7
Capital Outlay (Rs. crore)	117	92	477	185	605	244
Capital Outlay (%)	5.8	2.8	13.0	5.1	14.7	5.7
<b>Irrigation and Flood Control</b>						
Total Expenditure (Rs. crore)	3275	2854	2838	2444	2836	2847
Revenue Expenditure (Rs. crore)	1311	914	1039	1020	1151	1152
(a) Salary component (%)	47.2	65.9	56.3	58.0	57.0	59.8
(b) Non-salary component (%)	52.8	34.1	43.7	42.0	43.0	40.2
Capital Outlay (Rs. crore)	1964	1940	1799	1424	1685	1695
Capital Outlay (%)	60.0	68.0	63.4	58.3	59.4	59.5
<b>Energy and Power</b>						
Total Expenditure (Rs. crore)	2270	3374	5133	7948	8945	13930
Revenue Expenditure (Rs. crore)	2168	3200	3236	3773	6151	5347
(a) Salary component (%)	0.0	0.0	0.0	0.0	0.0	0.0
(b) Non-salary component (%)	100.0	100.0	100.0	100.0	100.0	100.0
Capital Outlay (Rs. crore)	102	174	1897	4175	2794	8583
Capital Outlay (%)	4.5	5.1	37.0	52.5	31.2	61.6
<b>Transport</b>						
Total Expenditure (Rs. crore)	4852	4138	5471	5194	6130	7724
Revenue Expenditure (Rs. crore)	789	826	1381	996	1712	2056
(a) Salary component (%)	23.3	24.6	15.4	22.8	13.9	14.2
(b) Non-salary component (%)	76.7	75.4	84.6	77.2	86.1	85.8
Capital Outlay (Rs. crore)	4064	3313	4090	4198	4417	5668
Capital Outlay (%)	83.7	80.1	74.8	80.8	72.1	73.4
<b>Industry and Minerals</b>						
Total Expenditure (Rs. crore)	429	583	1115	564	1230	1075
Revenue Expenditure (Rs. crore)	363	534	580	561	1201	965
(a) Salary component (%)	14.0	10.6	11.0	11.1	5.2	8.9
(b) Non-salary component (%)	86.0	89.4	89.0	88.9	94.8	91.1
Capital Outlay (Rs. crore)	66	49	535	3	29	110
Capital Outlay (%)	15.4	8.4	48.0	0.5	2.4	10.2
<b>Total (Economic Services)</b>						
Total Expenditure (Rs. crore)	17475	20246	24871	29173	37305	49828
Revenue Expenditure (Rs. crore)	10038	12710	14060	14445	19696	26605
(a) Salary component (%)	18.7	15.2	14.6	14.6	11.2	10.2
(b) Non-salary component (%)	81.3	84.8	85.4	85.4	88.8	89.8
Capital Outlay (Rs. crore)	7437	7536	10811	14728	17609	23223
Capital Outlay (%)	42.6	37.2	43.5	50.5	47.2	46.6

Source : State Government Budgets

## 2.14 Per Capita Expenditure on Social and Economic Services

Tables 2.46 shows the per capita expenditure on social and economic services for the years 2011-12 to 2015-16 and also for the budget estimates of 2016-17. During this period, the per capita expenditure on social services increased from Rs 1801 to Rs 3157, and the increase in economic services was also high (from Rs 965 to Rs 1730). The per capita capital outlay also increased from Rs 851 to Rs 2105 during this period.

**Table 2.46 : Per Capita Expenditure on Social and Economic Services**

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE
Estimated Population (crore)	10.4	10.6	10.9	11.1	11.4	11.6
<b>Total Expenditure (Rs. crore)</b>						
Education, Sports & Culture	10157	14080	14344	16267	18605	21770
Medical and Public Health	1804	1836	2113	3288	3481	6793
Water Supply and Sanitation	1713	2304	2967	3639	3694	5894
Social Services	18729	23107	26395	31713	35943	47147
Economic Services	10038	12710	14060	14445	19696	26605
Capital Outlay	8852	9585	14001	18150	23966	30107
General Services	17730	18645	22018	26408	27972	36185
<b>Per Capita Expenditure (Rs.)</b>						
Education, Sports & Culture	977	1324	1318	1461	1634	1869
Medical and Public Health	173	173	194	295	306	583
Water Supply and Sanitation	165	217	273	327	324	506
Social Services	1801	2172	2426	2849	3157	4048
Economic Services	965	1195	1292	1298	1730	2284
Capital Outlay	851	901	1287	1631	2105	2585
General Services	1705	1753	2023	2372	2457	3107

Source : State Government Budgets

## 2.15 Comparison of Budget Estimates of 2016-17 and Actual Amounts of 2015-16

In this section, the budget estimates of 2016-17 will be compared with the actual receipts and expenditure of the state government during 2015-16. The accounts for 2015-16 showed a surplus of Rs. 2197 crore in the Consolidated Fund of the state government, while the budget for 2016-17 shows a reduced surplus of Rs. 1166 crore. From Table 2.47, it can be seen that revenue receipts and revenue expenditure are estimated to go up by nearly Rs 28,467 crore and Rs 26,325 crore respectively in 2016-17, compared to the previous year. The estimated revenue surplus in 2016-17 will be Rs. 14,649 crore, much higher than the revenue surplus of Rs. 12,507 crore in 2015-16.

Table 2.47 : Summary of Actual Amounts (2015-16) and Budget Estimates (2016-17)

(Rs. crore)

	2015-16 (Actuals)	2016-17 BE		2015-16 (Actuals)	2016-17 BE
<b>Revenue Account</b>			<b>Capital Account</b>		
<b>Receipts</b>			<b>Receipts</b>		
Tax revenues	74372	88090	Public Debt	18383	21255
Non-Tax Revenues	2186	2358	Recovery of Loans and Advances	19	17
Grants and Contributions	19566	34142			
<b>Total Revenue Receipts</b>	<b>96123</b>	<b>124590</b>	<b>Total Capital Receipts</b>	<b>18402</b>	<b>21272</b>
<b>Expenditure</b>			<b>Expenditure</b>		
General Services	27972	36185	Capital Outlay	23966	30107
Social Services	35943	47147	Public Debt	4125	4074
Economic Services	19696	26605	Loans & advances	621	574
Grants and Contributions	4	5			
<b>Total Revenue Expenditure</b>	<b>83616</b>	<b>109941</b>	<b>Total Capital Expenditure</b>	<b>28712</b>	<b>34755</b>
<b>Deficit Revenue A/c</b>	<b>-12507</b>	<b>-14649</b>	<b>Deficit Capital Account</b>	<b>10311</b>	<b>13483</b>
<b>Consolidated Fund Receipts</b>	<b>114525</b>	<b>145863</b>	<b>Consolidated Fund Expenditure</b>	<b>112328</b>	<b>144696</b>
<b>Net Consolidated Fund (Receipt-Expenditure)</b>	<b>2197</b>	<b>1166</b>			
<b>Contingency Fund</b>					
Income			Expenditure		
<b>Contingency Fund Total</b>			<b>Contingency Fund Total</b>		
<b>Public Account</b>			<b>Public Account</b>		
<b>Receipts</b>			<b>Disbursements</b>		
Small Savings, PF etc.	1203	1336	Small Savings, PF etc.	1277	1618
Reserve Funds	1761	1054	Reserve Funds	2162	1054
Deposits and Advances	34894	19750	Deposits and Advances	31162	20703
Suspense and Misc.	235534	0	Suspense and Misc.	240780	0
Remittances	10619	0	Remittances	10613	0
<b>Total Receipts Public Account</b>	<b>284011</b>	<b>22140</b>	<b>Total Disbursements Public Account</b>	<b>285994</b>	<b>23375</b>
<b>Net Results Public Account (Receipt-Expenditure)</b>	<b>-1983</b>	<b>-1235</b>			
<b>Net Result (All Accounts) (Receipt-Expenditure)</b>	<b>214</b>	<b>-69</b>			

Source : State Government Budgets

In the capital account, the budget estimates for 2016-17 envisaged an increase of Rs 6043 crore in expenditure over 2015-16. The capital receipts were estimated to increase by only Rs 2870 crore, mainly from public debt (including loans from the market and NSSF), leaving a net deficit

in the capital account of Rs 13,483 crore in 2016-17. The repayment of loans during 2016-17 was estimated to decrease marginally by only Rs 51 crore, compared to 2015-16, and the lending by the state government was also estimated to go down by Rs 47 crore. The capital outlay was estimated to increase substantially by Rs 6141 crore. The deficit of Rs 13,483 crore in the capital account is estimated to be completely offset by the revenue surplus of Rs 14,649 crore, leaving a surplus of Rs 1166 crore in the budget. The Public Account is estimated to leave a net deficit of Rs 1235 crore, and the net results of all accounts would be a small deficit of Rs 69 crore in 2016-17 compared to a net deficit of Rs 214 crore in 2015-16.

**Table 2.48 : Percentage Distribution of Consolidated Fund – Receipts and Expenditure**

Receipts	2015-16 (Actuals)	2016-17 BE	Expenditure	2015-16 (Actuals)	2016-17 BE
Revenue Account			Revenue Account		
Tax Revenue	74372	88090	General Services	27972	36185
Non-Tax Revenue	2186	2358	Social Services	35943	47147
Grants-in-Aid and Contributions	19566	34142	Economic Services	19696	26605
			Grants-in-Aid	4	5
Capital Account			Capital Account		
Public Debt	18383	21255	Discharge of Public Debt	4125	4074
Recovery of Loans and Advances	19	17	Loans and Advances	621	574
Inter State Settlement	0	0	Capital Outlay	23966	30107
Total	114525	145863	Total	112328	144696

Source : State Government Budgets

The structures of receipts and expenditure of the state government are presented in Table 2.48. From this table, it can be seen that, besides some variations in respect of the inter-se shares of grants and tax revenues, there was a structural change in the composition of receipts on accounts of grants-in-aid and tax revenue. The tax revenue accounted for 60 percent of the total receipts in 2016-17, as against 65 percent in the previous year. While the share of non-tax revenue showed very little variation during 2016-17, that of public debt was expected to go down by 1 percent to 15 percent. The share of central government grants is likely to increase substantially from 17 percent in 2015-16 to 21 percent in 2016-17.

The structure of expenditure also remained practically the same in these two years. While the share of general services in total expenditure was 25 percent in both these years, that of social services was 33 percent in 2016-17 budget estimates and 32 percent in 2015-16. The share of economic services remained the same at 18 percent in both these years, and that of capital outlay

also remained unchanged at 21 percent. The share of public debt decreased by 1 percent to 3 percent in 2016-17 budget estimates.

## 2.16 State Public Sector Undertakings and Corporations

### Government Investments in Public Sector

The public sector in Bihar presently comprises 70 government companies and 3 statutory corporations. However, of the 70 government companies, only 30 are working. The total investment by the state government in public sector units, as of March 2015, is shown in Table 2.49. Such investments amounted to Rs 33,784 crore till March 2015 (Rs 21,543 crore as equity and Rs 12,241 crore as long term loans). Of these, Rs 729 crore (Rs 181 crore as equity and Rs 548 crore as long term loans) were invested in non-working companies (Table 2.50).

**Table 2.49 : State Government Investment in Public Sector**

As on 31 <sup>st</sup> March	Number of Working PSUs	Number of Non-Working PSUs	Statutory Corporations	Public Sector Companies/ Corporations	Equity (Rs crore)	Loans (Rs crore)	Investment (Rs crore)
2009	19	40	4	63	526	8615	9,141
2010	21	40	4	65	585	9037	9,622
2011	21	40	4	65	625	10,240	10,865
2012	22	40	4	66	633	11,741	12,374
2013	28	40	3	71	3743	4579	8,322
2014	30	40	3	73	18323	9898	28,221
2015	30	40	3	73	21542	12242	33,783

Source : Audit Reports on Public Sector Undertakings of the Comptroller and Auditor General of India

**Table 2.50 : Investment in Working and Non-Working Public Sector Companies (March 31, 2015)**

(Rs crore)

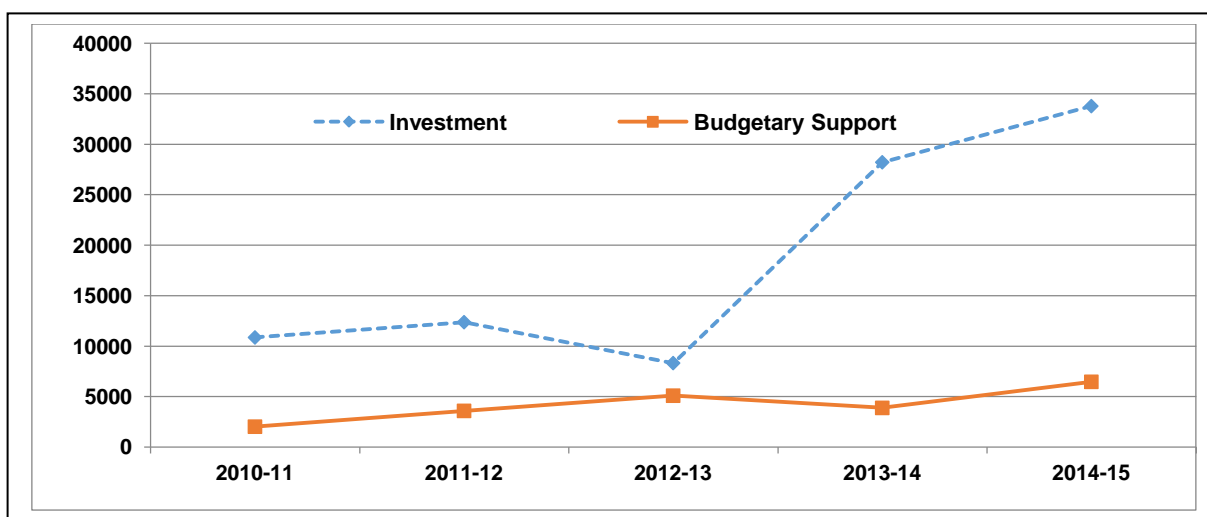
Type of Company/ corporation	Government Companies			Statutory Corporations			Grand Total
	Capital	Long Term Loans	Total	Capital	Long Term Loans	Total	
Working	21176	10917	32093	186	776	962	33055
Non-Working	181	548	729	-	-	-	729
Total	21357	11465	32822	186	776	962	33784

Source : Audit Reports on Public Sector Undertakings of the Comptroller and Auditor General of India

The investments increased significantly only during 2013-14. The total investments till 2012-13 stood at Rs 8322 crore, almost at the same level of 2007-08. The massive increase during 2013-

14 by almost Rs 20,000 crore was, however, a notional increase only due to the inclusion of the assets of the erstwhile Bihar State Electricity Board which had since been unbundled into five separate companies and the release of the state government's budgetary support to these entities (Chart 2.6).

**Chart 2.6 : Investment in Public Sector (Rs. crore)**



The sector-wise break-up of the public sector units as at the end of March 2015 is presented in Table 2.51. The majority of the working companies belong to power, infrastructure and financial sectors (total 19 companies). Agriculture, Manufacturing, Services and others accounted for remaining 11 working companies.

**Table 2.51 : Sector-wise Government Companies and Corporations (2014-15)**

Sector	Number of Statutory Corporations	Number of Working Companies	Number of Non-Working Companies
Agriculture	0	3	12
Power	0	9	0
Infrastructure	0	6	1
Manufacturing	0	3	12
Services	2	3	1
Finance	1	4	4
Others	0	2	10
<b>Total</b>	<b>3</b>	<b>30</b>	<b>40</b>

Source : Audit Report on Public Sector Undertakings of the CAG, India

Of the 40 non-working companies, 10 are under liquidation process, as their continuance may not serve any useful purpose. Of these, 7 companies have been under liquidation process for the



last 14 years. No company could be wound up during the year. The overall net loss of the working companies stood at Rs 2594 crore in 2011-12, after which they earned meagre profits of Rs 1 crore and Rs 37 crore during 2012-13 and 2013-14 respectively. This was due to the impact of unbundling of erstwhile Bihar State Electricity Board into five companies. However, there was a loss of Rs 37 crore again in 2014-15.

During 2014-15, out of 33 working companies, 16 companies had earned profit of Rs 427 crore and 12 companies incurred losses of Rs 464 crore. Of the remaining five, three companies had nil profit/loss and two companies had not finalised its first accounts as of September, 2015. The major contributors of profit were Bihar State Beverages Corporation Limited (Rs 133 crore), Bihar Rajya Pul Nirman Nigam Limited (Rs 107 crore), Bihar State Educational Infrastructure Development Corporation Limited (Rs 73 crore) and Bihar State Road Development Corporation Limited (Rs 59 crore). The loss-incurring companies were South Bihar Power Distribution Company Limited (Rs 269 crore), North Bihar Power Distribution Company Limited (Rs 74 crore) and Bihar State Road Transport Corporation (Rs 59 crore) as per their latest finalised accounts.

Among the public sector units in Bihar, investment is mainly focused on the power sector, which accounted for about 82 percent of the total state government investment in public sector undertakings at the end of 2014-15. The investment in this sector had increased from Rs 23,534 crore in 2013-14 to Rs 27,668 crore in 2014-15. The services sector accounted for 14 percent of the total investment (Rs 4001 crore).

As of March 2015, the Public Sector Undertakings in Bihar employed 17,281 employees — Working Companies (15,890) and Non-Working Companies (1391). Their total accumulated debt amounted to Rs 12,242 crore at the end of 2014-15, compared to Rs 9898 crore in 2013-14.

# APPENDIX

**Table A 2.1 : Act-wise / Circle-wise Collection 2014-15 and 2015-16**

(Rs. lakh)

Division / Circle	VAT		C.S.T		ENT. Tax		E.D.		ADV Tax	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Patna Special	400694	506187	2136	1716	0	0	37233	29669	0	0
Patliputra	129092	156711	1362	833	3274	4203	0	0	0	0
<b>Central Division</b>	<b>529786</b>	<b>662898</b>	<b>3498</b>	<b>2548</b>	<b>3274</b>	<b>4203</b>	<b>37233</b>	<b>29669</b>	<b>0</b>	<b>0</b>
Patna West	16626	17448	65	83	218	198	0	0	39	24
Patna Central	11764	13807	217	175	0	3	0	0	18	18
Patna North	14993	14792	67	92	96	165	0	0	0	2
Gandhi Madan	7555	9194	172	159	49	123	0	0	11	23
Patna South	16767	18916	114	108	2	1	0	0	3	3
Kadam Kuan	8677	11495	48	49	0	0	0	0	0	0
Patna City East	16035	20702	140	109	1	1	0	0	0	0
Patna City West	14935	20218	239	260	15	18	0	0	0	0
Danapur	28422	38118	123	164	22	19	0	0	0	0
Barh	13440	5962	110	66	12	10	0	0	0	0
Shahabad	5109	7482	18	39	23	16	0	0	0	0
Buxar	2359	2209	9	19	17	18	0	0	0	0
Biharshariff	5815	7995	12	25	35	35	0	0	0	0
<b>Patna Division</b>	<b>162497</b>	<b>188336</b>	<b>1332</b>	<b>1349</b>	<b>489</b>	<b>609</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>69</b>
Sasaram	9872	10898	195	71	17	14	0	0	0	0
Bhabhua	6512	5953	156	272	5	5	0	0	0	0
Gaya	12318	13980	182	168	58	56	0	0	0	0
Jehanabad	2796	2813	1	1	1	0	0	0	0	0
Nawada	3442	4592	1	5	17	16	6	7	0	1
Aurangabad	5634	5591	61	54	13	20	0	0	0	0
<b>Gaya Division</b>	<b>40573</b>	<b>43826</b>	<b>596</b>	<b>571</b>	<b>111</b>	<b>111</b>	<b>6</b>	<b>7</b>	<b>0</b>	<b>1</b>
Saran	4541	5029	4	6	24	25	0	0	0	0
Siwan	5571	8171	20	19	16	14	0	0	0	0
Gopalganj	5296	5166	22	7	14	14	0	0	0	0
Hajipur	15512	19748	266	271	62	54	0	0	0	0
<b>Saran Division</b>	<b>30920</b>	<b>38114</b>	<b>313</b>	<b>304</b>	<b>115</b>	<b>107</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
Muzaffarpur West	11608	13615	160	66	18	24	2	2	0	0
Muzaffarpur East	6892	8828	108	88	42	27	1	1	0	0
Sitamarhi	5550	6633	20	16	51	58	0	0	0	0
Motihari	6891	8928	22	27	40	37	0	0	0	0
Raxaul	1166	1324	19	21	11	12	0	0	0	0
Bettiah	5318	4496	21	27	25	33	7	4	0	0
Bagaha	1218	1820	31	22	11	8	0	0	0	0
<b>Tirhut Division</b>	<b>38644</b>	<b>45644</b>	<b>382</b>	<b>266</b>	<b>199</b>	<b>199</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>0</b>
Darbhanga	9120	10827	50	18	55	34	0	0	0	0
Samastipur	7197	7150	320	303	30	26	9	8	2	1
Madhubani	4217	6697	3	5	30	24	0	0	0	0
Janjharpur	1124	1313	1	1	0	0	1	0	0	0
Begusarai	5768	7389	90	83	26	24	1	1	0	0
Teghara	649	962	45	75	7	4	0	0	0	0
<b>Darbhanga Division</b>	<b>28075</b>	<b>34339</b>	<b>509</b>	<b>485</b>	<b>147</b>	<b>112</b>	<b>10</b>	<b>9</b>	<b>2</b>	<b>1</b>
Saharsa	5838	5907	15	7	30	23	0	0	0	0
Madhepura	2768	3204	1	5	10	6	0	0	0	0
Purnea	8204	12074	149	173	56	43	0	0	0	0
Katihar	6544	6528	31	57	34	27	0	0	0	0
Forbesganj	3404	4115	35	50	15	17	0	0	0	0
Kishanganj	2757	3412	122	47	9	7	0	0	0	0
Khagaria	2365	2787	14	11	7	6	0	0	0	0
Supaul	-	1788	-	1	-	8	-	0	-	0
<b>Purnea Division</b>	<b>31880</b>	<b>39814</b>	<b>366</b>	<b>350</b>	<b>161</b>	<b>137</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Bhagalpur	9787	11283	53	72	51	50	12	2	0	0
Lakhisarai	1982	2279	17	29	5	5	0	0	0	0
Munger	2963	3038	9	14	1	1	45	39	0	0
Jamui	2514	3038	30	36	3	3	0	0	0	0
<b>Bhagalpur Division</b>	<b>17246</b>	<b>19638</b>	<b>109</b>	<b>152</b>	<b>60</b>	<b>59</b>	<b>57</b>	<b>41</b>	<b>0</b>	<b>0</b>
<b>State</b>	<b>879621</b>	<b>1072609</b>	<b>7104</b>	<b>6024</b>	<b>4555</b>	<b>5537</b>	<b>37315</b>	<b>29733</b>	<b>73</b>	<b>71</b>

(Contd....)

Table A 2.1 : Act-wise / Circle-wise Collection 2014-15 and 2015-16 (Contd.)

(Rs. lakh)

Division / Circle	LUX Tax		Entry Tax		Professional Tax		Total		Target	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Patna Special	0	0	186870	231818	85	241	627017	769631	732549	927746
Patliputra	0	0	62567	73267	126	121	196422	235135	238374	294171
<b>Central Division</b>	<b>0</b>	<b>0</b>	<b>249436</b>	<b>305085</b>	<b>211</b>	<b>362</b>	<b>823438</b>	<b>1004765</b>	<b>970923</b>	<b>1221917</b>
Patna West	275	309	2553	2816	570	588	20346	21465	24652	29487
Patna Central	67	39	4224	6171	169	210	16459	20424	23862	24013
Patna North	73	69	3526	4329	259	310	19014	19759	25839	27805
Gandhi Madan	129	154	2709	3756	123	153	10748	13564	11542	15974
Patna South	8	7	7925	8726	57	84	24875	27845	29057	36650
Kadam Kuan	12	11	2059	2283	19	25	10816	13863	10946	15612
Patna City East	0	0	7919	10115	7	16	24103	30942	25640	36229
Patna City West	7	7	4152	5077	28	50	19375	25630	24637	28294
Danapur	2	8	4940	4871	137	177	33646	43357	41572	51316
Barh	3	1	4689	11740	41	49	18294	17827	38225	30958
Shahabad	8	13	1327	1541	48	135	6533	9226	7762	9506
Buxar	0	1	282	330	68	109	2736	2686	3303	3918
Biharshariff	39	38	1171	1072	160	161	7232	9327	8008	10390
<b>Patna Division</b>	<b>624</b>	<b>657</b>	<b>47476</b>	<b>62829</b>	<b>1687</b>	<b>2066</b>	<b>214175</b>	<b>255914</b>	<b>275045</b>	<b>320151</b>
Sasaram	3	4	1942	1996	124	142	12152	13124	14945	17910
Bhabhua	4	3	877	1053	49	67	7602	7352	9043	11420
Gaya	271	231	3686	4309	206	239	16720	18983	21514	24061
Jehanabad	0	0	109	155	82	99	2989	3068	3134	4151
Nawada	1	1	705	853	69	84	4242	5559	4593	6122
Aurangabad	8	7	12792	22369	96	120	18604	28161	24172	27717
<b>Gaya Division</b>	<b>286</b>	<b>247</b>	<b>20112</b>	<b>30734</b>	<b>626</b>	<b>751</b>	<b>62309</b>	<b>76247</b>	<b>77401</b>	<b>91382</b>
Saran	4	4	912	2975	217	267	5702	8306	7101	8181
Siwan	2	13	1547	1564	90	87	7247	9868	7502	10485
Gopalganj	2	2	1142	1354	74	84	6550	6627	7325	9530
Hajipur	1	1	3505	3970	155	151	19501	24195	26177	28844
<b>Saran Division</b>	<b>9</b>	<b>19</b>	<b>7106</b>	<b>9863</b>	<b>535</b>	<b>590</b>	<b>38999</b>	<b>48997</b>	<b>48104</b>	<b>57040</b>
Muzaffarpur West	26	18	8078	9026	242	190	20133	22942	25095	29097
Muzaffarpur East	8	9	2229	3101	115	118	9396	12171	12079	13731
Sitamarhi	2	3	853	1165	98	129	6574	8004	11568	9533
Motihari	4	5	1751	3899	110	141	8818	13036	10197	12794
Raxaul	0	0	178	288	13	19	1387	1665	1524	1998
Bettiah	6	8	1007	1013	93	97	6478	5677	8859	9389
Bagaha	0	0	39	35	23	36	1323	1922	2358	1960
<b>Tirhut Division</b>	<b>46</b>	<b>43</b>	<b>14136</b>	<b>18528</b>	<b>694</b>	<b>730</b>	<b>54109</b>	<b>65417</b>	<b>71681</b>	<b>78502</b>
Darbhanga	10	11	2259	3846	143	179	11636	14914	13062	16714
Samastipur	4	1	1924	4656	205	248	9691	12394	10589	14020
Madhubani	2	4	766	814	79	93	5097	7637	5588	7390
Janjharpur	0	0	26	41	33	38	1184	1393	1329	1685
Begusarai	5	5	68663	140093	132	137	74683	147733	122693	207508
Teghara	1	2	479	293	7	20	1188	1356	1317	1736
<b>Darbhanga Division</b>	<b>23</b>	<b>23</b>	<b>74117</b>	<b>149742</b>	<b>597</b>	<b>716</b>	<b>103479</b>	<b>185427</b>	<b>154579</b>	<b>249052</b>
Saharsa	8	6	516	3664	130	105	6537	9711	7678	9464
Madhepura	2	3	486	730	54	65	3321	4012	3585	4801
Purnea	8	22	5319	6372	95	101	13832	18787	17215	20195
Katihar	12	14	1556	1525	122	161	8299	8311	10568	12001
Forbesganj	2	4	714	838	57	77	4227	5101	4674	6110
Kishanganj	2	2	1366	1344	41	53	4298	4865	5796	6233
Khagaria	1	1	376	352	76	85	2839	3241	3435	4094
Supaul	-	0	-	29	-	51	0	1878	-	0
<b>Purnea Division</b>	<b>35</b>	<b>51</b>	<b>10333</b>	<b>14853</b>	<b>576</b>	<b>699</b>	<b>43351</b>	<b>55905</b>	<b>52951</b>	<b>62898</b>
Bhagalpur	24	24	14763	21214	267	322	24956	32966	46483	40533
Lakhisarai	1	1	488	435	68	78	2560	2826	2675	3669
Munger	3	2	2391	2639	188	200	5600	5935	6494	8242
Jamui	1	2	260	284	47	60	2857	3423	3663	4114
<b>Bhagalpur Division</b>	<b>28</b>	<b>29</b>	<b>17903</b>	<b>24572</b>	<b>571</b>	<b>659</b>	<b>35972</b>	<b>45150</b>	<b>59315</b>	<b>56558</b>
<b>State</b>	<b>1051</b>	<b>1070</b>	<b>440619</b>	<b>616205</b>	<b>5496</b>	<b>6573</b>	<b>1375834</b>	<b>1737822</b>	<b>1710000</b>	<b>2137500</b>

Source : Department of Commercial Tax, GOB

(Concluded)

Table A 2.2 : Act-wise / Circle-wise Collection 2016-17 (Up to September 2016)

(Rs. lakh)

Division / Circle	VAT	C.S.T	ENT. Tax	E.D.	ADV Tax	LUX Tax	Entry Tax	P. Tax	Total	Target
Patna Special	227591	840	0	8124	0	0	95332	28	331916	429776
Patliputra	49809	312	1825	0	0	0	31370	12	83329	105160
<b>Central Division</b>	<b>277400</b>	<b>1153</b>	<b>1825</b>	<b>8124</b>	<b>0</b>	<b>0</b>	<b>126702</b>	<b>41</b>	<b>415244</b>	<b>534936</b>
Patna West	7234	66	180	0	5	84	1433	42	9045	11748
Patna Central	6992	63	94	0	10	18	3050	27	10255	10924
Patna North	6726	56	141	0	2	22	2142	10	9099	13938
Gandhi Maidan	3976	71	47	0	10	48	2194	11	6355	7371
Patna South	9593	49	0	0	3	4	4040	12	13701	15853
Kadamkua	4721	48	0	0	0	4	1281	3	6057	7132
Patna City East	5658	41	1	0	0	0	4482	1	10183	11466
Patna City West	7763	129	9	0	0	4	2529	3	10437	10608
Danapur	2646	61	9	0	0	4	1911	131	4763	6300
Barh	946	20	5	0	0	0	4926	3	5901	8555
Shahabad	2557	22	8	0	0	4	702	12	3305	4952
Buxar	1043	6	9	0	0	1	162	5	1226	1360
Biharsharif	2283	8	17	0	0	4	572	3	2888	3957
<b>Patna Division</b>	<b>62141</b>	<b>641</b>	<b>520</b>	<b>0</b>	<b>30</b>	<b>195</b>	<b>29423</b>	<b>264</b>	<b>93214</b>	<b>114163</b>
Sasaram	3995	34	4	0	0	4	1419	4	5460	7739
Bhabhua	2272	29	2	0	0	1	351	8	2663	4636
Gaya	6123	132	30	0	0	43	2002	8	8339	9228
Jehanabad	1386	0	0	0	0	0	105	3	1494	1560
Nawada	1659	8	10	0	0	1	476	10	2164	2363
Aurangabad	3129	14	12	1	0	1	11133	9	14298	16465
<b>Gaya Division</b>	<b>18564</b>	<b>217</b>	<b>57</b>	<b>1</b>	<b>0</b>	<b>50</b>	<b>15487</b>	<b>42</b>	<b>34417</b>	<b>41991</b>
Saran	2494	3	11	0	0	3	1602	4	4116	4960
Siwan	2729	6	5	0	0	1	922	5	3669	3842
Gopalganj	2270	8	4	0	0	1	665	4	2952	3525
Hajipur	9329	113	20	0	0	1	2092	17	11572	12314
<b>Saran Division</b>	<b>16822</b>	<b>131</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>5280</b>	<b>30</b>	<b>22310</b>	<b>24641</b>
Muzaffarpur West	6838	39	22	1	0	5	4110	34	11050	17068
Muzaffarpur East	3210	37	33	0	0	3	1979	20	5282	5708
Sitamarhi	2674	11	27	0	0	1	617	18	3347	4132
Motihari	2418	10	18	0	0	3	2745	11	5205	6687
Raxaul	553	15	5	0	0	0	187	1	761	949
Bettiah	1950	8	4	1	0	3	551	3	2520	2889
Bagaha	655	31	5	0	0	0	26	1	718	1207
<b>Tirhut Division</b>	<b>18298</b>	<b>150</b>	<b>115</b>	<b>2</b>	<b>0</b>	<b>16</b>	<b>10215</b>	<b>87</b>	<b>28883</b>	<b>38640</b>
Darbhanga	4494	10	17	0	0	7	2129	17	6675	7973
Samastipur	4085	100	11	7	1	0	1733	4	5942	7364
Madhubani	1880	1	11	0	0	2	592	5	2491	3040
Janjharpur	506	2	0	0	0	0	19	3	530	783
Begusarai	2330	13	12	0	0	1	15799	6	18162	28053
Teghara	405	43	3	0	0	1	215	4	671	835
<b>Darbhanga Division</b>	<b>13700</b>	<b>169</b>	<b>54</b>	<b>8</b>	<b>1</b>	<b>11</b>	<b>20489</b>	<b>40</b>	<b>34470</b>	<b>48049</b>
Saharsa	1885	0	10	0	0	3	2061	3	3962	4763
Madhepura	1606	3	2	0	0	2	376	4	1993	2390
Purnea	4898	102	22	0	0	4	3366	38	8429	8672
Katihar	2911	6	11	0	0	6	806	17	3758	4746
Forbesganj	1933	28	9	0	0	2	489	4	2465	2809
Kishanganj	2107	25	3	0	0	1	673	4	2812	2841
Khagaria	1617	10	2	0	0	1	213	2	1845	1810
Supaul	1212	6	7	0	0	0	40	1	1266	1255
<b>Purnea Division</b>	<b>18168</b>	<b>180</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>8023</b>	<b>73</b>	<b>26529</b>	<b>29286</b>
Bhagalpur	5073	27	20	0	0	12	9015	28	14176	19418
Lakhisarai	1048	9	2	0	0	1	175	3	1238	1584
Munger	1080	7	1	31	0	1	1754	3	2877	3158
Jamui	1291	14	1	0	0	1	217	1	1526	1759
<b>Bhagalpur Division</b>	<b>8492</b>	<b>58</b>	<b>24</b>	<b>31</b>	<b>0</b>	<b>15</b>	<b>11161</b>	<b>36</b>	<b>19817</b>	<b>25920</b>
<b>State</b>	<b>433585</b>	<b>2697</b>	<b>2700</b>	<b>8165</b>	<b>31</b>	<b>312</b>	<b>226781</b>	<b>612</b>	<b>674884</b>	<b>857626</b>

Source : Department of Commercial Tax, GOB

**Table A 2.3 : District-wise No. of Document and Revenue from Stamp Duty and Registration Fees**

(Rs. crore)

District	No. of Document		Registration Fees		Stamp Fee		Total Receipt		Target	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Patna	66950	79112	119	142	406	488	526	631	780	677
Nalanda	26292	29250	16	18	53	59	69	78	97	89
Bhojpur	25843	27709	18	19	56	60	74	80	91	91
Buxar	13810	14426	11	11	32	33	42	44	56	53
Rohtas	15584	26480	19	21	54	62	73	83	87	87
Kaimur	14274	14156	8	8	23	23	31	31	38	39
Gaya	35380	38711	27	34	87	104	114	138	160	147
Jehanabad	9274	10194	6	7	21	23	27	30	33	32
Arwal	5237	5673	3	3	9	10	13	13	13	15
Nawadah	17003	18682	9	11	28	34	37	45	45	45
Aurangabad	23905	25048	15	17	45	51	60	68	75	75
Saran	34245	36704	20	23	56	67	76	90	92	95
Siwan	35083	35244	21	23	59	66	80	89	95	97
Gopalganj	29847	30793	18	21	53	61	72	81	83	86
West Champaran	42289	45640	18	20	50	58	68	78	90	86
East Champaran	62345	63728	34	40	95	114	129	153	158	155
Muzaffarpur	52436	58102	42	48	117	137	159	185	230	204
Sitamarhi	40244	39375	21	23	59	66	81	89	105	101
Sheohar	7390	7508	3	3	9	10	12	14	17	16
Vaishali	33632	36740	24	28	70	82	94	110	118	115
Darbhanga	34452	36876	23	25	66	75	89	100	115	110
Madhubani	44662	48077	22	24	60	67	82	91	100	99
Samastipur	46816	50032	22	25	66	72	88	97	96	108
Begusarai	25396	28037	20	22	60	69	79	91	106	102
Munger	7161	8438	7	8	20	26	27	34	32	34
Sheikhpura	7450	8340	3	3	9	11	12	14	14	15
Lakhisarai	8823	9575	5	6	16	19	21	25	25	28
Jamui	14529	15372	6	7	19	21	25	28	30	30
Khagaria	12486	12443	7	7	20	21	27	28	34	33
Bhagalpur	23660	27039	21	26	66	80	88	106	117	110
Banka	15295	17015	8	10	23	26	31	35	40	40
Saharsha	19224	19559	11	12	34	38	45	50	56	56
Supaul	22773	24527	10	11	27	31	37	42	36	41
Madhepura	18870	19179	10	11	27	33	37	44	46	45
Purnea	34841	33895	21	23	63	71	84	95	102	100
Kishanganj	25749	26915	9	9	27	29	36	38	42	45
Araria	33635	35906	14	15	40	42	54	57	62	66
Katihar	40573	38674	17	18	51	51	68	69	84	85
<b>Total</b>	<b>1027458</b>	<b>1103174</b>	<b>688</b>	<b>784</b>	<b>2080</b>	<b>2391</b>	<b>2768</b>	<b>3175</b>	<b>3600</b>	<b>3450</b>

Sources : Department of Registration, Excise and Prohibition, Government of Bihar;

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## CHAPTER III

### AGRICULTURE AND ALLIED SECTORS

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The erstwhile state of Bihar was bifurcated in November, 2000, and the present Bihar does not have any mineral resources. The state also lost the important industrial sector that went to present Jharkhand. Therefore, Bihar has got only an agricultural sector to rely upon. The base of Bihar's agriculture is its fertile soil and abundant water resources, particularly ground water. Because of its favourable agro-climatic conditions, Bihar produces a variety of crops, vegetables and fruits. Recently, the state is producing flower on a large scale for its domestic and outside market. The state government is stressing for higher agricultural growth with a variety of interventions for technological change. Agriculture Road Map II contains a number of programmes for ensuring higher productivity in agriculture. A strong monitoring system has been put in place to ensure effective implementation of those programmes. The rise in productivity has led to higher rate of growth of GSDP during the last decade. This rise has also led to higher generation of agricultural surplus during the recent years. This surplus has got invested in secondary and tertiary sectors, helping them to grow at high rates.

The total geographical area of 93.6 lakh hectares of Bihar has three distinct agro-climatic zones — North-West, North-East and South. The North-West zone has 13 districts. This zone receives an annual rainfall of 1040-1450 mms, and the soil here is mostly loam or sandy loam. The North-East zone has 8 districts and it receives rainfall ranging from 1200-1700 mms. The soil here is loam or clay loam. Finally, the South zone, having 17 districts, receives an average annual rainfall of 990-1300 mms. and the soil is sandy loam, loam, clay and clay loam. The status of agriculture and allied sectors is presented in this Chapter under the following major heads — Rainfall, Land Utilization, Production and Productivity, Irrigation, Agricultural Inputs, and Agricultural Credit. Under Allied Activities, the Chapter also discusses the performance in Animal Husbandry and Fishery sectors.

#### **3.1 Rainfall**

The amount of annual rainfall is very important for Bihar's agricultural economy, as around 89 percent of population is presently engaged in agriculture and associated activities. Fortunately, Bihar's water resources are indeed abundant, as it receives an average of 995 mm. of rainfall each year. This rainfall is largely due to south-west monsoon, which accounts for around 85 percent of the total rainfall in the state. The annual rainfall is reasonably adequate for the state's agricultural operations. However, only worrisome feature is the year-to-year variation in rainfall

which tends to create flood or draught-like situations in the state in some years. Apart from loss of human and animal lives, this causes serious damage to crop production, which affects the state economy in several ways.

During the period 2001 to 2015, the annual rainfall has varied from being 678 mms. in 2010 to 1506 mms. in 2007. The total rainfall has been substantially lower than the normal in 4 out of the last 5 years. The rainfall pattern of the state is presented in Table 3.1.

**Table 3.1 : Annual Rainfall for Different Seasons**

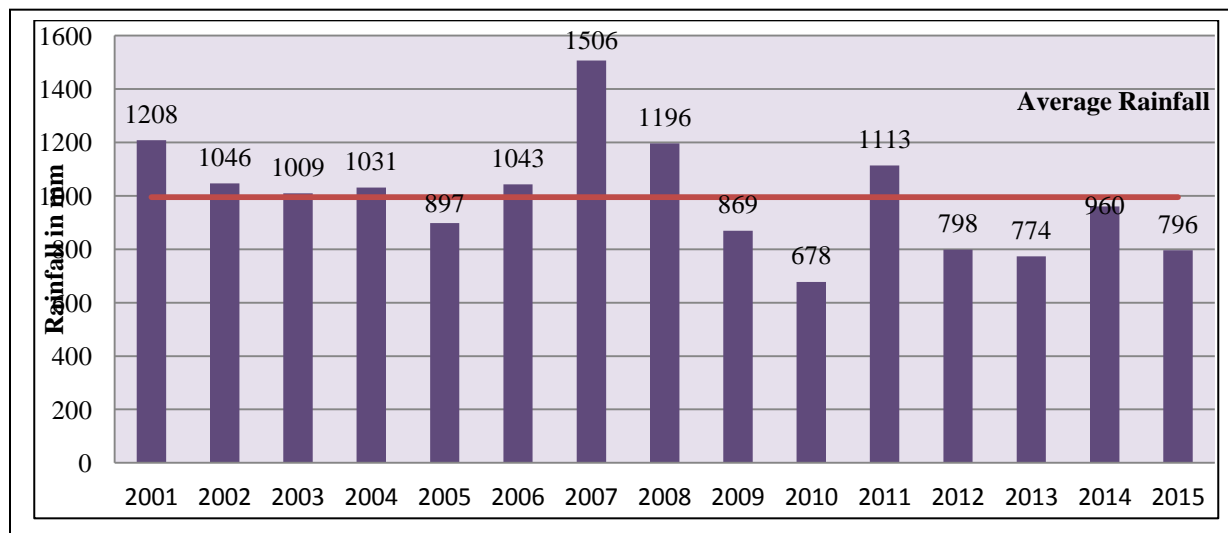
(Rainfall in mm)

Year	Winter Rain (Jan-Feb)	Hot-Weather Rain (March-May)	Southwest Monsoon (June-Sept)	Northwest Monsoon (Oct-Dec)	Total
2001	20.9 (125.1)	86.7 (115.9)	908.2 (107.8)	192.2 (317.2)	1208.0 (121.4)
2002	48.9 (292.8)	66.8 (89.3)	896.9 (106.4)	33.2 (54.8)	1045.8 (105.1)
2003	19.2 (115.0)	93 (124.3)	767.6 (91.1)	128.9 (212.7)	1008.7 (101.4)
2004	23.7 (141.9)	41.4 (55.3)	906.1 (107.5)	60.1 (99.2)	1031.3 (103.7)
2005	0.1 (0.6)	89.5 (119.7)	777.6 (92.3)	30.2 (49.8)	897.4 (90.2)
2006	0.1 (0.6)	90.0 (120.3)	925.9 (109.9)	27.8 (45.8)	1043.7 (104.9)
2007	28.3 (169.7)	76.4 (102.1)	1360.9 (161.5)	40.5 (66.8)	1506.1 (151.4)
2008	30.6 (183.3)	61.8 (82.6)	1084.3 (128.7)	19.3 (31.9)	1196.0 (120.2)
2009	0.1 (0.5)	98.2 (131.3)	699.2 (83.0)	71.1 (117.4)	868.6 (87.3)
2010	0.74 (4.4)	49.3 (65.9)	584.4 (69.3)	43.4 (71.6)	677.9 (68.1)
2011	5.2 (31.1)	79.4 (106.1)	1028.0 (122.0)	0.5 (0.8)	1113.1 (111.9)
2012	11.2 (67.1)	31.3 (41.8)	704.2 (83.6)	51.2 (84.5)	797.9 (80.2)
2013	17.1 (102.4)	73.8 (98.7)	518.4 (61.5)	164.3 (271.1)	773.6 (77.8)
2014	33.3 (199.4)	96.1 (128.5)	788.3 (93.5)	41.9 (69.1)	959.6 (96.5)
2015	11.7 (70.1)	89.3 (119.4)	690.7 (82.0)	4.3 (7.1)	796.0 (80.0)
2016 (Upto October)	7.5	72.6	937.0	54.5	1071.6
Average (2001-2015)	16.7	74.8	842.7	60.6	994.8

Note : Figures in parentheses denote actual rainfall as the percentage of average

Source : Directorate of Economics and Statistics, GOB

**Chart 3.1 : Annual Rainfall in Bihar**



The rainfall pattern in various districts of Bihar in 2015 and 2016 (up to October) can be observed from Table A 3.1 (Appendix). The annual rainfall varies from district to district, as they fall in different agro-climatic zones. Just as some parts of the state are draught-prone, other districts are flood-prone. In 2015, the state had about 14 percent deficit rainfall under south-west monsoon. From Table A3.1 (Appendix), it is observed that around 16 districts received less than the average rainfall. Nearly all the districts falling in South-Bihar plains received less than the average rainfall in 2015.

### 3.2 Land Utilisation

The proportion of total land put to agricultural use is high in Bihar, compared to other states of India. This is because of its topographical nature, as it falls in the riverine plains of the Ganga basin. Table 3.2 presents the land-use pattern in the state from 2009-10 to 2013-14. A glance at the data would reveal that this pattern has remained nearly the same over the years. The area under forests has remained unchanged at 6.6 percent and so has the area under permanent pastures at 0.2 percent. In 2009-10, net area sown was 57.0 percent and it has increased marginally to 57.7 percent in 2012-13. In 2013-14, it has again decreased to 56.1 percent. During this period, there has been an increase in gross sown area between 2009-10 (7295.81 thousand hectares) and 2013-14 (7580.14 thousand hectares). The cropping intensity has increased marginally from 1.37 in 2009-10 to 1.44 in 2013-14.



**Table 3.2 : Land Utilization Pattern**

(Area in '000 hectares)

Land Use	2009-10	2010-11	2011-12	2012-13	2013-14
Geographical Area	9359.57 (100.0)	9359.57 (100.0)	9359.57 (100.0)	9359.57 (100)	9359.57 (100)
(1) Forests	621.64 (6.6)	621.64 (6.6)	621.64 (6.6)	621.64 (6.6)	621.64 (6.6)
(2) Barren and Unculturable Land	431.72 (4.6)	431.72 (4.6)	431.72 (4.6)	431.72 (4.6)	431.72 (4.6)
(3) Land put to Non-agricultural use	1689.72 (18.1)	1699.74 (18.2)	1702.54 (18.2)	1708.37 (18.3)	1712.29 (18.3)
Land Area	1332.51 (14.2)	1342.69 (14.3)	1345.57 (14.4)	1352.89 (14.5)	1356.8 (14.5)
Water Area	357.21 (3.8)	357.05 (3.8)	356.97 (3.8)	355.48 (3.8)	355.49 (3.8)
(4) Culturable Waste	45.38 (0.5)	45.34 (0.5)	45.23 (0.5)	45.02 (0.5)	44.89 (0.5)
(5) Permanent Pastures	15.78 (0.2)	15.73 (0.2)	15.7 (0.2)	15.6 (0.2)	15.47 (0.2)
(6) Land under Tree Crops	243.98 (2.6)	244.56 (2.6)	244.57 (2.6)	246.34 (2.6)	247.36 (2.6)
(7) Fallow Land (excl. Current Fallow)	122.00 (1.3)	121.88 (1.3)	121.17 (1.3)	121.78 (1.3)	120.49 (1.3)
(8) Current Fallow	857.63 (9.2)	920.27 (9.8)	781.26 (8.3)	766.7 (8.2)	913.49 (9.8)
Total Unculturable Land (1 to 8)	4027.84 (43.0)	4100.87 (43.8)	3963.83 (42.4)	3957.17 (42.3)	4107.32 (43.9)
Net Sown Area	5331.73 (57.0)	5258.70 (56.2)	5395.75 (57.6)	5402.39 (57.7)	5252.25 (56.1)
Gross Sown Area	7295.81	7194	7646.76	7777.52	7580.14
Cropping Intensity	1.37	1.37	1.42	1.44	1.44

Note : The figures in parentheses denote percentage share in total geographical area

Source : Directorate of Economics and Statistics, GOB

The land-use pattern for different districts of Bihar for the latest year 2013-14 has been presented in Table A 3.2 (Appendix). An analysis of this data would indicate that the pattern of land use exhibits substantial variation across the districts, because of topographical variance. If one considers the net sown area of various districts in 2013-14, there exist 5 districts whose net sown area is more than 70 percent, whereas the average net sown area for the entire state is less than 60 percent. These districts are the valuable agrarian tract of Bihar — Buxar (82.7 percent), Bhojpur (75.7 percent), Siwan (76.1 percent), Gopalganj (72.6 percent) and Sheikhpura (72.0 percent). On the other hand, there are 8 districts where net sown area is less than 50 percent of its geographical area. These districts are — Jamui (14.9 percent), Gaya (26.1 percent), Munger (31.1 percent), Lakhisarai (36.3 percent), Banka (39.1 percent), Nawada (42.8 percent), Kaimur (45.6 percent) and Patna (47.4 percent). The cropping intensity is the highest in Saharsa, Sheohar and Araria, and it is the lowest in Sheikhpura, Arwal and Munger.

### Cropping Pattern

In Table 3.3, the cropping pattern in Bihar has been shown for the period from 2011-12 to 2015-16. The data reveals that the agricultural economy of Bihar is very much tilted in favour of the

subsistence sector, since the acreage under foodgrains has been more than 92 percent in all the years. During the last five years, the acreage under pulses has shown a decline, creating shortage of pulses with rising prices. For oilseeds also, there is a marginal fall. For sugarcane, the acreage has risen from 3.03 percent in 2011-12 to 3.46 percent in 2015-16.

**Table 3.3 : Cropping Pattern**

Crops	Percentage of Area				
	2011-12	2012-13	2013-14	2014-15	2015-16
Foodgrains	93.01	93.02	92.89	93.25	93.27
Cereals	85.73	85.90	85.80	86.14	86.18
Pulses	7.28	7.11	7.08	7.09	7.07
Oilseeds	1.85	1.59	1.74	1.63	1.69
Fibre Crops	2.11	1.94	1.71	1.58	1.58
Sugarcane	3.03	3.46	3.66	3.56	3.46
<b>Total Area</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source : Department of Agriculture, GOB

### 3.3 Production and Productivity

The fertility of soil along with abundant ground water resources help farmers of Bihar to produce a variety of crops, both food and non-food. Apart from major cereals and pulses, the cultivators also show immense interest in growing fibres, oilseeds, fruits and vegetables. Recently, they are also producing flowers on a large scale in response to increasing demand, both domestic and external.

In Table 3.4, the production levels of 34 most important crops have been presented for the period 2010-11 to 2015-16. The total cereals production in 2015-16 is 140.87 lakh tonnes, compared to 103.52 lakh tonnes in 2010-11. This increase is due a high increase in rice production. The rice production increased from a modest quantum of 31 lakh tonnes in 2010-11 to about 68 lakh tonnes in 2015-16, due to a technological change that has come up with the introduction of SRI (System of Rice Intensification) technique and zero tillage method in the same. In the realm of foodgrains, it is found that during the last 6 years, the quantum of cereal production has grown annually at 2.51 percent. This has enhanced the food security of population, particularly its marginalised section. The annual growth of wheat production was negative (-6.04 percent), whereas for maize, the annual growth rate was 2.45 percent. For fiber crops, the rate of growth worked out to be moderate at 2.70 percent. For sugarcane, the growth rate was satisfactory at 2.89 percent, compared to a negative trend seen in earlier decade.

**Table 3.4 : Production Levels of Major Crops**

(Production in '000 tonnes)

Crops	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
Total Cereals	10352.15	17363.65	17286.69	15716.30	14321.11	14087.25	2.51
Total Rice	3112.62	8237.98	8322.01	6649.59	8241.62	6802.22	11.11
Autumn Rice	444.04	914.23	960.01	798.68	1010.34	725.21	7.61
Aghani Rice	2505.54	7141.12	7076.17	5634.96	7049.73	5876.03	12.09
Summer Rice	163.03	182.63	285.83	215.95	181.56	200.98	2.16
Wheat	5094.03	6530.96	6174.26	6134.68	3570.21	4736.45	-6.04
Total Maize	2108.20	2557.06	2755.95	2904.24	2478.75	2517.10	2.45
Kharif Maize	468.52	622.42	926.32	778.21	825.15	692.70	7.79
Rabi Maize	922.29	1098.17	791.00	1199.39	913.78	1105.14	2.22
Summer Maize	717.39	836.47	1038.63	926.64	739.82	719.26	-1.33
Total Coarse Cereals	2145.50	2594.71	2790.42	2932.03	2509.28	2548.58	2.34
Barley	15.69	16.69	15.23	14.25	13.43	13.90	-3.71
Jowar	3.27	2.15	2.82	1.31	1.55	1.71	-13.29
Bajra	5.42	5.01	4.84	3.00	3.73	4.64	-5.93
Ragi	8.85	9.39	9.37	7.14	9.84	9.89	1.22
Small Millets	4.08	4.41	2.21	2.09	1.98	1.34	-20.50
Total Pulses	467.18	521.62	542.74	522.02	428.93	420.78	-3.23
Total Kharif Pulses	30.28	27.81	29.50	30.96	33.69	28.98	1.16
Urad	13.23	11.87	12.15	14.14	14.36	12.05	0.73
Bhadai Moong	6.08	4.70	7.18	7.36	9.23	8.34	10.93
Kulthi	9.32	8.23	7.75	7.83	7.96	7.21	-3.85
Ghagra	0.24	0.57	0.78	0.34	0.43	0.49	5.54
Other Kharif Pulses	1.41	2.45	1.64	1.29	1.71	0.89	-9.81
Total Rabi Pulses	436.91	493.81	513.25	491.06	395.24	391.80	-3.53
Arhar (Tur)	39.44	42.06	47.12	36.46	28.54	37.13	-4.80
Gram	59.38	76.82	86.19	70.34	57.49	58.55	-3.21
Lentil	162.22	171.61	183.24	196.06	140.06	140.44	-3.54
Pea	19.82	19.23	19.25	18.35	17.31	17.94	-2.42
Khesari	73.18	92.07	83.80	70.55	60.06	50.99	-8.89
Summer Moong	81.26	90.10	92.13	98.01	90.73	86.02	1.05
Other Rabi Pulses	1.62	1.93	1.53	1.30	1.05	0.73	-15.63
Total Oilseeds	142.24	174.47	182.73	157.18	127.01	126.52	-4.71
Castor seed	0.17	0.10	0.10	0.15	0.09	0.04	-17.60
Safflower (Kusum)	0.06	0.23	0.08	1.32	0.08	0.09	4.86
Sesamum	2.02	2.25	1.95	1.99	2.56	2.39	3.62
Sunflower	24.99	22.87	22.24	19.79	16.64	16.20	-8.83
Mustard/ Rapeseed	95.82	127.93	138.52	117.14	92.89	94.39	-3.38
Linseed	18.82	20.27	19.05	15.87	14.16	12.91	-8.60
Ground Nut	0.37	0.83	0.78	0.91	0.59	0.50	1.79
Total Fibre Crops	1309.41	1738.81	1717.73	1745.08	1637.12	1630.60	2.70
Jute	1164.59	1490.70	1490.24	1498.08	1418.71	1308.60	1.26
Mesta	144.82	248.11	227.49	247.00	218.41	322.00	11.13
Sugarcane	11827.66	11288.58	12741.42	12881.78	15498.95	11914.62	2.89

Source: Directorate of Economics and Statistics, GOB

**Table 3.5 : Productivity Level of Major Crops**

(kgs/ha)

Crops	Triennium Average (2005-08)	2013-14	2014-15	2015-16	Triennium Average (2013-16)	Percentage change between trienniums
Total Cereals	1493	2595	2328	2320	2462	64.9
Total Rice	1284	2110	2525	2104	2318	80.5
Autumn Rice	868	1454	1739	1321	1597	83.9
Aghani Rice	1350	2246	2711	2258	2479	83.6
Summer Rice	1557	2342	2207	2472	2275	46.1
Wheat	1915	2855	1657	2244	2256	17.8
Total Maize	2549	3966	3508	3571	3737	46.6
Kharif Maize	1380	2814	2974	2559	2894	109.7
Rabi Maize	3477	4552	3630	4421	4091	17.7
Summer Maize	3223	4820	4171	3903	4496	39.5
Total Coarse Cereals	1956	3877	3425	3491	3651	86.7
Barley	1104	1398	1109	1304	1254	13.5
Jowar	1035	1065	1068	1063	1067	3.0
Bajra	1067	1138	1134	1133	1136	6.5
Ragi	789	1015	1474	1429	1245	57.7
Small Millets	752	754	757	756	756	0.5
Total Pulses	1606	1044	848	844	946	-41.1
Total Kharif Pulses	860	886	892	821	889	3.4
Urad	782	912	913	883	913	16.7
Bhadai Moong	602	805	838	683	822	36.5
Kulthi	872	952	957	929	955	9.5
Other Kharif Pulses	578	752	757	753	755	30.5
Total Rabi Pulses	746	1056	844	846	950	27.4
Arhar	949	1667	1438	1577	1553	63.6
Gram	919	1147	958	986	1053	14.5
Lentil	753	1272	916	932	1094	45.3
Pea	942	1060	1010	1053	1035	9.9
Khesari	826	1116	990	934	1053	27.5
Summer Moong	594	672	579	548	626	5.3
Other Rabi Pulses	-	1010	1000	1010	1005	-
Total Oilseeds	996	1279	1093	1059	1186	19.1
Castor seed	944	956	958	953	957	1.4
Safflower (Kusum)	800	805	804	802	805	0.6
Sesamum	788	872	874	868	873	10.8
Sunflower	1339	1410	1429	1421	1420	6.0
Mustard & Rapeseed	967	1374	1100	1053	1237	27.9
Linseed	851	850	861	859	856	0.5
Ground Nut	494	1024	1023	1018	1024	107.2
Jute	9967	2571	2694	2508	2633	-73.6
Mesta	9185	2746	2402	3515	2574	-72.0
Sugarcane	40178	49916	60938	48826	55427	38.0

Source : Directorate of Economics and Statistics, GOB

The productivity level of various crops produced in Bihar is presented in Table 3.5. The triennium averages of productivity ending 2005-08 and 2013-16 are shown in two different columns of Table 3.5. The comparison of triennium averages allows one to measure productivity gains, eliminating short term fluctuations. The last column represents the percentage change between two trienniums for each crop. The average productivity of three important cereals for the triennium (2013-16) are — 2318 kgs/ha. for rice, 2256 kgs/ha. for wheat and 3737 kgs/ha. for maize. For rice, the percentage change between two trienniums was found out to be 80.5 percent. For wheat, the change was of the order of 17.8 percent and for maize, it stood at 46.6 percent.

In Bihar, the variation of agro-climatic situation and soil structure across the districts tend to influence the variety of crops produced in different districts, as well as their productivity levels. In this section, a detailed districtwise analysis of the area and production of four important crops is presented.

#### Area and Production of Rice

The districtwise data on area, production and productivity of rice for the years 2014-15 and 2015-16 has been presented in Table A 3.3 (Appendix). The districtwise shares in total area and production have also been shown alongside in brackets. Productivity ranking for each districts has also been shown in the respective column for 2014-15 and 2015-16. If one looks at the figure in brackets along with area and production, the relative position of districts can easily be found out. Considering the level of productivity, the leading districts in 2015-16 are — Lakhisarai, Sheikhpura and Rohtas. The highest level of productivity (4270 kg/hectare) was recorded in Lakhisarai. Considering the production level, the leading districts are — Rohtas, Aurangabad and Banka.

#### Area and Production of Wheat

The districtwise data on area and production of wheat for the years 2014-15 and 2015-16 is presented in Table A 3.4 (Appendix). The districtwise shares in total area and production have also been shown in the brackets, along the data on area and production. The productivity levels along with their respective ranks are also presented in the Table. On the basis of wheat productivity, the leading districts in 2015-16 are — Purnea, Sitamarhi and Bhagalpur. The highest productivity was reported from Purnea (3484 kg / hectare). In terms of production level, the leading districts are — Rohtas, Sitamarhi and Buxar.

#### Area and Production of Maize

The shares in area and production of maize for various districts of Bihar have been presented in Table A 3.5 (Appendix) for the years 2014-15 and 2015-16. The productivity of maize for each district with its rank has also been presented in the Table. As per ranking, the top three districts in terms of maize productivity in 2015-16 are — Katihar, Bhagalpur and Darbhanga. The highest

productivity have been reported from Katihar (8025 kg. / hectare). The three leading districts in terms of production level are — Katihar, Bhagalpur and Araria.

#### Area and Production of Pulses

The area, production and productivity of pulses have been presented districtwise for the years 2014-15 and 2015-16 in Table A 3.6 (Appendix). In case of production, top three performing districts in 2015-16 are — Patna, Nalanda and Aurangabad. For productivity, the top districts turn out to be — Sheikhpura, Rohtas and Nawada. The highest productivity level (1437 kg. per hectare) was reported from the district of Araria.

On the basis of the preceding discussions, the top three districts in terms of production and productivity for four major crops (rice, wheat, maize and pulses) have been listed in Table 3.6.

**Table 3.6 : Leading Districts for Production and Productivity of Rice, Wheat, Maize and Pulses**

Crop	Production / Productivity	Top 3 Districts	
		2014-15	2015-16
Rice	Production	Rohtas, Aurangabad, West Champaran	Rohtas, Aurangabad, Banka
	Productivity	Rohtas, Arwal, Sheikhpura	Lakhisarai, Sheikhpura, Rohtas
Wheat	Production	Rohtas, Kaimur, Siwan	Rohtas, Sitamarhi, Buxar
	Productivity	Jehanabad, Patna, Gaya	Purnea, Sitamarhi, Bhagalpur
Maize	Production	Katihar, Madhepura, Khagaria	Katihar, Bhagalpur, Araria
	Productivity	Katihar, Madhepura, Saharsa	Katihar, Bhagalpur, Darbhanga
Pulses	Production	Patna, Aurangabad, Nalanda	Patna, Nalanda, Aurangabad
	Productivity	Kaimur, Patna, Darbhanga	Sheikhpura, Rohtas, Nawada

#### Area and Production of Fruits

Bihar is known all over India for its litchi and mango. In litchi season, production from Bihar can be found in all markets of India, be it a rural one or a big metro. The Muzaffarpur variety of litchi, particularly ‘shahi’ litchi, is famous for its taste and flavour. The ‘malda’ variety of mango from Bihar is also special for its taste. The levels of production of seven major fruits in Bihar in 2015-16 were — mango (1465 thousand tonnes), guava (370 thousand tonnes), litchi (198 thousand tonnes), banana (1535 thousand tonnes), pineapple (116 thousand tonnes), papaya (53 thousand tonnes) and amla (13 thousand tonnes) (Table 3.7). For three of these seven fruits (litchi, pineapple and amla), the annual growth rates of production have been negative in last five years. However, for four other fruit crops, the annual growth rates have been positive — mango (2.8 percent), guava (13.5 percent), banana (0.2 percent) and papaya (8.5 percent).

**Table 3.7 : Area and Production of Fruits in Bihar**

(area in '000 hectares/ production in '000 tonnes)

Year	Area/ Production	Mango	Guava	Litchi	Banana	Pineapple	Papaya	Amla	Others	Total
2013-14	Area	148.78	29.96	32.17	35.26	4.16	1.76	1.69	32.09	285.86
	Production	1477.74	373.71	258.69	1723.87	113.91	61.97	16.04	323.61	4349.53
2014-15	Area	148.37	29.40	32.20	34.64	4.21	1.88	1.69	32.11	284.50
	Production	1271.62	370.00	197.70	1526.50	116.37	65.25	15.54	310.58	3873.55
2015-16	Area	149.14	29.34	32.10	34.80	4.30	1.60	1.50	32.40	285.18
	Production	1464.93	370.00	198.00	1535.30	116.30	53.44	13.50	310.90	4062.37
CAGR*	Production	2.79	13.47	-5.09	0.19	-2.28	8.47	-2.90	-0.09	0.68

Note : \*CAGR is calculated for 5 years (2011-12 to 2015-16)

Source : Department of Agriculture, GOB

There is widespread variation across districts in Bihar in terms of fruit production. This is depicted in Table A 3.8 (Appendix). In the table, the district-wise area and production for four important fruit crops have been presented, for 2014-15 and 2015-16. These fruit crops are — mango, litchi, guava and banana. The table also presents the share of each district in area and production, which are shown in the brackets alongside each crop. Considering the production levels for mango in 2015-16, one finds that the lead districts are — Darbhanga, Samastipur and Muzaffarpur. For guava, the lead districts are — Nalanda, Rohtas and Bhojpur. For litchi, Muzaffarpur easily dominates the scene. For banana, Muzaffarpur, Vaishali and Samastipur are the leading producers.

#### Area and Production of Vegetables

The agro-climatic conditions in the state are most suitable for the cultivation of a variety of vegetables. The gangetic alluvial soil of the state is very fertile and help farmers to produce vegetables at a low cost. Thus, Bihar ranks first among all the states of India and its vegetables are exported to far-off states. In Table 3.8, the area and production level of 18 important vegetables in Bihar are presented for the years 2013-14, 2014-15 and 2015-16.

From the table, it is observed that there has been modest increase in the production of major vegetables like potato and onion during the period 2013-14 to 2015-16. For example, the production of potato grew annually at the rate of 1.61 percent during that period and onion also by 1.61 percent. Other important vegetables like tomato, cauliflower and brinjal show a negative growth rate. During the same period, the total vegetable production showed a marginal decline by 1.55 percent per annum. In 2015-16, the total production of vegetables was 142.84 lakh tonnes, against 151.58 lakh tonnes reported in 2013-14. The total vegetable production in 2015-16, comprised of potato (63.46 lakh tonnes), onion (12.47 lakh tonnes), tomato (10.01 lakh tonnes), cauliflower (10.04 lakh tonnes), cabbage (7.20 lakh tonnes), brinjal (11.38 lakh tonnes) bottlegourd (6.32 lakh tonnes) and radish (2.47 lakh tonnes).

**Table 3.8 : Area and Production of Vegetables in Bihar**

(area in '000 hectares/ production in '000 tonnes)

Year	Area/ Production	Potato	Onion	Tomato	Cauliflower	Cabbage
2013-14	Area	318.45	54.32	47.69	65.73	40.00
	Production	6050.60	1304.16	1061.77	1147.76	734.98
2014-15	Area	318.99	54.30	47.73	65.70	39.00
	Production	6345.55	1247.31	1046.44	1003.55	695.33
2015-16	Area	319.13	54.03	45.81	65.71	40.52
	Production	6345.52	1247.34	1001.01	1003.90	719.81
CAGR	Production	1.61	1.61	-2.10	-4.08	-0.96
Year	Area/ Production	Brinjal	Okra (Bhindi)	Chillies	Bottle- gourd	Cucumber
2013-14	Area	57.49	58.08	39.49	31.73	2.06
	Production	1240.49	783.54	478.13	658.11	22.88
2014-15	Area	57.60	57.71	44.82	40.27	4.02
	Production	1141.57	762.90	418.33	631.54	67.04
2015-16	Area	57.62	57.90	44.80	40.30	3.60
	Production	1138.05	763.00	418.30	631.60	67.00
CAGR	Production	-3.76	-1.85	-4.25	-2.54	34.39
Year	Area/ Production	Musk melon	Pointed Guard	Bitter- gourd	Pea	Water melon
2013-14	Area	1.13	6.46	3.68	10.16	1.41
	Production	14.15	69.48	70.01	67.15	30.67
2014-15	Area	1.46	6.59	9.71	10.24	1.99
	Production	12.82	69.72	67.25	65.85	29.88
2015-16	Area	1.70	6.60	9.70	10.40	1.40
	Production	12.90	69.60	67.30	65.70	29.70
CAGR	Production	-5.68	-7.01	-3.01	-4.56	-3.01
Year	Area/ Production	Radish	Carrot	Sweet Potato	Others	Total
2013-14	Area	16.01	4.63	0.85	89.75	849.13
	Production	252.35	54.34	8.32	1109.48	15158.37
2014-15	Area	24.10	9.27	1.03	92.81	887.33
	Production	246.55	53.45	8.34	1099.43	15012.84
2015-16	Area	24.30	9.10	0.90	29.00	822.51
	Production	246.50	53.40	8.40	395.40	14284.42
CAGR*	Production	-1.37	-2.43	-2.48	-20.61	-1.55

Note : \*CAGR is calculated for 5 years (2011-12 to 2015-16)

Source: Department of Agriculture, GOB



The districtwise area and production of four important vegetables (potato, onion, cauliflower and brinjal) have been presented in Table A 3.7 (Appendix). In the table, area and production levels have been presented for two years — for 2014-15 and 2015-16. The production level and acreage share of each district are shown in the brackets against that total figures. From the table, one can easily find out that in 2015-16, Nalanda, Patna and Vaishali are the lead district for the production of potato. For onion, the lead districts are — Nalanda, Katihar and Muzaffarpur. Similarly, for cauliflower, the lead districts are — Vaishali, Muzaffarpur and Nalanda.

#### Area and Production of Sugarcane

The sugarcane industry is an important component of the agro-based industry in the state. It not only provides cash benefits to the farmers producing the crop, it also creates substantial direct and indirect employment. The total gross cultivable area is around 76 lakh hectares in the state, of which approximately 3 lakh hectares are under sugarcane cultivation. In 2015-16, the sugarcane production was of the order of 181.75 lakh tonnes, recording an average yield of 68.97 tonnes per hectare.

The districtwise area and production of sugarcane has been presented in Table A 3.9 (Appendix). The share of each district in area and production is shown in brackets, along with the area and production for the years 2014-15 and 2015-16. One can easily find out from the table that, in terms of production, West Champaran and East Champaran are easily the lead districts. However, in productivity data, the highest productivity is recorded in Nalanda (98.23 tonnes per hectare).

Recently, the state government has come up with various schemes which would help the sugarcane production in the state. They are :

- (a) A subsidy of Rs. 135 per quintal is provided for the purchase of certified sugarcane seeds of improved varieties.
- (b) An incentive schemes has also been sanctioned by the government for the production of foundation seed. The schemes provides Rs. 25,000 per hectare.
- (c) The state government has made provision for training of farmers to use the improved variety of seeds in a scientific way. The farmers are sent to other states where the cultivation of improved varieties are taking place on a large scale.

- (d) A provision of subsidy is also there for the cultivators who adopt the system of intercropping of other crops along with sugarcane. A subsidy has also been provided when the farmer uses diesel for irrigation purposes for the cultivation of sugarcane.
- (e) An incentive scheme is also in progress for production of breeder seeds of improved varieties through Sugarcane Research Institute.

### **3.4 Irrigation**

Irrigation is an extremely important input for the 'Green Revolution', along with high yielding varieties of seeds. Timely and assured irrigation is absolutely essential for raising agricultural productivity. Therefore, under Agricultural Road Map II, the state government has identified several targets for the expansion of irrigation potential in Bihar, like increasing total irrigation potential to 101.9 lakh hectares, summer irrigation to 30.6 lakh hectares, construction of 14.64 lakh tubewells, extensive renovation of 1770 ahars/ pynes, and interlinking of rivers to transfer surplus water of north Bihar to south Bihar. A more detailed discussion on irrigation and its possibilities has been discussed in Chapter V which deals with infrastructural development of the state.

### **3.5 Agricultural Inputs**

Adequate and high quality inputs, apart from fertile soil and matching irrigation, are the cornerstone of a highly efficient agricultural sector. These inputs are even more necessary for an economy like Bihar where about 90 percent of the population live in rural areas with agriculture as their principal livelihood. The agricultural inputs include — seeds, fertiliser, farm equipment, and well-monitored extension services. One should also keep in mind that these inputs need to be supplied at a proper time in accordance with the agricultural calendar.

#### Seeds

Any modern agricultural operation needs improved quality seeds. The Agricultural Road Map II of Bihar, therefore stressed the need of producing indigenous high yielding variety seeds and make these available to farmers through efficient extension services and use of 'Kisan Vikas Shibirs' and 'Krishi Salahkars'. There is also a need to maintain the approved level of SRR (Seed Replacement Rate) along with the use of improved seeds for attaining a high level of productivity in agriculture. As there was limitation in producing quality seeds in Bihar in the past, the SRR was often low. The state government is taking steps to increase the SRR in the agricultural sector.

**Table 3.9 : Distribution of Certified Seeds and Seed Replacement Rate (SRR) for Important Crops**

(Requirement and supply in '000 qntl./SRR in percentage)

Crops	2013-14			2014-15			2015-16		
	Require - ment	Supply	SRR	Require - ment	Supply	SRR	Require - ment	Supply	SRR
<b>Kharif Crops</b>									
Paddy	353.60	245.70	40.80	324.80	245.09	38.75	409.38	273.96	39.13
Maize	95.00	19.10	20.15						
Urad	1.40	0.60	18.80	1.62	--	25.00			
Arhar	--	--	--	5.48	1.06	10.58	7.84	1.50	15.01
Moong	1.30	2.10	79.10	--	--	--			
<b>Rabi Crops</b>									
Wheat	840.00	817.20	35.70	864.00	728.31	35.58	912.00	616.39	27.12
Maize	130.00	126.40	85.00	226.45	207.00	90.00	90.00	70.65	80.66
Arhar	4.60	2.50	19.40	5.40	1.05	10.58			
Gram	23.00	7.10	9.10	27.60	4.38	5.51	29.44	6.58	8.32
Masoor	20.80	3.57	5.67	25.80	7.08	11.35	27.52	1.07	1.25
Rapeseed / Mustard	3.30	2.60	39.80	3.46	3.07	49.04	3.59	2.28	36.33

Source : Department of Agriculture, GOB

Under the Agricultural Road Map II, the production of certified seeds of recently evolved crop varieties has been emphasised. As many as 23 crops have been identified for promotional programme by the state government. Some prominent initiatives on the seed front, like Chief Minister's crash seed programme, Seed Village Programme (Beej Gramin Yojana) and provision of subsidy for the production and purchase of certified seeds have immensely benefitted the farmers to raise agricultural productivity. Other important intervention have been the revival of the dormant Bihar Rajya Beej Nigam (BRBN), strengthening the seed certification agency and the programmes for multiplication of base and breeder seeds. As a sequel, three new seed processing plants have also been established at Hajipur, Bhagalpur and Begusarai for the multiplication of both base and breeder seeds. All these have led to higher crop productivity in the state. The 'Mukhyamantri Tibra Beej Vistar Yojana' laid the formulation for the introduction of SRI technique and zero-tillage method in rice production which substantially boosted the productivity. The SRR for major crops like paddy, wheat and maize has increased substantially in recent years. More specifically, the SRR for self-pollinated crops has reached the scientific level of 33 percent. Table 3.9 presents the SRR for major cereals, pulses and oilseeds for the years 2013-14, 2014-15 and 2015-16. The table would reveal that, for two cereals (paddy and wheat), the SRR has nearly stabilised. For maize, particularly rabi maize, the SRR has touched

80.66 percent in 2015-16. For other crops, the SRR has not reached the desired level; but with increasing availability of certified seeds, the situation would improve in coming years.

### Fertilizer

Since the phenomenon of Green Revolution in India, the use of fertilizers has played a vital role in increasing productivity of the agricultural crops. Indeed, the Green Revolution technology was known as 'seed, water, fertilizer technology'. In Bihar also, along with the use of better quality seeds, use of chemical fertilizers in optimum quantity has played a key role in increasing agricultural productivity of crops. Consequently, the consumption of fertilizers has showed steady increase over the years. Table 3.10 presents the figures for consumption of fertiliser in last three years.

**Table 3.10 : Consumption of Fertilizers**

Type of Fertilizer	2013-14			2014-15			2015-16		
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
Urea	862.0	1008.7	1870.6	864.3	1076.1	1940.4	954.2	1403.9	2358.1
DAP	94.5	265.6	360.2	128.6	224.1	352.7	186.4	356.4	542.8
SSP	30.0	28.8	58.7	26.1	30.7	56.8	47.6	26.2	73.7
MOP	51.2	88.8	140.0	54.6	99.1	153.7	48.3	105.5	153.7
Ammonium Sulphate	6.8	7.2	14.0	1.3	2.4	3.7	2.6	15.8	18.4
Complex	40.7	117.3	157.9	76.0	186.0	262.0	150.3	201.6	351.8
Sub Total	1085.0	1516.3	2601.4	1150.8	1618.5	2769.4	1389.2	2109.3	3498.5
N	421.7	533.2	955.0	433.1	567.3	1000.4	499.8	749.9	1249.8
P	57.1	152.7	209.8	82.4	152.8	235.1	128.1	212.8	340.9
K	34.0	62.0	96.0	39.4	71.8	111.2	35.4	70.7	106.2
Total (NPK)	512.9	747.9	1260.8	554.8	791.8	1346.7	663.4	1033.4	1696.8
Grand Total	<b>1597.9</b>	<b>2264.2</b>	<b>3862.2</b>	<b>1705.7</b>	<b>2410.3</b>	<b>4116.0</b>	<b>2052.6</b>	<b>3142.7</b>	<b>5195.3</b>
Consumption of fertilizer (kg/ha.)	127.2	171.5	150.2	138.1	181.8	160.8	160.4	240.2	201.1

Source : Department of Agriculture, GOB

In 2013-14, the total consumption of fertilizers in Bihar was 38.62 lakh tonnes, which increased 51.95 lakh tonnes in 2015-16, registering an increase of 34.5 percent in three years, implying an increase of round 11 percent per year. From Table 3.10, one may also observe a trend towards a more balanced use of fertilizers in the last two years. The NPK (Nitrogen, Phosphorous and

Potassium) ratio for the last three years has been 10:2:1 (2013-14), 9:2:1 (2014-15) and 8:2:1 (2015-16). This indicates more rational use of fertilizer components by the farmers in Bihar.

Table 3.10 also indicates that urea is the most important fertiliser used by the farmers and it constitutes around 67 percent of the total fertilizer consumption. It can also be noted that, although kharif crops are more important in Bihar, the use of chemical fertilizers is comparatively higher for rabi crops. In 2015-16, whereas the farmers used 160.40 kgs/ha of fertilisers for kharif crops, they used a much higher quantity of 240.18 kgs/ha for rabi crops. Besides NPK, the state government is making concerted efforts to promote bio-fertilizers and green manure technique on a larger scale. To supplement the central subsidy, the state government is providing additional subsidy for the use of micro-nutrients. Under the Agriculture Road Map II, the state government is pressing for the cultivation of 'Dhaicha' and 'Moong', the green manure plants. The process has evoked immense response from the farmers.

#### Extension Services

An efficient team of extension workers, equipped with knowledge of scientific farming, can help the farmers to acquire knowledge about modern technology at their door-step. This team can work as a catalyst for seed management, use of optimum mix of chemical fertilisers (on the basis of earth chemistry), adopting newer cropping pattern, and extensive use of high yielding variety of seeds. With the introduction of subject matter specialist and 'Kisan Salahakar' at the sub-block level, the extension services have grown manifold in Bihar in recent years.

A massive training programme to enhance the knowledge of farmers through 'Kisan Pathshalas' has gained momentum. They are attending these 'schools' to gain knowledge regarding soil-testing methods at the field level, vermi compost, and new SRI (System of Rice Intensification) technique for paddy cultivation. The 'Kishan Vikas Shivirs' and 'Kisan Chaupals' have become a forum for exchange of ideas between experts and farmers. 'Rabi and Kharif Mahotsavs' are being organised at the block level, before the onset of crop season. During 2011-12, 16 districts were selected for the introduction of SRI technique for paddy cultivation. During 2012-13, SRI technique for wheat cultivation was also demonstrated in those districts. They were based on 'zero tillage' methods. During 2015-16, all districts have been covered by SRI technique for rice cultivation.

Recently, the Kisan Vikas Shivirs are involved in a big way for the distribution of all agricultural inputs and related subsidies. The farmers purchase inputs (seed, bio-fertilizers and farm implements) during their visits to these camps. In recent years, Dhaicha seeds are distributed to

farmers free of cost. The implementation of the green manure technology will have far-reaching effect in keeping the soil fertility intact.

### Farm Mechanization

It is a historical fact that with increasing mechanization, economies of scale becomes operative in agriculture and agricultural production becomes cost effective. With increase in productivity, cost of cultivation per unit of production diminishes. Thus, an optimum level of mechanization brings in a phase of low-cost agriculture. Further, the drudgery associated with manual agricultural operation diminishes and agricultural cycle is completed in a time-bound manner. The farm mechanization is thus an integral part of the Agricultural Road Map II of the state government. It is presently providing subsidy, in addition to the subsidy provided under centrally sponsored schemes, for power tillers, tractors, sprayers, winnowing machines, power weeders and power threshers. The recent focus is on zero-tillage methods which is particularly suitable for small and marginal farmers. Because of the efforts of the state government, many agricultural equipments which were hitherto unknown in rural households, are now common with cultivators in Bihar.

The provision of subsidy has taken off farm mechanization in Bihar on a big scale. In 2009-10, the number of tractors distributed in Bihar was 3672. The figure jumped to 9062 in 2014-15. By December 2016, the figure rose to as high as 26,919. Likewise, combine harvesters which were a meager 42 in number in 2009-10 grew to 261 in 2013-14. By December 2016, around 990 combine harvesters were distributed on subsidy. The zero-tillage machines rose from 860 in 2009-10 to around 12,900 by December, 2016 because of the promptness and eagerness on the part of the extension workers. There were as many as 8635 threshers in use in 2016-17.

### Organic Farming

Throughout the world, the agricultural scientists are shifting their focus from the use of chemical fertilizers to recently evolved bio-fertilizer. Use of chemical fertilizers, as has been found out, has eroded nutrient components inherent in soil itself. In some parts of the world, after extensive use of chemical fertilizers for several years, the soil has been left unusable for agricultural purposes. In contrast, organic farming is environment friendly and free of health hazards. Bihar is not far behind in this sphere. The promotion of organic farming has been a part of the Agricultural Road Map II of Bihar, so that the soil can retain its inherent fertility for years to come. This programme would cost Rs. 255 crores over a period of 5 years. The vermi compost production has been made demand-based, with a provision of 50 percent subsidy. The state government has also sanctioned additional subsidy for the purchase of vermi compost from 2011-12. During 2014-15, a total of about Rs. 160 crore was spent on promoting organic

farming. The integrated pest control programme has also been undertaken for controlling insects and diseases from the stage of seed sowing to standing crops. An amount of Rs. 91.33 lakh was targeted to be spent on bio-pesticides in Bihar in 2015-16. The districtwise details about utilisation of bio-fertilisers have been presented in Table A 3.10 (Appendix).

### Horticultural Development

Bihar is one of the largest producer of fruits and vegetables in the country. So, it is extremely important to develop horticulture in a scientific manner in the state. Easy availability of quality planting materials is most crucial for horticultural development. So, a strategy has been adopted to make mother plants available in agricultural universities and other departmental nurseries of the state, to be distributed among the farmers in time. Depending on the agro-climatic conditions, one specific horticulture crop has been identified per district, so that a cluster approach can be undertaken in each district. Apart from important fruit crops, the universities would be directed to set up progeny nurseries for less common fruits like bael, ber, jamun, amla, etc. Further, more tissue culture laboratories would be set up in the state under Agriculture Road Map II during 2017-22, since tissue culture technique is extensively used for multiplication of plants like banana and flowers. Under State Horticulture Mission, a scheme has been introduced for the popularization of highly productive mushroom cultivation. Under this, subsidy is provided to woman's groups to provide 'spawn' of mushroom and composite kits for mushroom cultivation.

### **3.6 Agricultural Credit**

For agricultural farm operations, physical inputs like seed, water, fertiliser and agricultural implements are most important. But such modern agricultural inputs cannot be procured from market without adequate credit support. Thus, farm credit is very important for the farmers, as it provides them with much needed working capital. The data related to agricultural credit in the state shows that there is a big gap between demand and supply of agricultural credit. In Table 3.11, the bank-wise details are presented for agricultural credit.

**Table 3.11 : Agricultural Credit Flow**

(Rs. crore)

Year	Commercial Bank		RRBs		CCB		Total	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
2011-12	12241	9689 (79.2)	7013	4882 (69.6)	1848	387 (20.9)	21102	14958 (70.9)
2012-13	14674	13203 (90.0)	8407	8035 (95.6)	2319	328 (14.2)	25401	21566 (84.9)
2013-14	18709	17786 (95.1)	10777	10676 (99.1)	800	307 (38.4)	30286	28770 (95.0)
2014-15	22191	21260 (95.8)	12809	13058 (101.9)	1000	362 (36.2)	36000	34680 (96.3)
2015-16	26554	24957 (94.0)	14946	15135 (101.3)	1000	1258 (125.8)	42500	41350 (97.3)

Note : Figures in the parentheses denote achievement percentage to the target

Source: State Level Bankers' Committee

The table covers the period from 2011-12 to 2015-16. The flow of agricultural credit comprises three major sectors — Commercial Banks, Regional Rural Banks (RRB) and Central Co-operative Banks (CCB). In 2011-12, the achievement level for agricultural credit has been around 71 percent. However, the level rose to 97 percent in 2015-16. In intermediate years, the level varied from 85 to 96 percent. The gross flow of credit which was Rs. 14,958 crore in 2011-12 increased nearly three times to Rs. 41,350 crore in 2015-16. However, with rising prices of inputs and rising demand of modern inputs by the farmers who are interested in scientific farming, the supply of credit is not sufficient at the moment. The share of 3 different sources in 2015-16 stood at Commercial Banks (60.4 percent) RRBs (36.6 percent) and CCB (3.0 percent). This shows that commercial bank handle the major part of agricultural credit in Bihar.

Since the Commercial Banks and RRBs are not keen to supply the credit as they seek collaterals from the farmers for granting credit, the Co-operative Banks could have played a supporting role in providing agricultural credit. But, unfortunately this strategy has failed to work. The district-wise position of targets and achievements of Co-operative Banks are shown in Table A 3.11 (Appendix). It is evident from the table that no district could fulfill the targets, fixed for them in 2015-16. The levels of co-operative credit supply were comparatively higher in Begusarai, Madhubani, Khagaria, Patna and East Champaran in 2015-16. In districts like Saharsa, Supaul, Madhepura, Sheikhpura, Lakhisarai, Jamui and Saran, co-operative credit operations are either nil or negligible.

Recently, for crop loan, an amount of interest subsidy has been announced by the state government which may help the farmer to reduce the cost of loan. Under this programme, the farmers would be getting loan at the rate of 4 percent. NABARD is refinancing the loan scheme for the state government. This will lead to an increased flow of agricultural credit to farmers.

#### Kisan Credit Cards (KCC)

The Kisan Credit Card Scheme (KCC), introduced in 1998-99, is an important instrument for the farmers to avail of crop loans in a flexible and cost effective manner. Through this scheme, farmers are allowed a maximum credit limit of Rs. 50,000 to procure necessary inputs. In 2011-12, an estimated number of 8.19 lakh farmers could reap the benefits of this scheme, the achievement level being 55 percent. In 2015-16, the coverage was extended to 7.64 lakh farmers with an achievement level of 51 percent. The working of KCC in Bihar has been discussed comprehensively in Chapter IX, dealing with the banking sector in the state.



### 3.7 Animal Husbandry

Animal husbandry, along with agriculture, is one of key sectors which provide massive employment and income opportunities for the rural people of Bihar. This sector contributes about one-fifth of the total rural income and creates large scale employment to women and workers belonging to the marginalised section of the society. Therefore, the state government has taken steps to treat this sector as well as fisheries at par with agriculture. This is for the first time in the country that such a step has been taken by any state government. The state government has sanctioned the creation of a separate ‘Animal Science University’, namely ‘Bihar Pashu Vigyan Vishwavidyalaya’ in 2016.

According to the livestock census of 2012, the total livestock population was estimated to be 329.39 lakh. It is proposed that the next census would be undertaken in 2017. According to data, as presented in Table A 3.12 (Appendix), 60 percent of the total livestock population are milch animals, with a cow population of 122.32 lakh and a buffalo population of 75.67 lakh. The population of goat, popularly termed as poor man’s cow, stands at 121.54 lakh. The state government has taken several steps like breed upgradation, health and nutrition, and insurance schemes for milch animals and marketing of the product of the sector. Further, training programmes have been arranged for rural workers for upgradation of their skills in animal husbandry. A sum of Rs. 69.10 lakh has been sanctioned for the training of 2067 SC/ST members.

Table 3.12 presents the comparative picture depicting the livestock wealth for last three censuses. From this table, one can notice that total livestock population increased from 269.57 lakhs in 2003 to 329.39 lakhs in 2012, implying an increase of 22 percent. For poultry, the figures are 139.68 lakhs (2003) and 127.48 lakhs (2012), implying decrease of 8.7 percent.

The districtwise details of livestock census data, 2012 has been presented in Table A 3.12 (Appendix). If one looks into the data, wide variation of livestock population over the districts is easily noticed. For bovine population (cows and buffalos), the district with higher shares are — Araria, Gaya, Katihar, Banka and Bhagalpur for cows and Madhepura, Madhubani, East Champaran, Gaya and Nalanda for buffalos. For goats and poultry, there is higher concentration in the north-eastern region of the state where the climate is rather conducive for their upkeep. The districts which have large concentration of goats are — Araria, East Champaran, West Champaran, Bhagalpur and Katihar. For poultry — Katihar, Muzaffarpur, Vaishali, Kishanganj and Araria are the key districts.

**Table 3.12 : Livestock Wealth (2003, 2007 and 2012)**

(Figures in '000)

Livestock and Poultry	2003	2007	2012	Livestock and Poultry	2003	2007	2012
Cattle	10470	12408	12232	Sheep	346	218	232
Males over 3 years	3020	2737	1915	Goats	9606	10167	12154
Females over 3 years	3643	4919	5982	Pigs	627	632	650
Young stock	3807	4752	4334	Horses and Ponies	115	51	49
Buffalo	5766	6690	7567	Others	0	0	55
Males over 3 years	274	329	300	Total Livestock	26957	30167	32939
Females over 3 years	2901	3546	4017	Total Poultry	13968	11420	12748
Young stock	2590	2815	3250				

Source : Department of Animal Husbandry, GOB

In Table 3.13, the production levels of various animal husbandry products have been presented for the period 2010-11 to 2015-16. Milk is the most important produce of this sector. The production of milk has increased 25.1 percent from 66.25 lakh tonnes in 2011-12 to 82.88 lakh tonnes in 2015-16. The production of egg has also increased from 75.43 crores in 2011-12 to 100.21 crores in 2015-16, implying an increase of 32.9 percent.

**Table 3.13 : Livestock and Fish Production**

Year	Milk (lakh tonnes)	Egg (crores)	Wool (lakh kgs)	Meat (lakh tonnes)	Fish (lakh tonnes)
2011-12	66.25	75.43	2.66	2.28	3.44
2012-13	68.45	83.72	2.67	2.28	4.00
2013-14	71.97	93.08	2.71	2.92	4.32
2014-15	77.75	98.45	2.78	2.94	4.79
2015-16	82.88	100.21	2.40	3.02	5.07
CAGR	5.92	7.58	-1.64	8.51	10.03

Source : Department of Animal Husbandry, GOB

The state government has several schemes like medical treatment of animals, vaccination, sterilization, artificial insemination, free distribution of fodder seeds for the growth of the animal husbandry sector. The progress of livestock services over the past few years have been shown in Table 3.14. Recently, 50 ambulatory van has been provided for such services in remote rural areas.

**Table 3.14 : Livestock Services**

Year	Animal Treated (lakh)	Immunization (lakh)	Artificial Insemination (lakh)	Free Distribution of Fodder Seed (qntls.)
2012-13	28.24	198.78	24.63	3.40
2013-14	25.12	147.57	24.14	102.60
2014-15	32.99	19.96	26.24	Not Distributed
2015-16	33.89	163.31	26.34	Not Distributed

Source : Department of Animal Husbandry, GOB

For Bihar as a whole, 32.99 lakh animals were treated in 2014-15. The figure increased to 33.89 lakh in 2015-16. In addition, 163.31 lakh animals were immunized in 2015-16. The coverage of artificial insemination stood at 26.34 lakh animals in 2015-16, including the share of COMFED. The state government provide 5 Milk scanner through COMFED at a cost of Rs. 3.00 crore for the benefit of the milk producers. Under ‘Samagra Gavya Vikash Yojana’ for the establishment of dairy units of various sizes, the state government has sanctioned an amount of Rs. 80.00 crore.

For smooth working of the artificial insemination project, silos has been provided at 9 urban centres for the storage of liquid nitrogen. The artificial insemination centres at all the district levels have been duly upgraded. Several NGOs have been associated to invigorate the insemination centres, where expected number of new born calves are rather high.

### Fisheries

The water area in Bihar is 273.3 thousand hectares and it also has 3200 kms. of river length. This constitutes about 3.9 percent of the total geographical area. Consequently, there exists wide scope of fish cultivation in the state, providing gainful occupation for fishing population. This sector is growing steadily and the contribution of this sector to the GSDP has more-than-doubled during the last decade. In 2004-05, the production of fish in Bihar was 2.67 lakh tonnes. The production grew continuously thereafter and reached the peak level of 5.07 lakh tonnes in 2015-16 (Table 3.13).

In view of the potential of the sector in providing gainful employment to poor persons, the state government has taken steps to enhance the skill of the fishermen. The fishermen have been provided on-site training and exposure visits to various places in India, including Andhra Pradesh and West Bengal. The state government has supported in installation of fish feed mill and construction of fish seed hatchery on subsidised rate. To facilitate fish marketing, the scheme of distribution of moped-cum-icebox has been introduced. Two and three wheeler vehicles have

also been inducted on subsidised rates for fast movement of fish to the markets. In 2011-12, a new insurance scheme has been introduced for fish farmers under the aegis of Oriental Insurance Company, a public sector enterprise. Premium of this scheme is highly subsidised in favour of fishermen.

Several schemes undertaken by the state government have highly benefitted the fish farmers in the state. These include distribution of fish seed on subsidies, loans for maintenance and renovation of private ponds on low interest and easy repayment terms, and provisions of free homes to poor fishermen. The initiative to develop 'ponds' and 'chaurs' have increased the water bed for wider fish farming in the state. The districtwise details of fish production and distribution of seeds are given in Table A 3.13 (Appendix) for the years 2013-14, 2014-15, 2015-16. A look at the table would show that the three leading districts in terms of fish production in 2015-16 are — Madhubani (51.5 thousand tonnes), East Champaran (50.4 thousand tonnes) and Darbhanga (44.0 thousand tonnes). For fish seed, the two leading districts are Sitamarhi (596 lakhs) and Darbhanga (499 lakhs).

## APPENDIX

**Table A 3.1 : District-wise Annual Rainfall for Different Seasons**

(Rainfall in mm)

District	2015					2016(Upto October)				
	Winter Rain	Hot Weather Rain	South-West Monsoon	North-West Monsoon	Total	Winter Rain	Hot Weather Rain	South-West Monsoon	North-West Monsoon	Total
Patna	0.0	41.0	491.8	1.7	534.5	3.4	56.7	801.3	57.8	919.2
Nalanda	9.0	43.3	619.6	0.0	671.9	13.4	48.9	953.3	72.1	1087.7
Bhojpur	3.2	60.3	569.6	9.9	643.0	2.5	43.8	716.8	44.2	807.3
Buxar	23.8	32.1	687.9	3.8	747.6	6.0	57.6	815.2	62.8	941.6
Rohtas	9.3	70.6	444.2	2.5	526.6	0.0	2.3	961.9	76.9	1041.1
Kaimur	17.9	45.7	762.4	0.0	826.0	24.0	13.7	1114.3	42.5	1194.5
Gaya	15.4	33.0	689.4	0.5	738.3	20.0	19.3	1061.7	84.7	1185.7
Jehanabad	5.1	11.6	574.3	0.0	591.0	13.4	26.8	892.0	74.6	1006.8
Arwal	10.9	29.2	713.8	0.0	753.9	3.0	4.9	1131.4	97.0	1236.3
Nawada	16.0	22.1	589.3	2.7	630.1	20.0	16.8	807.4	70.6	914.8
Aurangabad	17.1	70.8	861.2	0.0	949.1	12.6	17.6	1220.0	127.0	1377.2
Saran	3.4	32.8	431.7	5.7	473.6	0.3	42.3	548.2	35.7	626.5
Siwan	2.2	104.0	548.3	1.4	655.9	1.2	20.7	783.2	39.1	844.2
Gopalganj	11.3	124.7	554.5	24.0	714.5	0.0	112.0	710.0	31.7	853.7
W.Champaran	12.2	128.7	746.5	23.3	910.7	1.7	98.2	980.5	2.7	1083.1
E.Champaran	8.0	112.3	745.5	5.1	870.9	6.4	112	773.5	20.7	912.6
Muzaffarpur	6.2	6.9	453.6	1.2	467.9	1.2	88.1	571.2	19	679.5
Sitamarhi	0.8	81.7	508.4	0.0	590.9	1.9	52.1	685.9	6.8	746.7
Sheohar	17.6	93.4	638	28.7	777.7	5.3	108.7	843.9	7.8	965.7
Vaishali	4.6	37.9	465.1	4.2	511.8	1.2	0.2	651.9	57.8	711.1
Darbhanga	0.0	122.4	715.9	2.8	841.1	0.0	111.0	878.9	46.5	1036.4
Madhubani	9.8	93.6	601.9	0.0	705.3	6.1	128.4	951.7	30.9	1117.1
Samastipur	12.8	83.9	797.1	0.0	893.8	0.2	111.9	859.1	87.4	1058.6
Begusarai	20.9	83.4	858	2.5	964.8	5.6	55.7	844.8	31.8	937.9
Munger	9.1	67.7	742.4	2.8	822.0	39.9	50.8	882.4	21.6	994.7
Sheikhpura	0.0	38.7	755.4	0.0	794.1	18.6	18.0	987.9	78.1	1102.6
Lakhisarai	3.0	24.7	714.8	1.8	744.3	12.2	28.9	990.7	33.7	1065.5
Jamui	16.9	52.6	728.8	0.1	798.4	18.3	15.5	1026.1	60.6	1120.5
Khagaria	31.5	111.9	903.6	0.0	1047.0	17.9	50.7	679.1	19.5	767.2
Bhagalpur	57.1	179.9	1174.5	0.0	1411.5	0.0	109.7	986.4	36.7	1132.8
Banka	21.4	91.4	607.1	-	719.9	12.3	50.9	916.1	45.1	1024.4
Saharsa	16.7	134.4	806.4	0.0	957.5	0.0	111.0	1169.9	68.9	1349.8
Supaul	0.0	94.4	566.0	13.9	674.3	0.0	164.1	1122.0	80.8	1366.9
Madhepura	20.3	169.0	667.7	0.7	857.7	1.8	139.8	1010.0	65.0	1216.6
Purnea	13.0	113.6	693.8	4.4	822.8	0.0	185.3	1131.1	51.7	1368.1
Kishanganj	7.5	348.5	1298.4	0.0	1654.4	4.8	250.2	1887.2	124.8	2267.0
Araria	0.0	240.0	768.7	5.7	1014.4	8.1	164.2	1431.0	81.1	1684.4
Katihar	9.2	164.1	750.3	9.49	933.1	0	71	827	75.5	973.5
<b>Bihar</b>	<b>11.7</b>	<b>89.4</b>	<b>690.7</b>	<b>4.3</b>	<b>795.9</b>	<b>7.5</b>	<b>72.6</b>	<b>937.0</b>	<b>54.5</b>	<b>1071.6</b>

Source : Directorate of Economics and Statistics, GOB

**Table A 3.2 : District-wise Land Utilisation Pattern (2013-14)**

(Area in '000 hectares)

Name of District	Geographical Area (1)	Forest (2)	Barren and Unculturable land (3)	Non- Agriculture Use (4)			Culturable Waste Land (5)
				Land area	Water Area		
					Perennial	Temporary	
Patna	317.2 (100.0)	0.1 (0.0)	12.4 (3.9)	67.4 (21.2)	10.3 (3.2)	2.4 (0.8)	0.8 (0.3)
Nalanda	232.7 (100.0)	4.6 (2.0)	1.2 (0.5)	35.7 (15.3)	2.5 (1.1)	7.6 (3.3)	0.2 (0.1)
Bhojpur	237.3 (100.0)	0.0 (0.0)	6.7 (2.8)	30.2 (12.7)	2.8 (1.2)	1.4 (0.6)	0.6 (0.3)
Buxar	167 (100.0)	0.0 (0.0)	2.2 (1.3)	13.1 (7.8)	3.2 (1.9)	1.3 (0.8)	0.7 (0.4)
Rohtas	390.7 (100.0)	66.7 (17.1)	16.8 (4.3)	39.3 (10.1)	9 (2.3)	0.3 (0.1)	1.1 (0.3)
Kaimur	342.4 (100.1)	113 (33)	19.3 (5.6)	31.1 (9.1)	2.5 (0.7)	1.3 (0.4)	1.9 (0.6)
Gaya	493.8 (100.0)	77.8 (15.8)	27.5 (5.6)	63.2 (12.8)	3.8 (0.8)	6.8 (1.4)	3.3 (0.7)
Jehanabad	94.0 (99.9)	0.6 (0.6)	3.3 (3.5)	13.8 (14.7)	0.8 (0.9)	0.4 (0.4)	0.1 (0.1)
Arwal	62.6 (100.3)	0.0 (0.0)	2.2 (3.5)	9.2 (14.7)	0.6 (1.0)	0.6 (1.0)	0.1 (0.2)
Nawada	248.7 (100.0)	63.8 (25.7)	11.2 (4.5)	25.7 (10.3)	3.0 (1.2)	7.0 (2.8)	1.1 (0.4)
Aurangabad	330 (100.1)	18.8 (5.7)	16.4 (5.0)	56.2 (17.0)	1.7 (0.5)	1.7 (0.5)	1.8 (0.5)
Saran	264.9 (100.0)	0.0 (0.0)	17.9 (6.8)	28.6 (10.8)	3.5 (1.3)	2.9 (1.1)	0.2 (0.1)
Siwan	224.4 (100.1)	0.0 (0.0)	8.7 (3.9)	29.5 (13.1)	2.0 (0.9)	1.6 (0.7)	0.7 (0.3)
Gopalganj	203.8 (100.0)	0.0 (0.0)	5.5 (2.7)	31.3 (15.4)	2.1 (1)	0.4 (0.2)	1.4 (0.7)
W. Champaran	484.4 (100.0)	91.8 (19.0)	2.9 (0.6)	70.9 (14.6)	15.2 (3.1)	8.4 (1.7)	1.3 (0.3)
E. Champaran	431.7 (100.0)	0.1 (0.0)	8.1 (1.9)	51.5 (11.9)	10.1 (2.3)	15.8 (3.7)	0.3 (0.1)
Muzaffarpur	315.4 (100.0)	0.0 (0.0)	5.3 (1.7)	51.4 (16.3)	7.8 (2.5)	4.6 (1.5)	0.3 (0.1)
Sitamarhi	221.9 (100.0)	0.0 (0.0)	1.8 (0.8)	45.2 (20.4)	2.5 (1.1)	15.6 (7)	0.1 (0.0)
Sheohar	43.5 (100.2)	0.0 (0.0)	0.4 (0.9)	10.0 (23.0)	1.3 (3.0)	0.2 (0.5)	0.0 (0.0)
Vaishali	201.5 (100.0)	0.0 (0.0)	24.1 (12)	30.4 (15.1)	5.8 (2.9)	2.0 (1.0)	0.1 (0.0)
Darbhanga	254.1 (100.0)	0.0 (0.0)	1.3 (0.5)	44.3 (17.4)	9.4 (3.7)	7.2 (2.8)	0.1 (0.0)
Madhubani	353.5 (100.0)	0.0 (0.0)	2.2 (0.6)	71.3 (20.2)	13.4 (3.8)	2.3 (0.7)	0.5 (0.1)
Samastipur	262.4 (100.1)	0.0 (0.0)	3.8 (1.4)	54.7 (20.8)	8.2 (3.1)	0.9 (0.3)	0.1 (0.0)
Begusarai	187.8 (100.1)	0.0 (0.0)	18.0 (9.6)	30.2 (16.1)	7.7 (4.1)	3.9 (2.1)	0.0 (0.0)
Munger	139.8 (99.9)	28.5 (20.4)	11.4 (8.2)	20.8 (14.9)	5.8 (4.1)	5.2 (3.7)	0.8 (0.6)
Sheikhpura	62.1 (99.8)	0.0 (0.0)	1.0 (1.6)	7.7 (12.4)	0.9 (1.4)	2.1 (3.4)	0.2 (0.3)
Lakhisarai	128.6 (100.2)	13.5 (10.5)	7.0 (5.4)	9.2 (7.2)	1.2 (0.9)	4.8 (3.7)	0.7 (0.5)
Jamui	305.3 (100.0)	92.9 (30.4)	28.6 (9.4)	39.4 (12.9)	2.2 (0.7)	2.8 (0.9)	10.3 (3.4)
Khagaria	149.3 (100.0)	0.0 (0.0)	13.6 (9.1)	19.3 (12.9)	7.7 (5.2)	4.2 (2.8)	0.6 (0.4)
Bhagalpur	254.3 (100.0)	0.1 (0.0)	22.4 (8.8)	54.7 (21.5)	6.6 (2.6)	9.7 (3.8)	2.3 (0.9)
Banka	305.6 (100.0)	46.3 (15.2)	43 (14.1)	36.8 (12.0)	2.9 (0.9)	3.0 (1.0)	7.9 (2.6)
Saharsa	164.6 (100.0)	0.0 (0.0)	10.8 (6.6)	22.2 (13.5)	4.8 (2.9)	2.2 (1.3)	0.4 (0.2)
Supaul	238.6 (100.0)	0.0 (0.0)	20.2 (8.5)	39.2 (16.4)	9.8 (4.1)	2.9 (1.2)	1.4 (0.6)
Madhepura	179.6 (100.1)	0.0 (0.0)	3.9 (2.2)	26.8 (14.9)	3.9 (2.2)	1.1 (0.6)	0.0 (0.0)
Purnea	313.9 (100.0)	0.1 (0.0)	12.3 (3.9)	38 (12.1)	6.9 (2.2)	1.4 (0.4)	1.1 (0.4)
Kishanganj	189.1 (100.1)	0.4 (0.2)	11.2 (5.9)	25.9 (13.7)	7.3 (3.9)	2.6 (1.4)	1.2 (0.6)
Araria	271.7 (99.9)	0.8 (0.3)	5.0 (1.8)	40.7 (15.0)	6.4 (2.4)	5.2 (1.9)	0.5 (0.2)
Katihar	291.4 (100.0)	1.8 (0.6)	22.1 (7.6)	42.1 (14.4)	12.1 (4.2)	4.1 (1.4)	0.6 (0.2)
Bihar	9359.6 (100.0)	621.6 (6.6)	431.7 (4.6)	1356.9 (14.5)	207.5 (2.2)	148.1 (1.6)	44.9 (0.5)

Note : Figures in the parentheses denotes percentage  
Source : Directorate of Economics and Statistics, GOB

(Contd.)

**Table A 3.2 : District-wise Land Utilisation Pattern (2013-14) (Contd.)**

(Area in '000 hectares)

District	Permanent Pastures (6)	Tree Crops (7)	Fallow land (8)	Current Fallow (9)	Total Uncultivable Land (10) (2 to 9)	Net Area Sown (11)	Grass Crop Area (12)	Cropping Intensity (13)
Patna	0.1 (0.0)	1.0 (0.3)	1.5 (0.5)	71.1 (22.4)	167.1 (52.7)	150.2 (47.4)	194.9	1.30
Nalanda	0.0 (0.0)	1.3 (0.6)	0.2 (0.1)	31.7 (13.6)	85.0 (36.5)	147.7 (63.5)	180.2	1.22
Bhojpur	0.1 (0.0)	2.1 (0.9)	2.4 (1.0)	11.4 (4.8)	57.7 (24.3)	179.7 (75.7)	217.7	1.21
Buxar	0.0 (0.0)	0.8 (0.5)	0.6 (0.4)	7.1 (4.3)	28.9 (17.3)	138.1 (82.7)	194.1	1.41
Rohtas	0.1 (0.0)	2.9 (0.7)	0.7 (0.2)	4.5 (1.2)	141.5 (36.2)	249.3 (63.8)	364.9	1.46
Kaimur	0.1 (0.0)	0.8 (0.2)	0.2 (0.1)	16.2 (4.7)	186.3 (54.4)	156.2 (45.6)	218.9	1.40
Gaya	2.1 (0.4)	3.9 (0.8)	11.3 (2.3)	165.2 (33.5)	364.9 (73.9)	128.9 (26.1)	175.2	1.36
Jehanabad	0.1 (0.1)	0.7 (0.7)	0.2 (0.2)	22.4 (23.8)	42.6 (45.3)	51.5 (54.8)	88.6	1.72
Arwal	0.2 (0.3)	0.9 (1.4)	1.6 (2.6)	5.2 (8.3)	20.5 (32.7)	42.2 (67.4)	47.4	1.12
Nawada	0.9 (0.4)	0.7 (0.3)	2.6 (1.0)	26.2 (10.5)	142.3 (57.2)	106.4 (42.8)	130.3	1.22
Aurangabad	0.6 (0.2)	0.7 (0.2)	1.2 (0.4)	52.8 (16)	151.7 (46.0)	178.3 (54.0)	264.9	1.49
Saran	0.2 (0.1)	8.6 (3.2)	3.6 (1.4)	33.4 (12.6)	98.8 (37.3)	166.1 (62.7)	213.2	1.28
Siwan	0.2 (0.1)	8.9 (4.0)	1.4 (0.6)	0.8 (0.4)	53.7 (23.9)	170.8 (76.1)	233.6	1.37
Gopalganj	0.2 (0.1)	7.5 (3.7)	2.4 (1.2)	5.2 (2.6)	55.9 (27.4)	147.9 (72.6)	217.8	1.47
W. Champaran	1.1 (0.2)	6.5 (1.3)	2.6 (0.5)	10.6 (2.2)	211.3 (43.6)	273.1 (56.4)	435.9	1.60
E. Champaran	0.4 (0.1)	27.2 (6.3)	2.9 (0.7)	43.3 (10)	159.6 (37)	272.1 (63.0)	419.5	1.54
Muzaffarpur	0.0 (0.0)	17.5 (5.5)	1.4 (0.4)	8.4 (2.7)	96.6 (30.6)	218.8 (69.4)	308.4	1.41
Sitamarhi	1.4 (0.6)	13.9 (6.3)	0.5 (0.2)	4.6 (2.1)	85.5 (38.5)	136.4 (61.5)	241.5	1.77
Sheohar	0.0 (0.0)	3.7 (8.5)	0.8 (1.8)	1.6 (3.7)	17.9 (41.1)	25.6 (58.9)	46.5	1.82
Vaishali	0.3 (0.1)	9.8 (4.9)	0.3 (0.1)	7.7 (3.8)	80.6 (40.0)	120.9 (60.0)	175.4	1.45
Darbhanga	0.1 (0.0)	12.4 (4.9)	2.1 (0.8)	21.4 (8.4)	98.4 (38.7)	155.7 (61.3)	183.8	1.18
Madhubani	1.3 (0.4)	23.9 (6.8)	2.9 (0.8)	8.0 (2.3)	125.9 (35.6)	227.7 (64.4)	316.3	1.39
Samastipur	0.1 (0.0)	8.3 (3.2)	0.9 (0.3)	12.7 (4.8)	89.6 (34.1)	172.9 (65.9)	302.1	1.75
Begusarai	0.0 (0.0)	3.8 (2.0)	0.8 (0.4)	7.8 (4.2)	72.2 (38.4)	115.7 (61.6)	171.3	1.48
Munger	0.2 (0.1)	0.6 (0.4)	1.9 (1.4)	20.9 (14.9)	96.2 (68.8)	43.5 (31.1)	49.7	1.14
Sheikhpura	0.0 (0.0)	0.3 (0.5)	1.6 (2.6)	3.5 (5.6)	17.4 (28.0)	44.7 (72)	46.7	1.04
Lakhisarai	0.1 (0.1)	0.4 (0.3)	6.3 (4.9)	38.9 (30.2)	81.9 (63.7)	46.7 (36.3)	72.8	1.56
Jamui	1.6 (0.5)	2.1 (0.7)	16.1 (5.3)	63.7 (20.9)	259.6 (85.0)	45.6 (14.9)	68.3	1.50
Khagaria	0.2 (0.1)	3.1 (2.1)	2.2 (1.5)	6.1 (4.1)	57.0 (38.2)	92.3 (61.8)	133.2	1.44
Bhagalpur	0.6 (0.2)	6.7 (2.6)	4.9 (1.9)	19.0 (7.5)	127.0 (49.9)	127.3 (50.1)	158.5	1.25
Banka	1.1 (0.4)	7.5 (2.5)	11.2 (3.7)	26.6 (8.7)	186.2 (60.9)	119.4 (39.1)	156.6	1.31
Saharsa	1.1 (0.7)	4.4 (2.7)	3.7 (2.2)	9.0 (5.5)	58.6 (35.6)	106 (64.4)	203.1	1.92
Supaul	0.3 (0.1)	3.1 (1.3)	9.5 (4.0)	4.9 (2.1)	91.3 (38.3)	147.3 (61.7)	239.5	1.63
Madhepura	0.1 (0.1)	7.2 (4.0)	1 (0.6)	12.0 (6.7)	55.9 (31.1)	123.7 (68.9)	195.3	1.58
Purnea	0.1 (0.0)	8.9 (2.8)	4.7 (1.5)	59.6 (19)	133.0 (42.4)	180.9 (57.6)	231.6	1.28
Kishanganj	0.4 (0.2)	5.2 (2.7)	3.0 (1.6)	25.8 (13.6)	82.9 (43.8)	106.2 (56.2)	147.5	1.39
Araria	0.2 (0.1)	19.1 (7.0)	3.5 (1.3)	36.8 (13.5)	118.5 (43.6)	153.2 (56.4)	277.6	1.81
Katihar	0.1 (0.0)	11.1 (3.8)	5.9 (2.0)	7.7 (2.6)	107.7 (37.0)	183.7 (63.0)	257.6	1.40
<b>Bihar</b>	<b>15.5 (0.2)</b>	<b>247.4 (2.6)</b>	<b>120.5 (1.3)</b>	<b>913.5 (9.8)</b>	<b>4107.3 (43.9)</b>	<b>5252.3 (56.1)</b>	<b>7580.2</b>	<b>1.44</b>

Note : Figures in the parentheses denotes percentage

Source : Directorate of Economics and Statistics, GOB

(Concluded)

**Table A 3.3 : District-wise Area, Production and Productivity of Rice**

(Area in '000 hectare/Production in '000 tonnes/ Productivity in kg/ha)

Districts	2014-15			2015-16		
	Area	Production	Productivity	Area	Production	Productivity
Patna	63.66 (2.0)	163.12 (2.0)	2562 (19)	63.68 (2)	192.85 (2.8)	3029 (9)
Nalanda	83.95 (2.6)	217.10 (2.6)	2586 (18)	106.5 (3.3)	308.51 (4.5)	2897 (10)
Bhojpur	99.76 (3.1)	287.84 (3.5)	2885 (11)	88.04 (2.7)	305.03 (4.5)	3465 (4)
Buxar	82.23 (2.5)	228.89 (2.8)	2783 (13)	83.82 (2.6)	258.64 (3.8)	3086 (8)
Rohtas	196.51 (6.0)	820.98 (10.0)	4178 (02)	196.66 (6.1)	759.63 (11.2)	3863 (3)
Kaimur	102.38 (3.1)	281.88 (3.4)	2753 (15)	109.16 (3.4)	282.27 (4.1)	2586 (13)
Gaya	105.36 (3.2)	338.35 (4.1)	3211 (08)	99.93 (3.1)	239.92 (3.5)	2401 (15)
Jehanabad	35.88 (1.1)	118.14 (1.4)	3293 (07)	35.88 (1.1)	96.1 (1.4)	2679 (11)
Arwal	26.05 (0.8)	114.54 (1.4)	4398 (01)	23.95 (0.7)	74.84 (1.1)	3124 (7)
Nawada	77.23 (2.4)	237.02 (2.9)	3069 (09)	68.35 (2.1)	173.47 (2.6)	2538 (14)
Aurangabad	164.02 (5)	619.2 (7.5)	3775 (04)	160.23 (5)	553.35 (8.1)	3453 (5)
Saran	72.55 (2.2)	164.72 (2.0)	2271 (21)	68.74 (2.1)	74.25 (1.1)	1080 (31)
Siwan	92.63 (2.8)	190.88 (2.3)	2061 (26)	90.96 (2.8)	143.48 (2.1)	1577 (29)
Gopalganj	84.78 (2.6)	165.82 (2.0)	1956 (29)	84.25 (2.6)	70.28 (1)	834 (36)
West Champaran	152.98 (4.7)	368.15 (4.5)	2407 (20)	144.59 (4.5)	266.72 (3.9)	1845 (25)
East Champaran	199.56 (6.1)	347.77 (4.2)	1743 (34)	193.28 (6)	139.59 (2.1)	722 (37)
Muzaffarpur	140.37 (4.3)	285.34 (3.5)	2033 (28)	113.99 (3.5)	108.34 (1.6)	951 (35)
Sitamarhi	96.59 (3.0)	182 (2.2)	1884 (30)	96.75 (3)	93.52 (1.4)	967 (34)
Sheohar	22.89 (0.7)	42.02 (0.5)	1836 (32)	22.66 (0.7)	12.46 (0.2)	550 (38)
Vaishali	46.18 (1.4)	98.25 (1.2)	2127 (24)	43.72 (1.4)	44.58 (0.7)	1020 (33)
Darbhanga	78.98 (2.4)	134.78 (1.6)	1706 (35)	78.96 (2.4)	110.7 (1.6)	1402 (30)
Madhubani	208.39 (6.4)	324.57 (3.9)	1558 (38)	204.78 (6.3)	211.88 (3.1)	1035 (32)
Samastipur	88.87 (2.7)	186.44 (2.3)	2098 (25)	99.45 (3.1)	167.44 (2.5)	1684 (27)
Begusarai	22.33 (0.7)	37.45 (0.5)	1677 (36)	18.53 (0.6)	29.35 (0.4)	1584 (28)
Munger	22.26 (0.7)	61.79 (0.7)	2776 (14)	27.39 (0.8)	71.85 (1.1)	2623 (12)
Sheikhpura	26.74 (0.8)	101.86 (1.2)	3810 (03)	24.72 (0.8)	95.71 (1.4)	3872 (2)
Lakhisarai	15.87 (0.5)	58.52 (0.7)	3688 (05)	15.87 (0.5)	67.77 (1)	4271 (1)
Jamui	42.84 (1.3)	87.45 (1.1)	2042 (27)	70.38 (2.2)	132.22 (1.9)	1879 (23)
Khagaria	23.78 (0.7)	39.48 (0.5)	1660 (37)	20.92 (0.6)	38.79 (0.6)	1854 (24)
Bhagalpur	32.35 (1.0)	95.83 (1.2)	2962 (10)	32.91 (1)	77.53 (1.1)	2356 (16)
Banka	91.86 (2.8)	323.63 (3.9)	3523 (06)	94.57 (2.9)	316.98 (4.7)	3352 (6)
Saharsa	90.32 (2.8)	166.37 (2.0)	1842 (31)	79.25 (2.5)	157.26 (2.3)	1984 (20)
Supaul	112.08 (3.4)	200.96 (2.4)	1793 (33)	99.19 (3.1)	188.01 (2.8)	1895 (22)
Madhepura	70.85 (2.2)	153.77 (1.9)	2170 (23)	79.64 (2.5)	162.1 (2.4)	2035 (19)
Purnea	85.48 (2.6)	229.11 (2.8)	2680 (16)	86.06 (2.7)	167.11 (2.5)	1942 (21)
Kishanganj	77.62 (2.4)	221.12 (2.7)	2849 (12)	78.34 (2.4)	138.93 (2)	1773 (26)
Araria	121.29 (3.7)	266.92 (3.2)	2201 (22)	122.01 (3.8)	252.08 (3.7)	2066 (18)
Katihar	105.95 (3.2)	279.58 (3.4)	2639 (17)	104.23 (3.2)	218.71 (3.2)	2098 (17)
<b>Bihar</b>	<b>3263.37 (100.0)</b>	<b>8241.62 (100.0)</b>	<b>2525</b>	<b>3232.31 (100)</b>	<b>6802.22 (100)</b>	<b>2104</b>

Note : Figure in parentheses denotes percentage and ranking for productivity

Source : Department of Agriculture, GOB



**Table A 3.4 : District-wise Area, Production and Productivity of Wheat**

(Area in '000 hectare/Production in '000 tonnes/ Productivity in kg/ha)

Districts	2014-15			2015-16		
	Area	Production	Productivity	Area	Production	Productivity
Patna	60.6 (2.8)	170.08 (4.8)	2807 (02)	60.07 (2.8)	143.99 (3.0)	2397 (17)
Nalanda	89.26 (4.1)	184.64 (5.2)	2069 (12)	84.66 (4.0)	211.69 (4.5)	2500 (13)
Bhojpur	74.57 (3.5)	136.53 (3.8)	1831 (16)	74.45 (3.5)	181.38 (3.8)	2436 (16)
Buxar	79.48 (3.7)	125.28 (3.5)	1576 (23)	90.52 (4.3)	245.58 (5.2)	2713 (07)
Rohtas	144.73 (6.7)	300.1 (8.4)	2074 (11)	131.58 (6.2)	294.21 (6.2)	2236 (25)
Kaimur	84.5 (3.9)	188.25 (5.3)	2228 (06)	77.97 (3.7)	177.97 (3.8)	2283 (22)
Gaya	72.15 (3.3)	178.51 (5)	2474 (03)	71.07 (3.4)	175.09 (3.7)	2464 (15)
Jehanabad	23.39 (1.1)	66.85 (1.9)	2859 (01)	23.39 (1.1)	61.71 (1.3)	2639 (08)
Arwal	10.78 (0.5)	18.37 (0.5)	1705 (20)	12.78 (0.6)	28.3 (0.6)	2215 (26)
Nawada	45.53 (2.1)	81.59 (2.3)	1792 (17)	42.92 (2.0)	86.53 (1.8)	2016 (29)
Aurangabad	79.12 (3.7)	160.18 (4.5)	2024 (13)	66.77 (3.2)	152.21 (3.2)	2280 (23)
Saran	84.46 (3.9)	170.37 (4.8)	2017 (14)	87.05 (4.1)	182.64 (3.9)	2098 (27)
Siwan	90.2 (4.2)	171.37 (4.8)	1900 (15)	90.2 (4.3)	181.03 (3.8)	2007 (30)
Gopalganj	73.94 (3.4)	71.48 (2)	967 (34)	76.75 (3.6)	174.19 (3.7)	2269 (24)
West Champaran	65.59 (3)	80.07 (2.2)	1221 (27)	61.67 (2.9)	147.1 (3.1)	2385 (18)
East Champaran	128.68 (6)	87.58 (2.5)	681 (37)	121.13 (5.7)	133.35 (2.8)	1101 (38)
Muzaffarpur	88.36 (4.1)	129.82 (3.6)	1469 (25)	80.08 (3.8)	124.27 (2.6)	1552 (35)
Sitamarhi	88.03 (4.1)	76.76 (2.2)	872 (35)	88.03 (4.2)	283.07 (6.0)	3216 (02)
Sheohar	16.62 (0.8)	22.91 (0.6)	1378 (26)	13.34 (0.6)	23.17 (0.5)	1736 (33)
Vaishali	44.81 (2.1)	93.82 (2.6)	2094 (09)	40.88 (1.9)	75.82 (1.6)	1855 (31)
Darbhanga	59.4 (2.8)	89.18 (2.5)	1501 (24)	59.35 (2.8)	172.95 (3.7)	2914 (05)
Madhubani	90.05 (4.2)	70.79 (2)	786 (36)	90.46 (4.3)	128.71 (2.7)	1423 (37)
Samastipur	55.74 (2.6)	116.64 (3.3)	2093 (10)	46.61 (2.2)	107.84 (2.3)	2314 (20)
Begusarai	53.92 (2.5)	64.16 (1.8)	1190 (28)	60.6 (2.9)	139.94 (3)	2309 (21)
Munger	14.17 (0.7)	23.13 (0.6)	1633 (21)	14.38 (0.7)	24.44 (0.5)	1700 (34)
Sheikhpura	25.25 (1.2)	55.17 (1.5)	2185 (08)	22.19 (1.1)	55.47 (1.2)	2500 (14)
Lakhisarai	29.7 (1.4)	67.33 (1.9)	2267 (05)	29.7 (1.4)	70.16 (1.5)	2362 (19)
Jamui	11.33 (0.5)	13.24 (0.4)	1168 (30)	52.12 (2.5)	78.85 (1.7)	1513 (36)
Khagaria	30.37 (1.4)	33.95 (1)	1118 (33)	29.36 (1.4)	82.35 (1.7)	2805 (06)
Bhagalpur	46.38 (2.2)	52.83 (1.5)	1139 (32)	46.23 (2.2)	143.02 (3.0)	3094 (03)
Banka	25.85 (1.2)	45.68 (1.3)	1767 (19)	24.81 (1.2)	62.59 (1.3)	2523 (12)
Saharsa	50.22 (2.3)	110.99 (3.1)	2210 (07)	49.84 (2.4)	103.65 (2.2)	2080 (28)
Supaul	53.75 (2.5)	84.93 (2.4)	1580 (22)	53.51 (2.5)	94.61 (2.0)	1768 (32)
Madhepura	31.09 (1.4)	71.46 (2.0)	2298 (04)	33.27 (1.6)	97.54 (2.1)	2932 (04)
Purnea	39.73 (1.8)	23.95 (0.7)	603 (38)	26.73 (1.3)	93.13 (2.0)	3484 (01)
Kishanganj	14.08 (0.7)	16.66 (0.5)	1183 (29)	14.85 (0.7)	38.48 (0.8)	2591 (10)
Araria	39.14 (1.8)	45.7 (1.3)	1168 (31)	25.99 (1.2)	66.99 (1.4)	2577 (11)
Katihar	39.46 (1.8)	69.87 (2.0)	1771 (18)	35.46 (1.7)	92.44 (2.0)	2607 (09)
<b>Bihar</b>	<b>2154.42 (100.0)</b>	<b>3570.21 (100.0)</b>	<b>1657</b>	<b>2110.75 (100.0)</b>	<b>4736.45 (100)</b>	<b>2244</b>

Note : Figure in parentheses denotes percentage and ranking for productivity

Source : Department of Agriculture, GOB

**Table A 3.5 : District-wise Area, Production and Productivity of Maize**

(Area in '000 hectare/Production in '000 tonnes/ Productivity in kg/ha)

Districts	2014-15			2015-16		
	Area	Production	Productivity	Area	Production	Productivity
Patna	6.78 (1.0)	21.91 (0.9)	3232 (15)	6.73 (1)	16.4 (0.7)	2436 (28)
Nalanda	5.9 (0.8)	18 (0.7)	3053 (17)	6.33 (0.9)	21.2 (0.8)	3351 (16)
Bhojpur	3.45 (0.5)	8.71 (0.4)	2523 (28)	6.61 (0.9)	17.43 (0.7)	2639 (27)
Buxar	1.36 (0.2)	2.03 (0.1)	1491 (37)	1.15 (0.2)	1.67 (0.1)	1448 (37)
Rohtas	0.05 (0.0)	0.13 (0.0)	2549 (26)	0.09 (0)	0.21 (0)	2477 (29)
Kaimur	0.38 (0.1)	0.45 (0.0)	1200 (38)	0.33 (0)	0.67 (0)	2012 (34)
Gaya	7.43 (1.1)	16.68 (0.7)	2245 (32)	5.74 (0.8)	25.51 (1)	4441 (5)
Jehanabad	0.45 (0.1)	1.53 (0.1)	3392 (10)	0.45 (0.1)	1.81 (0.1)	4054 (9)
Arwal	0.64 (0.1)	2.15 (0.1)	3357 (13)	0.56 (0.1)	2.34 (0.1)	4201 (8)
Nawada	1.93 (0.3)	5.03 (0.2)	2609 (25)	1.69 (0.2)	4.55 (0.2)	2688 (25)
Aurangabad	0.35 (0.0)	0.71 (0.0)	2034 (34)	0.21 (0)	0.83 (0)	3855 (12)
Saran	27.82 (3.9)	80.76 (3.3)	2903 (19)	27.11 (3.8)	87.89 (3.5)	3242 (18)
Siwan	18.16 (2.6)	44.5 (1.8)	2451 (29)	17.97 (2.5)	43.28 (1.7)	2409 (30)
Gopalganj	16.69 (2.4)	45.2 (1.8)	2708 (24)	11.7 (1.7)	33.79 (1.3)	2888 (23)
W. Champaran	9.83 (1.4)	28.32 (1.1)	2883 (20)	7.4 (1)	22.53 (0.9)	3043 (20)
E. Champaran	52.23 (7.4)	102.58 (4.1)	1964 (35)	46.51 (6.6)	67.04 (2.7)	1441 (38)
Muzaffarpur	48.77 (6.9)	191.89 (7.7)	3935 (07)	39.16 (5.6)	89.85 (3.6)	2294 (31)
Sitamarhi	5.49 (0.8)	18.6 (0.8)	3385 (11)	5.42 (0.8)	21.51 (0.9)	3972 (11)
Sheohar	1.82 (0.3)	6.45 (0.3)	3533 (09)	1.61 (0.2)	4.73 (0.2)	2936 (22)
Vaishali	32.33 (4.6)	131.45 (5.3)	4067 (06)	31.86 (4.5)	127.9 (5.1)	4014 (10)
Darbhanga	14.76 (2.1)	43.24 (1.7)	2930 (18)	14.77 (2.1)	72.4 (2.9)	4903 (3)
Madhubani	0.62 (0.1)	1.69 (0.1)	2728 (23)	0.59 (0.1)	1.87 (0.1)	3187 (19)
Samastipur	56.89 (8.1)	156 (6.3)	2742 (22)	63.59 (9)	169.64 (6.7)	2668 (26)
Begusarai	47.99 (6.8)	121.66 (4.9)	2535 (27)	56.5 (8)	121.72 (4.8)	2154 (32)
Munger	4.64 (0.7)	13.14 (0.5)	2830 (21)	4.51 (0.6)	9.64 (0.4)	2137 (33)
Sheikhpura	0.66 (0.1)	1.06 (0.0)	1591 (36)	0.65 (0.1)	1.21 (0)	1851 (35)
Lakhisarai	5.11 (0.7)	11.62 (0.5)	2276 (30)	4.7 (0.7)	7.17 (0.3)	1524 (36)
Jamui	2.8 (0.4)	6.35 (0.3)	2269 (31)	5.41 (0.8)	14.78 (0.6)	2732 (24)
Khagaria	60.16 (8.5)	214.83 (8.7)	3571 (08)	55.24 (7.8)	166.76 (6.6)	3019 (21)
Bhagalpur	46.06 (6.5)	155.81 (6.3)	3383 (12)	44.9 (6.4)	233.34 (9.3)	5197 (2)
Banka	11.03 (1.6)	35.93 (1.4)	3257 (14)	10.88 (1.5)	46.55 (1.8)	4279 (7)
Saharsa	28.24 (4.0)	128.11 (5.2)	4536 (03)	29.83 (4.2)	111.24 (4.4)	3729 (14)
Supaul	12.41 (1.8)	50.82 (2.1)	4096 (05)	10.26 (1.5)	37.87 (1.5)	3690 (15)
Madhepura	43.42 (6.1)	229.47 (9.3)	5285 (02)	43.52 (6.2)	144.78 (5.8)	3326 (17)
Purnea	35.6 (5.0)	77.57 (3.1)	2179 (33)	39.5 (5.6)	176.17 (7)	4460 (4)
Kishanganj	3.03 (0.4)	9.47 (0.4)	3121 (16)	3.28 (0.5)	12.88 (0.5)	3921 (13)
Araria	44.31 (6.3)	189.3 (7.6)	4272 (04)	52.6 (7.5)	232.05 (9.2)	4412 (6)
Katihar	46.94 (6.6)	305.62 (12.3)	6510 (01)	45.6 (6.5)	365.95 (14.5)	8025 (1)
<b>Bihar</b>	<b>706.52 (100.0)</b>	<b>2478.75 (100.0)</b>	<b>3508</b>	<b>704.96 (100)</b>	<b>2517.10 (100)</b>	<b>3571</b>

Note : Figure in parentheses denotes percentage and ranking for productivity

Source : Department of Agriculture, GOB

**Table A 3.6 : District-wise Area, Production and Productivity of Pulses**

(Area in '000 hectare/Production in '000 tonnes/ Productivity in kg/ha)

Districts	2014-15			2015-16		
	Area	Production	Productivity	Area	Production	Productivity
Patna	46.5 (9.2)	71.3 (16.6)	1533 (2)	47.01 (9.4)	49.74 (11.8)	1058 (9)
Nalanda	22.62 (4.5)	22.98 (5.4)	1016 (11)	24.47 (4.9)	27.81 (6.6)	1136 (6)
Bhojpur	19.17 (3.8)	17.6 (4.1)	918 (15)	20.73 (4.2)	18.25 (4.3)	880 (20)
Buxar	12.33 (2.4)	7.1 (1.7)	576 (31)	8.27 (1.7)	7.77 (1.8)	940 (12)
Rohtas	10.44 (2.1)	11.84 (2.8)	1134 (6)	9.36 (1.9)	11.82 (2.8)	1263 (2)
Kaimur	12.59 (2.5)	19.54 (4.6)	1552 (1)	11.77 (2.4)	10.81 (2.6)	919 (14)
Gaya	19.8 (3.9)	17.76 (4.1)	897 (16)	19.65 (3.9)	22.48 (5.3)	1144 (5)
Jehanabad	15.55 (3.1)	18.03 (4.2)	1159 (4)	15.55 (3.1)	14.22 (3.4)	914 (15)
Arwal	5.82 (1.2)	5.5 (1.3)	945 (14)	6.3 (1.3)	5.29 (1.3)	840 (25)
Nawada	9.92 (2.0)	6.21 (1.4)	627 (29)	8.64 (1.7)	10.23 (2.4)	1184 (3)
Aurangabad	35.58 (7)	28.83 (6.7)	810 (21)	33.38 (6.7)	26.01 (6.2)	779 (29)
Saran	3.37 (0.7)	3.75 (0.9)	1111 (9)	3.05 (0.6)	2.65 (0.6)	869 (22)
Siwan	3.77 (0.7)	4.3 (1.0)	1138 (5)	3.76 (0.8)	3.43 (0.8)	912 (16)
Gopalganj	2.14 (0.4)	2.42 (0.6)	1129 (7)	1.93 (0.4)	1.67 (0.4)	865 (23)
West Champaran	13.58 (2.7)	7.55 (1.8)	556 (32)	11.18 (2.2)	7.63 (1.8)	682 (32)
East Champaran	13.69 (2.7)	7.11 (1.7)	519 (35)	11.33 (2.3)	10.3 (2.4)	909 (17)
Muzaffarpur	28.72 (5.7)	15.72 (3.7)	547 (33)	27.04 (5.4)	13.52 (3.2)	500 (35)
Sitamarhi	6.2 (1.2)	2.58 (0.6)	416 (37)	6.19 (1.2)	4.69 (1.1)	758 (30)
Sheohar	2.39 (0.5)	1.28 (0.3)	538 (34)	2.02 (0.4)	1.25 (0.3)	616 (33)
Vaishali	8.93 (1.8)	5.62 (1.3)	629 (28)	7.98 (1.6)	4.41 (1.0)	553 (34)
Darbhanga	11.95 (2.4)	14.35 (3.3)	1201 (3)	11.72 (2.4)	10.39 (2.5)	887 (19)
Madhubani	15.01 (3)	9.65 (2.2)	643 (25)	15.66 (3.1)	11.08 (2.6)	709 (31)
Samastipur	15.78 (3.1)	10.15 (2.4)	643 (26)	17.52 (3.5)	14.15 (3.4)	808 (26)
Begusarai	4.5 (0.9)	4.36 (1.0)	970 (13)	5.1 (1.0)	5.2 (1.2)	1020 (11)
Munger	2.22 (0.4)	1.88 (0.4)	845 (18)	2.26 (0.5)	2.45 (0.6)	1084 (7)
Sheikhpura	6.31 (1.2)	7.06 (1.6)	1118 (8)	6.23 (1.3)	8.94 (2.1)	1437 (1)
Lakhisarai	13.19 (2.6)	11.12 (2.6)	843 (19)	11.17 (2.2)	11.68 (2.8)	1046 (10)
Jamui	6.32 (1.2)	5.03 (1.2)	797 (22)	13.44 (2.7)	15.65 (3.7)	1164 (4)
Khagaria	7.85 (1.6)	6.9 (1.6)	879 (17)	8.03 (1.6)	7.48 (1.8)	932 (13)
Bhagalpur	15.22 (3.0)	9.58 (2.2)	630 (27)	14.75 (3.0)	11.64 (2.8)	789 (27)
Banka	6.4 (1.3)	4.98 (1.2)	778 (23)	6.53 (1.3)	5.51 (1.3)	844 (24)
Saharsa	20.45 (4.0)	5.79 (1.3)	283 (38)	20.23 (4.1)	7.9 (1.9)	391 (38)
Supaul	30.13 (6.0)	17.73 (4.1)	589 (30)	29.71 (6)	13.26 (3.2)	446 (37)
Madhepura	20.93 (4.1)	9.76 (2.3)	466 (36)	21.66 (4.3)	9.73 (2.3)	449 (36)
Purnea	7.17 (1.4)	5.21 (1.2)	727 (24)	5.76 (1.2)	5.22 (1.2)	906 (18)
Kishanganj	9.2 (1.8)	9.83 (2.3)	1068 (10)	9.38 (1.9)	7.36 (1.7)	785 (28)
Araria	10.08 (2.0)	8.41 (2.0)	835 (20)	9.52 (1.9)	8.38 (2.0)	880 (21)
Katihar	10.27 (2.0)	10.13 (2.4)	987 (12)	10.02 (2.0)	10.8 (2.6)	1078 (8)
<b>Bihar</b>	<b>506.08 (100)</b>	<b>428.93 (100)</b>	<b>848</b>	<b>498.3 (100)</b>	<b>420.78 (100)</b>	<b>844</b>

Note : Figure in parentheses denotes percentage and ranking for productivity

Source : Department of Agriculture, GOB

**Table A 3.7 : District-wise Area and Production of Important Vegetables**

(Area in '000 hectare/Production in '000 tonnes)

Districts	Potato				Onion			
	2014-15		2015-16		2014-15		2015-16	
	Area	Production	Area	Production	Area	Production	Area	Production
Patna	12.5 (3.9)	360 (5.7)	12.51 (3.9)	360 (5.7)	2.6 (4.8)	63 (5.1)	2.6 (4.8)	63 (5.1)
Nalanda	20.8 (6.5)	600 (9.5)	20.81 (6.5)	600 (9.5)	6 (11.1)	160 (12.8)	6 (11.1)	160 (12.8)
Bhojpur	6.3 (2)	172.7 (2.7)	6.3 (2)	172.7 (2.7)	1.2 (2.2)	26 (2.1)	1.2 (2.2)	26 (2.1)
Buxar	3.9 (1.2)	105.1 (1.7)	3.9 (1.2)	105.1 (1.7)	0.9 (1.7)	22.6 (1.8)	0.9 (1.7)	22.6 (1.8)
Rohtas	8 (2.5)	206.9 (3.3)	8 (2.5)	206.9 (3.3)	1.2 (2.2)	27.3 (2.2)	1.2 (2.2)	27.3 (2.2)
Kaimur	3.2 (1)	84 (1.3)	3.22 (1)	84 (1.3)	1 (1.9)	20.7 (1.7)	1 (1.9)	20.7 (1.7)
Gaya	8.1 (2.5)	8.1 (0.1)	8.1 (2.5)	8.1 (0.1)	1.4 (2.6)	1.4 (0.1)	1.4 (2.6)	1.4 (0.1)
Jehanabad	2.8 (0.9)	73.8 (1.2)	2.81 (0.9)	73.8 (1.2)	0.5 (0.9)	13.1 (1.1)	0.5 (0.9)	13.1 (1.1)
Arwal	2.2 (0.7)	59.1 (0.9)	2.2 (0.7)	59.1 (0.9)	0.4 (0.7)	9.9 (0.8)	0.4 (0.7)	9.9 (0.8)
Nawada	4.2 (1.3)	100 (1.6)	4.2 (1.3)	100 (1.6)	1 (1.9)	21.8 (1.7)	1 (1.9)	21.8 (1.7)
Aurangabad	4.5 (1.4)	115.8 (1.8)	4.5 (1.4)	115.8 (1.8)	1.1 (2)	25.4 (2)	1.12 (2.1)	25.42 (2)
Saran	10.8 (3.4)	280.5 (4.4)	10.8 (3.4)	280.5 (4.4)	1 (1.9)	18 (1.4)	1 (1.9)	18 (1.4)
Siwan	7.7 (2.4)	205.9 (3.2)	7.7 (2.4)	205.9 (3.2)	0.9 (1.7)	21 (1.7)	0.9 (1.7)	21 (1.7)
Gopalganj	9.1 (2.9)	242.7 (3.8)	9.12 (2.9)	242.7 (3.8)	0.9 (1.7)	18.6 (1.5)	0.9 (1.7)	18.6 (1.5)
W. Champaran	9.2 (2.9)	250 (3.9)	9.27 (2.9)	250 (3.9)	2.4 (4.4)	62 (5)	2.4 (4.4)	62 (5)
E. Champaran	8.9 (2.8)	240.9 (3.8)	8.9 (2.8)	240.9 (3.8)	2.4 (4.4)	59.3 (4.8)	2.4 (4.4)	59.3 (4.8)
Muzaffarpur	85.5 (26.8)	254 (4)	85.5 (26.8)	254 (4)	2.6 (4.8)	67 (5.4)	2.6 (4.8)	67 (5.4)
Sitamarhi	5.1 (1.6)	136.5 (2.2)	5.1 (1.6)	136.5 (2.2)	1.3 (2.4)	32.5 (2.6)	1.3 (2.4)	32.5 (2.6)
Sheohar	3.2 (1)	83.6 (1.3)	3.2 (1)	83.6 (1.3)	0.7 (1.3)	17.3 (1.4)	0.7 (1.3)	17.3 (1.4)
Vaishali	9.9 (3.1)	290.5 (4.6)	9.91 (3.1)	290.5 (4.6)	1.8 (3.3)	44 (3.5)	1.8 (3.3)	44 (3.5)
Darbhanga	5.8 (1.8)	154.9 (2.4)	5.85 (1.8)	154.9 (2.4)	1 (1.9)	25 (2)	1 (1.9)	25 (2)
Madhubani	7.7 (2.4)	206.9 (3.3)	7.73 (2.4)	206.9 (3.3)	1.1 (2)	25.3 (2)	1.1 (2)	25.3 (2)
Samastipur	9.2 (2.9)	250 (3.9)	9.2 (2.9)	250 (3.9)	1.4 (2.6)	30.4 (2.4)	1.4 (2.6)	30.4 (2.4)
Begusarai	6 (1.9)	168 (2.6)	6 (1.9)	168 (2.6)	2 (3.7)	42.4 (3.4)	2 (3.7)	42.4 (3.4)
Munger	5.3 (1.7)	142.1 (2.2)	5.3 (1.7)	142.1 (2.2)	1 (1.9)	24.5 (2)	1 (1.9)	24.5 (2)
Sheikhpura	4.2 (1.3)	120 (1.9)	4.2 (1.3)	120 (1.9)	1.3 (2.4)	30 (2.4)	1.3 (2.4)	30 (2.4)
Lakhisarai	2.4 (0.8)	63.5 (1)	2.4 (0.8)	63.5 (1)	0.4 (0.7)	10.1 (0.8)	0.4 (0.7)	10.1 (0.8)
Jamui	2.6 (0.8)	67.3 (1.1)	2.6 (0.8)	67.3 (1.1)	0.8 (1.5)	22.2 (1.8)	0.8 (1.5)	22.2 (1.8)
Khagaria	4.1 (1.3)	108.6 (1.7)	4.1 (1.3)	108.6 (1.7)	0.8 (1.5)	17.3 (1.4)	0.8 (1.5)	17.3 (1.4)
Bhagalpur	6.3 (2)	168.3 (2.7)	6.31 (2)	168.31 (2.7)	1.6 (3)	40.3 (3.2)	1.6 (3)	40.32 (3.2)
Banka	4.9 (1.5)	125.7 (2)	4.9 (1.5)	125.7 (2)	0.7 (1.3)	15.5 (1.2)	0.7 (1.3)	15.5 (1.2)
Saharsa	5.7 (1.8)	151.6 (2.4)	5.7 (1.8)	151.6 (2.4)	0.6 (1.1)	15 (1.2)	0.6 (1.1)	15 (1.2)
Supaul	4.5 (1.4)	116 (1.8)	4.5 (1.4)	116 (1.8)	0.4 (0.7)	8.5 (0.7)	0.4 (0.7)	8.5 (0.7)
Madhepura	5.3 (1.7)	140.1 (2.2)	5.3 (1.7)	140.1 (2.2)	1 (1.9)	22.6 (1.8)	1 (1.9)	22.6 (1.8)
Purnea	5.2 (1.6)	137.3 (2.2)	5.2 (1.6)	137.3 (2.2)	1.8 (3.3)	42.5 (3.4)	1.8 (3.3)	42.5 (3.4)
Kishanganj	4.5 (1.4)	117.9 (1.9)	4.5 (1.4)	117.9 (1.9)	1.4 (2.6)	31.4 (2.5)	1.4 (2.6)	31.4 (2.5)
Araria	3.7 (1.2)	89.4 (1.4)	3.7 (1.2)	89.4 (1.4)	1.5 (2.8)	30.3 (2.4)	1.5 (2.8)	30.3 (2.4)
Katihar	5.6 (1.8)	147.8 (2.3)	5.6 (1.8)	147.8 (2.3)	3.9 (7.2)	83.1 (6.7)	3.9 (7.2)	83.1 (6.7)
<b>Bihar</b>	318.9 (100)	6345.5 (100)	319.13 (100)	6345.52 (100)	54 (100)	1247.3 (100)	54.03 (100)	1247.34 (100)

Note : Figure in parentheses denotes percentage

Source : Department of Agriculture, GOB

(Contd.)

**Table A 3.7 : District-wise Area and Production of Important Vegetables (Contd.)**

(Area in '000 hectare/Production in '000 tonnes)

Districts	Cauliflower				Brinjal			
	2014-15		2015-16		2014-15		2015-16	
	Area	Production	Area	Production	Area	Production	Area	Production
Patna	3.8 (5.8)	1.3 (0.1)	3.8 (5.8)	1.3 (0.1)	1.9 (3.3)	49 (4.3)	1.91 (3.3)	49 (4.3)
Nalanda	3.1 (4.7)	60 (6)	3.1 (4.7)	60 (6)	7.2 (12.5)	148.5 (13)	7.22 (12.5)	148.5 (13)
Bhojpur	1.1 (1.7)	21.5 (2.1)	1.1 (1.7)	21.5 (2.1)	1.2 (2.1)	28.9 (2.5)	1.2 (2.1)	28.9 (2.5)
Buxar	0.7 (1.1)	12.7 (1.3)	0.7 (1.1)	12.7 (1.3)	0.8 (1.4)	16.9 (1.5)	0.8 (1.4)	16.9 (1.5)
Rohtas	1.3 (2)	21.9 (2.2)	1.3 (2)	21.9 (2.2)	1 (1.7)	18.8 (1.6)	1 (1.7)	18.8 (1.7)
Kaimur	0.8 (1.2)	13.5 (1.3)	0.8 (1.2)	13.5 (1.3)	0.6 (1)	14.3 (1.3)	0.6 (1)	14.3 (1.3)
Gaya	2 (3)	2 (0.2)	2 (3)	2 (0.2)	1.6 (2.8)	1.6 (0.1)	1.6 (2.8)	1.6 (0.1)
Jehanabad	0.5 (0.8)	9.7 (1)	0.5 (0.8)	9.7 (1)	0.7 (1.2)	13.7 (1.2)	0.7 (1.2)	13.7 (1.2)
Arwal	0.4 (0.6)	8.1 (0.8)	0.4 (0.6)	8.1 (0.8)	0.4 (0.7)	9.5 (0.8)	0.4 (0.7)	9.5 (0.8)
Nawada	1.4 (2.1)	22.9 (2.3)	1.4 (2.1)	22.9 (2.3)	1.8 (3.1)	26.8 (2.3)	1.8 (3.1)	26.8 (2.4)
Aurangabad	1.4 (2.1)	28.2 (2.8)	1.4 (2.1)	28.2 (2.8)	1.1 (1.9)	22.5 (2)	1.1 (1.9)	22.51 (2)
Saran	2.9 (4.4)	38 (3.8)	2.9 (4.4)	38 (3.8)	1.8 (3.1)	38.5 (3.4)	1.8 (3.1)	38.5 (3.4)
Siwan	1.6 (2.4)	28.4 (2.8)	1.6 (2.4)	28.4 (2.8)	1.6 (2.8)	35 (3.1)	1.6 (2.8)	35 (3.1)
Gopalganj	1.9 (2.9)	33.9 (3.4)	1.9 (2.9)	33.9 (3.4)	1.4 (2.4)	30.4 (2.7)	1.42 (2.5)	30.4 (2.7)
W. Champaran	2.9 (4.4)	53.4 (5.3)	2.9 (4.4)	53.4 (5.3)	2 (3.5)	45 (3.9)	2 (3.5)	45 (4)
E. Champaran	2.9 (4.4)	39.3 (3.9)	2.91 (4.4)	39.3 (3.9)	1.6 (2.8)	36.3 (3.2)	1.6 (2.8)	36.3 (3.2)
Muzaffarpur	3.5 (5.3)	68 (6.8)	3.5 (5.3)	68 (6.8)	2.9 (5)	36.6 (3.2)	2.9 (5)	36.6 (3.2)
Sitamarhi	1.4 (2.1)	24.2 (2.4)	1.4 (2.1)	24.2 (2.4)	1.3 (2.3)	26.9 (2.4)	1.3 (2.3)	26.9 (2.4)
Sheohar	0.8 (1.2)	15 (1.5)	0.8 (1.2)	15 (1.5)	0.7 (1.2)	14.1 (1.2)	0.7 (1.2)	14.1 (1.2)
Vaishali	6 (9.1)	100 (10)	6 (9.1)	100 (10)	3.3 (5.7)	72.57 (6.4)	3.21 (5.6)	69 (6.1)
Darbhanga	1.6 (2.4)	28.5 (2.8)	1.6 (2.4)	28.5 (2.8)	2.5 (4.3)	51.7 (4.5)	2.5 (4.3)	51.7 (4.5)
Madhubani	2.6 (4)	45.8 (4.6)	2.6 (4)	45.8 (4.6)	2.1 (3.6)	43.2 (3.8)	2.11 (3.7)	43.2 (3.8)
Samastipur	3 (4.6)	59.5 (5.9)	3 (4.6)	59.5 (5.9)	2.3 (4)	58.5 (5.1)	2.31 (4)	58.5 (5.1)
Begusarai	1.8 (2.7)	34.9 (3.5)	1.8 (2.7)	34.9 (3.5)	2.8 (4.9)	58.9 (5.2)	2.81 (4.9)	58.94 (5.2)
Munger	0.8 (1.2)	13.3 (1.3)	0.8 (1.2)	13.3 (1.3)	0.8 (1.4)	16.7 (1.5)	0.8 (1.4)	16.7 (1.5)
Sheikhpura	0.2 (0.3)	4.4 (0.4)	0.2 (0.3)	4.4 (0.4)	0.3 (0.5)	6.7 (0.6)	0.3 (0.5)	6.7 (0.6)
Lakhisarai	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Jamui	0.4 (0.6)	7.5 (0.7)	0.4 (0.6)	7.5 (0.7)	0.6 (1)	12.4 (1.1)	0.61 (1.1)	12.4 (1.1)
Khagaria	1.3 (2)	21.4 (2.1)	1.3 (2)	21.4 (2.1)	1.2 (2.1)	29.6 (2.6)	1.2 (2.1)	29.6 (2.6)
Bhagalpur	1.7 (2.6)	29.2 (2.9)	1.7 (2.6)	29.2 (2.9)	1.7 (3)	36 (3.2)	1.7 (3)	36 (3.2)
Banka	0.8 (1.2)	12.4 (1.2)	0.8 (1.2)	12.4 (1.2)	0.8 (1.4)	17.4 (1.5)	0.8 (1.4)	17.4 (1.5)
Saharsa	1.8 (2.7)	31.5 (3.1)	1.8 (2.7)	31.5 (3.1)	1.3 (2.3)	28.7 (2.5)	1.3 (2.3)	28.7 (2.5)
Supaul	0.7 (1.1)	11.7 (1.2)	0.7 (1.1)	11.7 (1.2)	0.6 (1)	13 (1.1)	0.6 (1)	13 (1.1)
Madhepura	1.8 (2.7)	30.9 (3.1)	1.8 (2.7)	30.9 (3.1)	1.6 (2.8)	33.9 (3)	1.6 (2.8)	33.9 (3)
Purnea	2.1 (3.2)	35.2 (3.5)	2.1 (3.2)	35.2 (3.5)	1.1 (1.9)	20.9 (1.8)	1.11 (1.9)	20.9 (1.8)
Kishanganj	0.9 (1.4)	15.9 (1.6)	0.9 (1.4)	15.9 (1.6)	0.6 (1)	12.4 (1.1)	0.6 (1)	12.4 (1.1)
Araria	0.8 (1.2)	14.7 (1.5)	0.8 (1.2)	14.7 (1.5)	0.6 (1)	13.9 (1.2)	0.6 (1)	13.91 (1.2)
Katihar	3 (4.6)	5.1 (0.5)	3 (4.6)	5.1 (0.5)	1.8 (3.1)	1.8 (0.2)	1.8 (3.1)	1.8 (0.2)
<b>Bihar</b>	<b>65.7 (100)</b>	<b>1003.9 (100)</b>	<b>65.71 (100)</b>	<b>1003.9 (100)</b>	<b>57.6 (100)</b>	<b>1141.57 (100)</b>	<b>57.62 (100)</b>	<b>1138.05 (100)</b>

Note : Figure in parentheses denotes percentage

Source : Department of Agriculture, GOB

**Table A 3.8 : District-wise Area and Production of Important Fruits**

(Area in '000 hectare/Production in '000 tonnes)

Districts	Mango				Guava			
	2014-15		2015-16		2014-15		2015-16	
	Area	Production	Area	Production	Area	Production	Area	Production
Patna	4 (2.7)	32.5 (2.6)	4.04 (2.7)	38.5 (2.6)	1.1 (3.7)	9 (2.4)	1.1 (3.7)	9 (2.4)
Nalanda	2.9 (2)	20.5 (1.6)	2.91 (2)	30.5 (2.1)	1.5 (5.1)	146.2 (39.5)	1.5 (5.1)	146.2 (39.5)
Bhojpur	4.6 (3.1)	42.8 (3.4)	4.65 (3.1)	46.8 (3.2)	1.9 (6.5)	16.5 (4.5)	1.93 (6.6)	16.5 (4.5)
Buxar	3.4 (2.3)	32.5 (2.6)	3.41 (2.3)	34.5 (2.4)	1.6 (5.4)	12.5 (3.4)	1.6 (5.5)	12.5 (3.4)
Rohtas	5.7 (3.8)	52.8 (4.2)	5.7 (3.8)	58.8 (4)	3.3 (11.2)	27 (7.3)	3.3 (11.2)	27 (7.3)
Kaimur	3.4 (2.3)	30.3 (2.4)	3.41 (2.3)	34.3 (2.3)	1.4 (4.8)	10.6 (2.9)	1.4 (4.8)	10.6 (2.9)
Gaya	1.4 (0.9)	12.5 (1)	1.41 (0.9)	14.5 (1)	0.7 (2.4)	5.5 (1.5)	0.7 (2.4)	5.5 (1.5)
Jehanabad	0.4 (0.3)	3.2 (0.3)	0.41 (0.3)	4.2 (0.3)	0.3 (1)	2.1 (0.6)	0.3 (1)	2.1 (0.6)
Arwal	0.4 (0.3)	3 (0.2)	0.4 (0.3)	3.6 (0.2)	0.2 (0.7)	1.8 (0.5)	0.2 (0.7)	1.8 (0.5)
Nawada	1.2 (0.8)	10.2 (0.8)	1.2 (0.8)	12.2 (0.8)	0.5 (1.7)	3.9 (1.1)	0.5 (1.7)	3.9 (1.1)
Aurangabad	1.3 (0.9)	12.1 (1)	1.3 (0.9)	14.2 (1)	0.7 (2.4)	4.8 (1.3)	0.7 (2.4)	4.8 (1.3)
Saran	5.1 (3.4)	50 (3.9)	5.18 (3.5)	50 (3.4)	0	0	0	0
Siwan	2.5 (1.7)	20.1 (1.6)	2.51 (1.7)	25.1 (1.7)	0.7 (2.4)	5.5 (1.5)	0.7 (2.4)	5.5 (1.5)
Gopalganj	3.1 (2.1)	27.2 (2.1)	3.12 (2.1)	30.2 (2.1)	0.6 (2)	5 (1.4)	0.6 (2)	5 (1.4)
W. Champaran	7.3 (4.9)	72.5 (5.7)	7.32 (4.9)	72.5 (4.9)	1.6 (5.4)	13.8 (3.7)	1.6 (5.5)	13.8 (3.7)
E. Champaran	9.3 (6.3)	82.3 (6.5)	9.33 (6.3)	92.3 (6.3)	1.7 (5.8)	14 (3.8)	1.7 (5.8)	14 (3.8)
Muzaffarpur	9.8 (6.6)	82.5 (6.5)	9.84 (6.6)	96.5 (6.6)	1.5 (5.1)	11.8 (3.2)	1.5 (5.1)	11.8 (3.2)
Sitamarhi	5.3 (3.6)	49.5 (3.9)	5.4 (3.6)	52.5 (3.6)	0.7 (2.4)	6.2 (1.7)	0.7 (2.4)	6.2 (1.7)
Sheohar	2.7 (1.8)	2.1 (0.2)	2.7 (1.8)	27 (1.8)	0.3 (1)	2.6 (0.7)	0.3 (1)	2.6 (0.7)
Vaishali	8.47 (5.7)	75.82 (6)	8.47 (5.7)	86 (5.9)	1.6 (5.4)	11.2 (3)	1.5 (5.1)	11.2 (3)
Darbhanga	13.5 (9.1)	120.5 (9.5)	13.55 (9.1)	140.5 (9.6)	0.6 (2)	4.9 (1.3)	0.6 (2)	4.9 (1.3)
Madhubani	6.1 (4.1)	51 (4)	6.1 (4.1)	61 (4.2)	0.5 (1.7)	4.1 (1.1)	0.5 (1.7)	4.1 (1.1)
Samastipur	10.6 (7.1)	89.3 (7)	10.64 (7.1)	99.3 (6.8)	0.7 (2.4)	5.3 (1.4)	0.7 (2.4)	5.3 (1.4)
Begusarai	4.1 (2.8)	36.5 (2.9)	4.1 (2.7)	40.5 (2.8)	0.5 (1.7)	4.6 (1.2)	0.5 (1.7)	4.6 (1.2)
Munger	1.3 (0.9)	10.7 (0.8)	1.3 (0.9)	13.7 (0.9)	0.3 (1)	2.3 (0.6)	0.3 (1)	2.3 (0.6)
Sheikhpura	0.9 (0.6)	8.5 (0.7)	0.9 (0.6)	9.6 (0.7)	0.1 (0.3)	1.1 (0.3)	0.1 (0.3)	1.1 (0.3)
Lakhisarai	0.6 (0.4)	4.8 (0.4)	0.61 (0.4)	6 (0.4)	0.1 (0.3)	1.1 (0.3)	0.1 (0.3)	1.1 (0.3)
Jamui	1.1 (0.7)	9.3 (0.7)	1.15 (0.8)	11 (0.8)	0.2 (0.7)	1.7 (0.5)	0.2 (0.7)	1.7 (0.5)
Khagaria	1.7 (1.1)	14.5 (1.1)	1.7 (1.1)	16.5 (1.1)	0.4 (1.4)	3 (0.8)	0.4 (1.4)	3 (0.8)
Bhagalpur	7.5 (5.1)	60.5 (4.8)	7.6 (5.1)	70.51 (4.8)	0.7 (2.4)	5.8 (1.6)	0.71 (2.4)	5.8 (1.6)
Banka	6.3 (4.2)	48.5 (3.8)	6.3 (4.2)	50.5 (3.4)	0.3 (1)	2.5 (0.7)	0.3 (1)	2.5 (0.7)
Saharsa	2.2 (1.5)	23.2 (1.8)	2.21 (1.5)	23.2 (1.6)	0.7 (2.4)	5.3 (1.4)	0.7 (2.4)	5.3 (1.4)
Supaul	1.3 (0.9)	10.1 (0.8)	1.3 (0.9)	13.1 (0.9)	0.4 (1.4)	3.3 (0.9)	0.4 (1.4)	3.3 (0.9)
Madhepura	2 (1.3)	14.3 (1.1)	2.01 (1.3)	18.3 (1.2)	0.7 (2.4)	5 (1.4)	0.7 (2.4)	5 (1.4)
Purnea	2.5 (1.7)	22.5 (1.8)	2.58 (1.7)	25.5 (1.7)	0.4 (1.4)	3.2 (0.9)	0.4 (1.4)	3.2 (0.9)
Kishanganj	0.8 (0.5)	7.5 (0.6)	0.8 (0.5)	7.5 (0.5)	0.2 (0.7)	1.9 (0.5)	0.2 (0.7)	1.9 (0.5)
Araria	0.7 (0.5)	5.2 (0.4)	0.71 (0.5)	5.72 (0.4)	0.2 (0.7)	1.2 (0.3)	0.2 (0.7)	1.2 (0.3)
Katihar	2.9 (2)	20.3 (1.6)	2.9 (1.9)	28.3 (1.9)	0.5 (1.7)	3.7 (1)	0.5 (1.7)	3.7 (1)
<b>Bihar</b>	148.37 (100)	1271.62 (100)	149.14 (100)	1464.93 (100)	29.4 (100)	370 (100)	29.34 (100)	370 (100)

Note : Figure in parentheses denotes percentage

Source : Department of Agriculture, GOB

(Contd.)

**Table A 3.8 : District-wise Area and Production of Important Fruits (Contd.)**

(Area in '000 hectare/Production in '000 tonnes)

Districts	Litchi				Banana			
	2014-15		2015-16		2014-15		2015-16	
	Area	Production	Area	Production	Area	Production	Area	Production
Patna					0.7 (2)	30.3 (2)	0.7 (2)	30.3 (2)
Nalanda					0.5 (1.4)	24.4 (1.6)	0.5 (1.4)	24.4 (1.6)
Bhojpur					0.4 (1.2)	15.2 (1)	0.4 (1.1)	15.2 (1)
Buxar					0.2 (0.6)	10.5 (0.7)	0.2 (0.6)	10.5 (0.7)
Rohtas					0.3 (0.9)	14.2 (0.9)	0.3 (0.9)	14.2 (0.9)
Kaimur					0.2 (0.6)	11.1 (0.7)	0.2 (0.6)	11.1 (0.7)
Gaya					0.3 (0.9)	12.9 (0.8)	0.3 (0.9)	12.9 (0.8)
Jehanabad					0.2 (0.6)	8.1 (0.5)	0.2 (0.6)	8.1 (0.5)
Arwal					0.1 (0.3)	6.1 (0.4)	0.1 (0.3)	6.1 (0.4)
Nawada					0.4 (1.2)	12 (0.8)	0.4 (1.1)	12 (0.8)
Aurangabad					0.4 (1.2)	16.2 (1.1)	0.4 (1.1)	16.2 (1.1)
Saran	1.1 (3.4)	9.3 (4.7)	1.1 (3.4)	9.3 (4.7)	0.9 (2.6)	38.4 (2.5)	0.9 (2.6)	38.4 (2.5)
Siwan	1.2 (3.7)	7.6 (3.8)	1.2 (3.7)	7.6 (3.8)	0.8 (2.3)	35.1 (2.3)	0.8 (2.3)	35.1 (2.3)
Gopalganj	1.2 (3.7)	8 (4)	1.2 (3.7)	8 (4)	0.8 (2.3)	32 (2.1)	0.8 (2.3)	32 (2.1)
W. Champaran	2.1 (6.5)	11.5 (5.8)	2.1 (6.5)	11.5 (5.8)	1.1 (3.2)	51 (3.3)	1.1 (3.2)	51 (3.3)
E. Champaran	2 (6.2)	12.3 (6.2)	2 (6.2)	12.3 (6.2)	1.1 (3.2)	48.1 (3.2)	1.1 (3.2)	48.1 (3.1)
Muzaffarpur	7.9 (24.5)	40.5 (20.5)	7.9 (24.6)	40.5 (20.5)	5.3 (15.3)	272.5 (17.9)	5.3 (15.2)	272.5 (17.7)
Sitamarhi	2.3 (7.1)	17.4 (8.8)	2.3 (7.2)	17.4 (8.8)	0.7 (2)	30.4 (2)	0.7 (2)	30.4 (2)
Sheohar	1 (3.1)	6.8 (3.4)	1 (3.1)	6.8 (3.4)	0.3 (0.9)	12 (0.8)	0.3 (0.9)	12 (0.8)
Vaishali	3.8 (11.8)	21.4 (10.8)	3.7 (11.5)	21.7 (11)	3.24 (9.4)	133.2 (8.7)	3.4 (9.8)	142 (9.2)
Darbhanga	0.8 (2.5)	4.1 (2.1)	0.8 (2.5)	4.1 (2.1)	1.3 (3.8)	70.9 (4.6)	1.3 (3.7)	70.9 (4.6)
Madhubani	0.8 (2.5)	5.5 (2.8)	0.8 (2.5)	5.5 (2.8)	1.1 (3.2)	54.2 (3.6)	1.1 (3.2)	54.2 (3.5)
Samastipur	1.5 (4.7)	10.3 (5.2)	1.5 (4.7)	10.3 (5.2)	2.3 (6.6)	102.5 (6.7)	2.3 (6.6)	102.5 (6.7)
Begusarai	0.6 (1.9)	3.3 (1.7)	0.6 (1.9)	3.3 (1.7)	1 (2.9)	45.4 (3)	1 (2.9)	45.4 (3)
Munger	0.3 (0.9)	2.2 (1.1)	0.3 (0.9)	2.2 (1.1)	0.4 (1.2)	21.2 (1.4)	0.4 (1.1)	21.2 (1.4)
Sheikhpura	(0)	0.3 (0.2)	(0)	0.3 (0.2)	0.1 (0.3)	6.2 (0.4)	0.1 (0.3)	6.2 (0.4)
Lakhisarai	(0)	0.3 (0.2)	(0)	0.3 (0.2)	0.2 (0.6)	6.5 (0.4)	0.2 (0.6)	6.5 (0.4)
Jamui	0.1 (0.3)	1.2 (0.6)	0.1 (0.3)	1.2 (0.6)	0.2 (0.6)	9.6 (0.6)	0.2 (0.6)	9.6 (0.6)
Khagaria	0.3 (0.9)	2.1 (1.1)	0.3 (0.9)	2.1 (1.1)	1.1 (3.2)	45.7 (3)	1.1 (3.2)	45.7 (3)
Bhagalpur	0.6 (1.9)	4.3 (2.2)	0.6 (1.9)	4.3 (2.2)	1.3 (3.8)	52.6 (3.4)	1.3 (3.7)	52.6 (3.4)
Banka	0.1 (0.3)	0.3 (0.2)	0.1 (0.3)	0.3 (0.2)	0.4 (1.2)	14.7 (1)	0.4 (1.1)	14.7 (1)
Saharsa	0.6 (1.9)	4.7 (2.4)	0.6 (1.9)	4.7 (2.4)	1.2 (3.5)	51.5 (3.4)	1.2 (3.4)	51.5 (3.4)
Supaul	0.1 (0.3)	0.7 (0.4)	0.1 (0.3)	0.7 (0.4)	0.7 (2)	24 (1.6)	0.7 (2)	24 (1.6)
Madhepura	0.2 (0.6)	1.4 (0.7)	0.2 (0.6)	1.4 (0.7)	1.4 (4)	68.4 (4.5)	1.4 (4)	68.4 (4.5)
Purnea	1.3 (4)	8.5 (4.3)	1.3 (4)	8.5 (4.3)	1.3 (3.8)	48.5 (3.2)	1.3 (3.7)	48.5 (3.2)
Kishanganj	0.4 (1.2)	2.1 (1.1)	0.4 (1.2)	2.1 (1.1)	0.7 (2)	31.5 (2.1)	0.7 (2)	31.5 (2.1)
Araria	0.4 (1.2)	1.4 (0.7)	0.4 (1.2)	1.4 (0.7)	0.5 (1.4)	18.7 (1.2)	0.5 (1.4)	18.7 (1.2)
Katihar	1.5 (4.7)	10.2 (5.2)	1.5 (4.7)	10.2 (5.2)	1.5 (4.3)	40.7 (2.7)	1.5 (4.3)	40.7 (2.7)
<b>Bihar</b>	<b>32.2 (100)</b>	<b>197.7 (100)</b>	<b>32.1 (100)</b>	<b>198 (100)</b>	<b>34.64 (100)</b>	<b>1526.5 (100)</b>	<b>34.8 (100)</b>	<b>1535.3 (100)</b>

Note : Figure in parentheses denotes percentage.

Source : Department of Agriculture, GOB

**Table A 3.9 : District-wise Area, Production and Productivity of Sugarcane**

(Area in '000 ha. / Production in '000 Ton/ Yield in Ton/ha)

Districts	2014-15			2015-16		
	Area	Prod.	Yield	Area	Prod.	Yield
Patna	0.47 (0.2)	34.03 (0.2)	71.97 (7)	0.49 (0.2)	44.31 (0.2)	90.11 (2)
Nalanda	0.2 (0.1)	20.83 (0.1)	102.5 (2)	0.19 (0.1)	19.01 (0.1)	98.23 (1)
Bhojpur	0.48 (0.2)	26.88 (0.1)	56.54 (24)	0.42 (0.2)	34.55 (0.2)	81.32 (4)
Buxar	0.37 (0.1)	19.26 (0.1)	51.5 (30)	0.34 (0.1)	26.22 (0.1)	78.04 (6)
Rohtash	0.29 (0.1)	15.3 (0.1)	52.19 (29)	0.28 (0.1)	16.05 (0.1)	57.31 (29)
Kaimur	0.15 (0)	4.65 (0)	30.38 (37)	0.15 (0.1)	5.77 (0)	39.31 (36)
Gaya	0.38 (0.1)	27.68 (0.1)	72.44 (6)	0.36 (0.1)	24.32 (0.1)	67.99 (12)
Jahanabad	0.08 (0)	7.96 (0)	97.1 (3)	0.09 (0)	7.39 (0)	84.3 (3)
Arwal	0.04 (0)	2.94 (0)	65.87 (14)	0.04 (0)	2.67 (0)	66.46 (15)
Nawada	0.4 (0.1)	21.73 (0.1)	54.18 (25)	0.38 (0.1)	20.15 (0.1)	52.86 (35)
Aurangabad	0.09 (0)	6.83 (0)	73.65 (5)	0.09 (0)	6.86 (0)	73.35 (8)
Saran	1.83 (0.6)	121.45 (0.6)	66.29 (12)	1.03 (0.4)	56.27 (0.3)	54.38 (31)
Siwan	6.39 (2)	432.85 (2)	67.76 (10)	2.87 (1.1)	156.27 (0.9)	54.36 (32)
Gopalganj	33.32 (10.6)	1455.35 (6.9)	43.67 (31)	25.98 (9.9)	1791.13 (9.9)	68.95 (11)
W. Champaran	148.5 (47.1)	9698.43 (45.9)	65.31 (15)	122.73 (46.6)	8529.69 (46.9)	69.5 (10)
E. Champaran	52.69 (16.7)	5575.68 (26.4)	105.83 (1)	43.3 (16.4)	3431.91 (18.9)	79.26 (5)
Muzaffarpur	9.24 (2.9)	637.54 (3)	69.01 (8)	8.11 (3.1)	597.28 (3.3)	73.64 (7)
Sitamarhi	17.37 (5.5)	755.33 (3.6)	43.48 (32)	14.64 (5.6)	904.49 (5)	61.79 (21)
Sheohar	3.94 (1.3)	170.02 (0.8)	43.18 (33)	3.65 (1.4)	137.97 (0.8)	37.78 (37)
Vaishali	0.86 (0.3)	55.21 (0.3)	63.84 (16)	1.83 (0.7)	118.65 (0.7)	64.98 (19)
Darbhanga	2.49 (0.8)	155.89 (0.7)	62.68 (17)	2.49 (0.9)	167.2 (0.9)	67.13 (13)
Madhubani	5.24 (1.7)	327.03 (1.5)	62.4 (18)	5.58 (2.1)	373.89 (2.1)	67.02 (14)
Samastipur	6.77 (2.2)	257.64 (1.2)	38.03 (35)	5.95 (2.3)	375.28 (2.1)	63.05 (20)
Begusarai	6.84 (2.2)	269.58 (1.3)	39.42 (34)	6.61 (2.5)	399.23 (2.2)	60.36 (23)
Munger	0.16 (0.1)	9.65 (0)	60 (20)	0.18 (0.1)	10.86 (0.1)	60 (25)
Sheikhpura	0.35 (0.1)	21.12 (0.1)	59.95 (21)	0.36 (0.1)	23.4 (0.1)	65 (17)
Lakhisarai	0.02 (0)	1.42 (0)	57.56 (23)	0.03 (0)	2.02 (0)	65 (17)
Jamui	0.81 (0.3)	49.19 (0.2)	60.44 (19)	0.82 (0.3)	49.38 (0.3)	60 (25)
Khagaria	0.32 (0.1)	11.96 (0.1)	37.07 (36)	0.36 (0.1)	20.14 (0.1)	56.72 (30)
Bhagalpur	5.56 (1.8)	377.76 (1.8)	67.98 (9)	4.52 (1.7)	272.34 (1.5)	60.24 (24)
Banka	2.9 (0.9)	194.89 (0.9)	67.15 (11)	2.59 (1)	154.71 (0.9)	59.8 (27)
Saharsa	0.8 (0.3)	42.22 (0.2)	52.67 (27)	0.84 (0.3)	44.62 (0.2)	53.44 (34)
Supaul	0 (0)	0 (0)	0 (38)	0 (0)	0 (0)	0 (38)
Madhepura	4.02 (1.3)	211.59 (1)	52.67 (27)	4.25 (1.6)	229.33 (1.3)	54 (33)
Purnia	0.97 (0.3)	56.82 (0.3)	58.78 (22)	1.07 (0.4)	64.71 (0.4)	60.54 (22)
Kishanganj	0.18 (0.1)	16 (0.1)	91.24 (4)	0.33 (0.1)	21.5 (0.1)	65.02 (16)
Araria	0.32 (0.1)	17.45 (0.1)	53.76 (26)	0.43 (0.2)	24.87 (0.1)	58.25 (28)
Katihar	0.11 (0)	7.28 (0)	66.22 (13)	0.16 (0.1)	11.15 (0.1)	70.59 (9)
<b>Bihar</b>	<b>314.99 (100)</b>	<b>21117.43 (100)</b>	<b>67.04</b>	<b>263.53 (100)</b>	<b>18175.59 (100)</b>	<b>68.97</b>

Note : Figure in parentheses denotes percentage and ranking for productivity

Source : Department of Sugarcane, GOB



**Table A 3.10 : District-wise Utilisation of Bio-fertilizers in Bihar**

(Physical in hectare and Financial in Rs. lakh)

Districts	Target		Achievement	
	Physical	Financial	Physical	Financial
Patna	699	3.49	360 (51.5)	1.8 (51.6)
Nalanda	524	2.62	346 (66)	1.43 (54.6)
Bhojpur	480	2.4	423 (88.1)	2.11 (87.9)
Buxar	300	1.5	0 (0)	0 (0)
Rohtas	531	2.65	133 (25)	0.67 (25.3)
Kaimur	365	1.82	0 (0)	0 (0)
Gaya	792	3.96	599 (75.6)	3 (75.8)
Jehanabad	197	0.98	0 (0)	0 (0)
Arwal	138	0.69	138 (100)	0.69 (100)
Nawada	405	2.03	284 (70.1)	1.42 (70)
Aurangabad	438	2.19	330 (75.3)	1.64 (74.9)
Saran	696	3.48	504 (72.4)	3.46 (99.4)
Siwan	617	3.08	578 (93.7)	2.87 (93.2)
Gopalganj	504	2.52	504 (100)	2.52 (100)
W. Champaran	745	3.72	270 (36.2)	1.35 (36.3)
E. Champaran	863	4.32	189 (21.9)	0.95 (22)
Muzaffarpur	816	4.08	363 (44.5)	1.82 (44.6)
Sitamarhi	575	2.87	566 (98.4)	2.83 (98.6)
Sheohar	110	0.55	0 (0)	0 (0)
Vaishali	611	3.06	395 (64.6)	1.79 (58.5)
Darbhanga	695	3.48	483 (69.5)	2.41 (69.3)
Madhubani	841	4.21	133 (15.8)	0.67 (15.9)
Samastipur	801	4.01	650 (81.1)	3.25 (81)
Begusarai	541	2.71	0 (0)	0 (0)
Munger	223	1.11	166 (74.4)	0.83 (74.8)
Sheikhpura	126	0.63	0 (0)	0 (0)
Lakhisarai	174	0.87	0 (0)	0 (0)
Jamui	346	1.73	207 (59.8)	1.04 (60.1)
Khagaria	272	1.36	352 (129.4)	1.06 (77.9)
Bhagalpur	534	2.67	296 (55.4)	1.48 (55.4)
Banka	436	2.18	0 (0)	0 (0)
Saharsa	325	1.63	341 (104.9)	1.57 (96.3)
Supaul	381	1.91	205 (53.8)	1.02 (53.4)
Madhepura	368	1.84	0 (0)	0 (0)
Purnea	542	2.71	59 (10.9)	0.3 (11.1)
Kishanganj	277	1.39	0 (0)	0 (0)
Araria	465	2.33	0 (0)	0 (0)
Katihar	513	2.56	486 (94.7)	2.43 (94.9)
<b>Bihar</b>	<b>18266</b>	<b>91.33</b>	<b>9360 (51.2)</b>	<b>46.41 (50.8)</b>

Note : Figure in parentheses denotes percentage.

Source : Department of Agriculture, GOB

**Table A 3.11 : District-wise Cooperative Credit Distribution**

District	Target (Rs. Lakh)			Achievement (Rs. lakh)		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Patna	7686	11433	11433	1564.32 (5.1)	3013.20 (7.9)	3072.40 (6.7)
Nalanda	4044	4303	4303	429.21 (1.4)	434.99 (1.1)	770.75 (1.7)
Bhojpur	4814	5391	5391	466.10 (1.5)	520.91 (1.4)	592.86 (1.3)
Buxar	3507	3926	3926	345.25 (1.1)	402.38 (1.1)	351.83 (0.8)
Rohtas	2188	2351	2351	1223.76 (4.0)	1743.26 (4.6)	910.00 (2.0)
Kaimur	1258	1647	1647	524.5 (1.7)	583.38 (1.5)	1016.97 (2.2)
Gaya	2741	3047	3047	248.49 (0.8)	268.38 (0.7)	374.15 (0.8)
Jehanabad	828	1018	1018	11.43 (0.0)	6.55 (0.0)	38.89 (0.1)
Arwal	347	383	383	1.73 (0.0)	1.00 (0.0)	18.40 (0.04)
Nawada	2581	2865	2865	802.03 (2.6)	2729.81 (7.2)	2078.00 (4.6)
Aurangabad	2880	3208	3208	1346.70 (4.4)	1534.52 (4.0)	1434.97 (3.2)
Saran	—	—	—	—	—	—
Siwan	2931	3393	3393	695.65 (2.3)	789.90 (2.1)	2296.54 (5.0)
Gopalganj	904	1092	1092	1415.25 (4.6)	1935.46 (5.1)	1773.31 (3.9)
W. Champaran	3028	3583	3583	259.05 (0.8)	488.72 (1.3)	567.91 (1.2)
E. Champaran	1571	2199	2199	1041.41 (3.4)	2318.87 (6.1)	3046.64 (6.7)
Muzaffarpur	1861	2997	2997	161.14 (0.5)	205.53 (0.5)	575.96 (1.3)
Sitamarhi	1501	1601	1601	227.09 (0.7)	121.19 (0.3)	224.72 (0.5)
Sheohar	202	286	286	74.34 (0.2)	45.82 (0.1)	55.46 (0.1)
Vaishali	829	964	964	185.78 (0.6)	156.36 (0.4)	64.53 (0.1)
Darbhanga	—	—	—	—	—	—
Madhubani	5630	7907	7907	4198.75 (13.6)	3951.74 (10.4)	6660.84 (14.6)
Samastipur	3273	3398	3398	3732.24 (12.1)	2951.83 (7.7)	3088.95 (6.8)
Begusarai	6762	11727	11727	7494.06 (24.4)	8326.25 (21.9)	10047.52 (22.1)
Munger	408	563	563	21.69 (0.1)	11.09 (0.0)	17.11 (0.04)
Sheikhpura	684	814	814	3.3 (0.0)	—	—
Lakhisarai	1492	1532	1532	17.85 (0.1)	—	—
Jamui	691	977	977	107.7 (0.4)	—	—
Khagaria	3388	3388	3388	3143.33 (10.2)	4326.32 (11.4)	3791.35 (8.3)
Bhagalpur	1182	1265	1265	186.89 (0.6)	233.39 (0.6)	289.47 (0.6)
Banka	1331	1557	1557	17.88 (0.1)	26.23 (0.1)	33.69 (0.1)
Saharsa	—	—	—	—	—	1118.29 (2.5)
Supaul	—	—	—	—	—	—
Madhepura	—	—	—	—	—	—
Purnea	2873	3464	3464	254.93 (0.8)	295.37 (0.8)	327.56 (0.7)
Kishanganj	3067	3540	3540	89.60 (0.3)	390.67 (1.0)	209.11 (0.5)
Araria	1744	2180	2180	85.96 (0.3)	120.01 (0.3)	584.01 (1.3)
Katihar	1774	2001	2001	384.29 (1.2)	155.58 (0.4)	87.5 (0.2)
Bihar	80000	100000	100000	30761.67 (100.0)	38088.71 (100.0)	45519.69 (100.0)

Note : Figures in the parentheses denote percentage

Source : Department of Cooperative, GOB

**Table A 3.12 : District-wise Livestock Wealth (2012)**

(Figures in '000)

District	Cow	Buffalo	Pig	Sheep	Goat	Poultry
Patna	306 (2.5)	293 (3.9)	39 (5.9)	13 (5.7)	179 (1.5)	401 (3.1)
Nalanda	176 (1.4)	317 (4.2)	23 (3.5)	8 (3.5)	157 (1.3)	520 (4.1)
Bhojpur	204 (1.7)	202 (2.7)	131 (20.2)	19 (8.1)	115 (0.9)	161 (1.3)
Buxar	162 (1.3)	183 (2.4)	8 (1.3)	16 (6.7)	81 (0.7)	80 (0.6)
Rohtas	396 (3.2)	299 (3.9)	11 (1.7)	14 (6.0)	369 (3.0)	187 (1.5)
Kaimur	204 (1.7)	222 (2.9)	8 (1.3)	43 (18.5)	111 (0.9)	131 (1.0)
Gaya	654 (5.3)	314 (4.2)	83 (12.8)	10 (4.2)	428 (3.5)	496 (3.9)
Jehanabad	80 (0.7)	132 (1.7)	16 (2.5)	2 (0.9)	73 (0.6)	95 (0.7)
Arwal	53 (0.4)	73 (1.0)	4 (0.6)	2 (1.0)	50 (0.4)	134 (1.0)
Nawada	307 (2.5)	130 (1.7)	28 (4.3)	3 (1.1)	224 (1.8)	274 (2.1)
Aurangabad	364 (3.0)	200 (2.6)	11 (1.7)	25 (10.9)	209 (1.7)	377 (3.0)
Saran	321 (2.6)	187 (2.5)	8 (1.3)	5 (2.2)	188 (1.5)	325 (2.5)
Siwan	295 (2.4)	149 (2.0)	10 (1.6)	2 (0.9)	235 (1.9)	232 (1.8)
Gopalganj	188 (1.5)	115 (1.5)	6 (1.0)	0 (0.2)	211 (1.7)	146 (1.1)
W. Champaran	367 (3.0)	260 (3.4)	17 (2.7)	2 (1.0)	593 (4.9)	466 (3.7)
E. Champaran	360 (2.9)	340 (4.5)	16 (2.5)	2 (0.7)	725 (6.0)	684 (5.4)
Muzaffarpur	344 (2.8)	278 (3.7)	5 (0.8)	2 (0.8)	564 (4.6)	853 (6.7)
Sitamarhi	151 (1.2)	186 (2.5)	6 (1.0)	0 (0.1)	366 (3.0)	281 (2.2)
Sheohar	40 (0.3)	47 (0.6)	1 (0.2)	0 (0.0)	96 (0.8)	48 (0.4)
Vaishali	213 (1.7)	169 (2.2)	2 (0.3)	2 (0.7)	299 (2.5)	756 (5.9)
Darbhanga	260 (2.1)	222 (2.9)	9 (1.3)	1 (0.2)	302 (2.5)	480 (3.8)
Madhubani	526 (4.3)	380 (5.0)	16 (2.4)	1 (0.5)	400 (3.3)	259 (2.0)
Samastipur	467 (3.8)	241 (3.2)	3 (0.5)	3 (1.1)	387 (3.2)	551 (4.3)
Begusarai	363 (3.0)	99 (1.3)	4 (0.6)	0 (0.0)	231 (1.9)	256 (2.0)
Munger	167 (1.4)	52 (0.7)	8 (1.2)	0 (0.1)	169 (1.4)	141 (1.1)
Sheikhpura	67 (0.5)	46 (0.6)	5 (0.8)	1 (0.5)	64 (0.5)	60 (0.5)
Lakhisarai	126 (1.0)	58 (0.8)	4 (0.6)	1 (0.6)	107 (0.9)	45 (0.4)
Jamui	459 (3.8)	78 (1.0)	33 (5.0)	11 (4.6)	351 (2.9)	189 (1.5)
Khagaria	239 (2.0)	88 (1.2)	4 (0.7)	0 (0.0)	228 (1.9)	148 (1.2)
Bhagalpur	509 (4.2)	191 (2.5)	9 (1.4)	1 (0.2)	582 (4.8)	358 (2.8)
Banka	552 (4.5)	142 (1.9)	21 (3.3)	16 (6.9)	377 (3.1)	212 (1.7)
Saharsa	298 (2.4)	163 (2.1)	11 (1.7)	0 (0.0)	347 (2.9)	138 (1.1)
Supaul	475 (3.9)	313 (4.1)	11 (1.7)	16 (7.1)	448 (3.7)	176 (1.4)
Madhepura	346 (2.8)	820 (10.8)	7 (1.1)	1 (0.3)	403 (3.3)	198 (1.6)
Purnea	499 (4.1)	133 (1.8)	19 (2.9)	0 (0.0)	516 (4.2)	559 (4.4)
Kishanganj	411 (3.4)	45 (0.6)	12 (1.8)	1 (0.6)	407 (3.4)	736 (5.8)
Araria	678 (5.5)	300 (4.0)	16 (2.4)	3 (1.4)	980 (8.1)	722 (5.7)
Katihar	605 (4.9)	101 (1.3)	23 (3.5)	6 (2.7)	580 (4.8)	876 (6.9)
<b>Bihar</b>	<b>12232 (100.0)</b>	<b>7567 (100.0)</b>	<b>650 (100.0)</b>	<b>232 (100.0)</b>	<b>12154 (100.0)</b>	<b>12748 (100.0)</b>

Note : Figure in parentheses denotes percentage  
Source : Directorate of Animal Husbandry, GOB

**Table A 3.13 : District-wise Production of Fish and Fish Seeds**

Districts	Fish Production (000 tonnes)	Fish Seeds (Lakh)	Fish Production (000 tonnes)	Fish Seeds (Lakh)	Fish Production (000 tonnes)	Fish Seeds (Lakh)
	2013-14		2014-15		2015-16	
Patna	12.09	35	14.01	21	15.5	154
Nalanda	21.12	293	16.59	290	17.6	288
Bhojpur	12.60	0	9.32	5	10.1	45
Buxar	8.80	0	6.42	3	6.9	61
Rohtas	6.85	0	6.30	81	6.8	60
Kaimur	4.85	0	7.00	135	10.0	103
Gaya	5.27	68	2.54	6	6.5	0
Jehanabad	4.08	7	3.15	8	1.3	9
Arwal	2.20	0	1.76	3	1.4	8
Nawada	5.93	0	5.20	70	5.4	12
Aurangabad	3.29	2	5.03	0	7.0	42
Saran	22.91	80	9.49	75	9.7	29
Siwan	17.95	750	16.96	51	6.2	14
Gopalganj	16.47	500	8.50	0	9.3	19
W. Champaran	17.09	396	22.17	82	23.1	390
E. Champaran	23.00	579	36.88	25	50.4	48
Muzaffarpur	19.98	95	20.15	530	21.8	220
Sitamarhi	16.80	175	11.15	56	12.2	596
Sheohar	2.68	3	1.85	6	2.1	6
Vaishali	6.28	40	13.40	30	15.1	64
Darbhanga	26.35	650	38.67	6543	44.0	499
Madhubani	23.60	27	42.30	118	51.5	120
Samastipur	11.40	119	12.02	110	13.1	158
Begusarai	7.22	0	23.24	0	21.8	1
Munger	4.83	0	6.20	7	9.4	10
Sheikhpura	0.05	6	3.01	0	2.9	10
Lakhisarai	4.43	0	7.31	0	7.9	13
Jamui	6.34	5	2.10	0	2.4	8
Khagaria	18.38	0	18.75	0	18.9	110
Bhagalpur	10.90	70	13.58	208	13.6	182
Banka	8.04	0	8.26	43	9.9	17
Saharsa	17.16	47	8.18	12	6.7	39
Supaul	6.85	157	8.78	78	10.5	100
Madhepura	12.75	0	2.90	0	3.7	49
Purnea	15.00	36	13.65	36	12.1	154
Kishanganj	7.10	190	6.03	0	6.2	98
Araria	6.86	158	9.99	201	10.9	86
Katihar	14.80	325	36.96	0	23.5	72
<b>Bihar</b>	<b>432.30</b>	<b>4813</b>	<b>479.80</b>	<b>8832</b>	<b>507.4</b>	<b>3893</b>

Source : Department of Animal Husbandry, GOB

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## CHAPTER IV

### ENTERPRISES SECTOR

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The growth of an economy is largely dependent on the growth of its enterprises sector which includes both secondary (industrial) and tertiary (services) activities. This is because, with increase in income, the demand for non-agricultural goods and services keeps on growing, resulting in higher growth of the enterprises sector. This expected pattern is also visible in Bihar. As was discussed in Chapter I, during the last 5 years, while the overall Bihar economy has grown at 7.6 percent, the secondary sector has grown at 8.4 percent and the tertiary sector has recorded an even higher growth rate of 10.4 percent. Although the pace is rather slow, this implies a structural change of the Bihar's economy. From Table 4.1, presenting the yearly growth rate of the secondary sector in the recent years, one observes that it has varied considerably — from (-) 13.1 percent in 2012-13 to 30.6 percent in 2013-14. This variation is also observed for all the four sub-sectors — mining/quarrying, manufacturing, construction, and electricity/water supply/gas.

**Table 4.1 : Annual Growth Rate of Secondary Sector in Bihar at 2011-12 prices**

Sector	Annual Growth Rate			
	2012-13	2013-14	2014-15	2015-16
1. Mining & Quarrying	8.94	540.62	-54.64	9.38
2. Manufacturing	-33.76	94.49	0.62	24.41
3. Construction	-5.22	6.46	0.82	5.49
4. Electricity/Water Supply / Gas	9.80	2.76	33.42	15.13
Total Secondary Sector	-13.14	30.62	1.86	13.38
Total GSDP	3.93	4.98	13.02	7.14

Source : Directorate of Economics and Statistics, GOB

The level of industrialisation in Bihar is still very low and the contribution of this sector to the state's GSDP stands at below 20 percent, compared to the national average of above 30 percent (Table 4.2). Indeed, this ratio is the lowest in Bihar; for Chhattisgarh, Gujarat, Jharkhand and Odisha, the ratios are all above 40 percent. Since the contribution of the industrial sector to GSDP in Bihar stands nearly unaltered at 19 percent, it is obvious that whatever modest structural change that Bihar's economy has shown in recent years is due to the higher growth rate of its tertiary sector.

**Table 4.2 : Contribution of Industrial Sector in GSDP at 2011-12 prices**

States	2013-14	2014-15	2015-16	States	2013-14	2014-15	2015-16
Andhra Pradesh	26.3	26.5	26.6	Maharashtra	34.2	34.6	-
<b>Bihar</b>	<b>19.8</b>	<b>17.9</b>	<b>19.0</b>	Odisha	41.7	39.6	41.4
Chhattisgarh	49.2	49.1	-	Punjab	24.5	24.4	-
Gujarat	45.0	45.0	-	Rajasthan	30.5	30.5	-
Haryana	30.8	30.5	-	Tamil Nadu	36.3	34.9	34.7
Jharkhand	45.2	44.6	43.7	Uttar Pradesh	28.0	28.1	27.7
Karnataka	28.3	28.1	28.0	West Bengal	19.1	18.7	-
Kerala	27.2	27.0	-				
Madhya Pradesh	27.7	27.0	26.9	<b>India</b>	<b>31.6</b>	<b>31.2</b>	<b>31.3</b>

Source : Central Statistical Organisation (CSO)

**4.1 Annual Survey of Industries**

The Annual Survey of Industries (ASI) is one of the principal sources of industrial statistics in India, although it covers only the large industrial units. This survey relates to manufacturing units employing at least 10 workers (with power) or 20 workers (without power).

**Table 4.3 : Number of Factories and Factories in Operation**

Categories	2011-12		2012-13		2013-14	
	India	Bihar	India	Bihar	India	Bihar
<b>No. of Factories</b>						
Agro-based	93251 (42.9)	1126 (34.8)	87803 (39.5)	1141 (34.1)	87775 (39.1)	1148 (33.6)
Non-Agro Based	124303 (57.1)	2106 (65.2)	134317 (60.5)	2206 (65.9)	136803 (60.9)	2272 (66.4)
All	217554 (100.0)	3232 (100.0)	222120 (100.0)	3347 (100.0)	224578 (100.0)	3420 (100.0)
<b>No. of Factories in Operation</b>						
Agro-based	72769 (41.4)	1014 (35.3)	68698 (38.4)	1005 (34.1)	70993 (38.2)	1036 (33.1)
Non-Agro Based	102939 (58.6)	1858 (64.7)	110403 (61.6)	1941 (65.9)	114697 (61.8)	2096 (66.9)
All	175708 (100.0)	2872 (100.0)	179101 (100.0)	2946 (100.0)	185690 (100.0)	3132 (100.0)

Source: Annual Survey of Industries

The ASI data is available roughly with a two-year delay and the latest data relates to 2013-14. In that year, there were 3420 units in Bihar, compared to 3347 units a year before, implying a growth of 2.2 percent (Table 4.3). For India as whole, there were 2.24 lakh units in 2013-14, compared to 2.22 lakh a year before, implying a growth of 0.9 percent. Not all these factories, however, were in operation. In Bihar, out of 3420 factories in 2013-14, 3132 were operational (91.6 percent); in India, out of 2.25 lakh factories, 1.86 lakh were operational (83.0 percent). Since the mineral resources in Bihar are extremely limited, one would have expected that the

presence of agro-based industries will be relatively more in Bihar, but this is not the case as is apparent from Table 4.3. The share of agro-based industries in Bihar is 33.1 percent, the corresponding figure being a little higher at 38.2 percent for the entire country. This actually underlines that the substantial potential that Bihar has for agro-based industries, thanks to its wide bio-diversity, is yet to be realised fully. The number of different types of factories and their basic characteristics, within the broad categories of agro-based and non-agro-based, in Bihar are presented in Appendix (Tables A 4.1 and A 4.2).

The industrial sector in Bihar is small, both in terms of number of industries operating here as well as size of the individual industrial units (Table 4.4). The share of Bihar in the total number of industries in India is only 1.52 percent, while its share in national population is more than 8 percent. As regards the size of operational industries, it is again smaller than the national average, as indicated by their capital base, employment base and value of output. The size of fixed capital of all the industries in Bihar (Rs. 8.04 thousand crore) is only 0.34 percent of the all-India figure (Rs. 2373.72 thousand crore). Such share of Bihar for other indicators are — working capital (0.58 percent), persons engaged (0.84 percent), value of output (0.84 percent) and net value added (0.58 percent). The preponderance of smaller industrial units is, however, an expected phenomenon, since the process of industrialisation is still at a nascent stage in Bihar. The only ray of hope in this otherwise disadvantaged scenario is a small increase in the share of Bihar in the number of industrial units (from 1.49 to 1.52 percent) in last three years. If this trend is continued and further strengthened, Bihar's industrial economy will be able to contribute more to its growth process.

**Table 4.4 : Industries in Bihar**

Characteristics	2011-12		2012-13		2013-14	
	India	Bihar	India	Bihar	India	Bihar
Number of Factories ( in '000)	217.55	3.23 (1.49)	222.12	3.35 (1.51)	224.58	3.42 (1.52)
Fixed capital (Rs. '000 crore)	1949.55	7.55 (0.39)	2180.26	6.47 (0.30)	2373.72	8.04 (0.34)
Working Capital (Rs. ' 000 crore)	588.79	-0.24 (-0.04)	603.41	2.48 (0.41)	1010.84	5.88 (0.58)
Persons Engaged (in '000)	13430	127 (-0.94)	12950	116 (0.90)	13538	113.59 (0.84)
Value of Output (Rs. ' 000 crore)	5776.02	60.17 (1.04)	6025.95	51.68 (0.86)	6555.25	55.30 (0.84)
Net Value Added (Rs. '000 crore)	836.7	5.64 (0.67)	851.95	1.30 (0.15)	895.34	5.15 (0.58)

Note : Figures in the parenthesis denote percent share to All India

Source : Annual Survey of Industries

The comparatively lower operational level of the industrial units in Bihar is also apparent from Table 4.5 which presents some structural ratios for industries in India and Bihar. The average size of fixed capital per factory in Bihar is only Rs. 2.57 crore (2013-14), barely one-fifth of the corresponding figure for all-India (Rs. 12.78 crore). This pattern is observed for two earlier years

also. The lower operational levels of the factories in Bihar is also indicated by the ratios between the figures for Bihar and India for other structural characteristics — fixed capital per worker (40.4 percent), workers per factory (54.6 percent), net value added per factory (34.1 percent) and net value added per person (68.6 percent).

**Table 4.5 : Structural Ratios of Industries in India and Bihar**

Characteristics	2011-12		2012-13		2013-14	
	India	Bihar	India	Bihar	India	Bihar
Fixed capital / Factory in Operation (Rs. lakh)	1110	263 (23.7)	1217	220 (18.1)	1278	257 (20.1)
Fixed capital/ Persons Engaged (Rs. lakh)	14.5	6.0 (41.1)	16.9	5.6 (33.1)	17.5	7.1 (40.4)
Workers / Factory in Operation (Number)	59	38 (63.9)	56	34 (60.7)	56	31 (54.6)
Persons Engaged /Factory in operation (Number)	76	44 (57.7)	72	40 (55.6)	73	36 (49.7)
Net Value Added / Factory in operation (Rs. lakh)	476	197 (41.3)	476	44 (9.2)	482	165 (34.1)
Net Value Added / Persons Engaged (Rs. lakh)	6.2	4.5 (71.6)	6.6	1.1 (17)	6.6	4.5 (68.6)

Note : The figures in bracket indicate Bihar's figure as percentage of India's figure.

Source : Annual Survey of Industries

**Table 4.6 : Share of Gross Value Added in Gross Value of Output**

(Rs. crore)

State	2011-12		2012-13		2013-14	
	Gross Value of Output	Gross Value Added	Gross Value of Output	Gross Value Added	Gross Value of Output	Gross Value Added
Andhra Pradesh	390934	79371 (20.3)	207128	31320 (15.1)	262684	27096 (10.3)
<b>Bihar</b>	<b>60167</b>	<b>6203 (10.3)</b>	<b>51680</b>	<b>2957 (5.7)</b>	55296	5840 (10.6)
Chhattisgarh	93014	15519 (16.7)	103528	18380 (17.8)	105991	24460 (23.1)
Gujarat	998413	110487 (11.1)	1116395	146852 (13.2)	1230642	155540 (12.6)
Haryana	243956	35700 (14.6)	278077	45252 (16.3)	296403	44612 (15.1)
Jharkhand	103053	20197 (19.6)	108512	24926 (23.0)	107794	24441 (22.7)
Karnataka	394840	112507 (28.5)	399509	63912 (16.0)	444700	67673 (15.2)
Kerala	111587	10797 (9.7)	121791	13360 (11.0)	131054	15263 (11.6)
Madhya Pradesh	156584	22719 (14.5)	163930	25468 (15.5)	172086	25604 (14.9)
Maharashtra	1005378	179222 (17.8)	1022032	202578 (19.8)	1065971	228575 (21.4)
Odisha	115419	24207 (21.0)	113696	24722 (21.7)	122379	29343 (24)
Punjab	178119	36283 (20.4)	171034	23324 (13.6)	182107	23849 (13.1)
Rajasthan	190455	43977 (23.1)	199381	35169 (17.6)	214692	32750 (15.3)
Tamil Nadu	609635	92079 (15.1)	619525	108816 (17.6)	676957	106764 (15.8)
Uttar Pradesh	332655	44595 (13.4)	361329	49206 (13.6)	411268	60825 (14.8)
West Bengal	233201	26044 (11.2)	247187	27094 (11.0)	276379	27830 (10.1)
<b>India</b>	<b>5776024</b>	<b>977358 (16.9)</b>	<b>6025945</b>	<b>1007280 (16.7)</b>	<b>6555251</b>	<b>1065112 (16.2)</b>

Note : Figures in parentheses are percentages to gross value of output

Source : Annual Survey of Industries



Another important limitation of the industries in Bihar is the comparatively lower value addition for their products, which is largely because of their lower capital base and lower employment (Table 4.6). For India as a whole, gross value added account for 16.2 percent of the gross value of output (2013-14); for Bihar, this ratio stands at only 10.6 percent. A few other states where the ratio is much lower than the national average (less than 12 percent) are — Andhra Pradesh (10.3 percent), Kerala (11.6 percent) and West Bengal (10.1 percent). Recently, the state government has adopted a policy to promote those industries which have higher value added ratios.

**Table 4.7 : Estimate of Employment and Emoluments Paid in the Factory Sector (2013-14)**

States	No. of factories in operation	No. of persons engaged	No. of unpaid family workers	No. of paid workers	Wages, salaries & bonus (Rs. lakh)	Wages, salaries & bonus per person annually (Rs.)
Andhra Pradesh	12941	522057	10766	511291	911322	178239
<b>Bihar</b>	<b>3132</b>	<b>113594</b>	<b>2291</b>	111303	<b>110631</b>	<b>99396</b>
Chhattisgarh	2271	166236	1093	165143	483647	292866
Gujarat	18069	1372669	5987	1366682	2773399	202929
Haryana	5293	612419	2198	610221	1460800	239389
Jharkhand	2347	187877	1356	186521	609658	326858
Karnataka	10062	927392	2744	924648	2069905	223859
Kerala	6143	351662	2552	349110	541317	155056
Madhya Pradesh	3437	322833	888	321945	662013	205629
Maharashtra	23369	1886025	6658	1879367	5339045	284087
Odisha	2399	260771	750	260021	589567	226738
Punjab	10394	602818	6277	596541	824034	138135
Rajasthan	7874	470078	3232	466846	878277	188130
Tamil Nadu	28597	2046553	13568	2032985	3752027	184558
Uttar Pradesh	12382	912206	5153	907053	1737049	191505
West Bengal	7895	645738	2198	643540	1072868	166713
<b>India</b>	<b>185690</b>	<b>13538114</b>	<b>76053</b>	<b>13462061</b>	<b>27241503</b>	<b>202358</b>

Source : Annual Survey of Industries

From Table 4.7, one can notice that the total employment in the large industries (covered by ASI) in Bihar in 2013-14 was 1.14 lakh, which accounts for less than 1 percent of the total employment across all states at 135.38 lakh. The industrial employment not only implies higher productivity of workers, it also means larger employment opportunities for workers who were earlier employed in low-productivity agriculture. Unfortunately, Bihar is yet to reach that stage of industrial development where substantial transfer of agricultural workers is possible, freeing its rural economy of large under-employed workers. The annual wages for workers in Bihar is only Rs. 99.40 thousand, less than half of the national average of Rs. 202.36 thousand. This wage level is indeed the lowest among all the states in India. There could be two reasons for such low level of wages industrial workers in Bihar — first, the technological base of the industries in Bihar is comparatively lower and hence the skill level of its workers is also lower and, secondly, the high rate of unemployment in Bihar which exerts obvious downward pressure on wage rates.

## 4.2 Sixth Economic Census, 2013

The industrial sector in Bihar, as elsewhere in India, is very heterogeneous with industrial units ranging from tiny/small to large. Since a large number of these industrial units are not registered, it is nearly impossible to know the number of industrial units operating in a state and any of their characteristics. In this background, the state government conducts an Economic Census from time to time. The latest Economic Census relates to the year 2013, the results of which have been released in 2016. Table 4.8 presents some selected data from the Economic Census 2013, along with the data from Economic Census 2005, which allows one to know the pace of growth of the industrial activities in the state.

**Table 4.8 : Census of Economic Enterprises in Bihar (2005 and 2013)**

(Number in '000')

Variable		2005	2013	Percentage Increase
Number of Enterprises	Rural	835	1200	43.7
	Urban	389	507	30.3
	Total	1225	1707	39.4
Own Account Enterprises	Rural	751	850	13.2
	Urban	280	309	10.3
	Total	1031	1159	12.4
Enterprises with Hired Workers	Rural	240	350	46.1
	Urban	164	198	20.9
	Total	404	549	35.9
Agriculture Enterprises	Rural	30	77	159.2
	Urban	5	8	57.0
	Total	35	85	144.0
Non-Agriculture Enterprises	Rural	806	1123	39.4
	Urban	384	499	29.9
	Total	1190	1622	36.3
No. of Persons Employed	Rural	1405	2171	54.6
	Urban	865	1073	24.0
	Total	2270	3244	42.9

Source : Directorate of Economics and Statistics, GOB

From the table, one may first note that there were 17.07 lakh economic enterprises in the state in 2013, after recording an increase of 39.4 percent over the number in 2005 (12.25 lakh). This increase of about 40 percent over a period of 8 years implies an annual growth of 4-5 percent, which may be considered as at least a modest growth rate. It is heartening to note that this growth in the number of economic enterprises is higher in the rural areas (43.7 percent) than in the urban areas (30.3 percent). When one compares the growth rates of own account enterprises (OAE) and enterprises with hired workers (EHW), it is again seen that EHW has grown at a higher rate (35.9 percent), compared to OAE (12.4 percent). This is again a positive trend, since EHWs are generally of large size, demanding more entrepreneurial activity and possibly higher capital base. Here again, one observes that the growth rate of EHWs in rural areas (46.1 percent) is higher than in the urban area (20.9 percent). This actually indicates a strong trend towards diversification of the rural economy, without which the rural income level cannot be improved. Quite expectedly, the share of the non-agricultural enterprises in the total number of enterprises is higher — in 2013, there were 16.22 lakh non-agricultural enterprises, compared to only 0.85 lakh agricultural enterprises. But, during the last 8 years, the growth of agricultural enterprises has been much faster (144.0 percent) than of the non-agricultural enterprises (36.3 percent). This higher growth of agricultural enterprises is observed both in rural and urban areas. It appears that the entrepreneurs in Bihar are now more inclined to utilise the natural advantage of Bihar for agro-based products. Finally, the census figures show that the existing economic enterprises had provided employment to 32.44 lakh persons and the growth of employment during the 8 years have been — rural (54.6 percent), urban (24.0 percent) and overall (42.9 percent). It, thus, emerges that although the expansion of economic enterprises has not impacted much the urban employment scenario, the rural areas have been much benefitted, not just in terms of employment opportunities, but possibly in terms of wage rates as well.

As regards the location of the economic enterprises, the relevant data is presented in Table 4.9. The last two columns of the table presents the percentage share of each district in the total number of enterprises and in the total population of the state. A higher share of total number of enterprises vis-à-vis the number of enterprises would indicate the relative concentration of economic enterprises in the district. By this criterion, there were 8 districts where the economic enterprises are concentrated — Patna, Nalanda, Nawada, Darbhanga, Samastipur, Begusarai, Khagaria and Bhagalpur.

**Table 4.9 : District-wise Total Number of Establishments in Bihar**

District	No. of Establishments			Percentage Share (Establishments)	Percentage Share (Population)
	Rural	Urban	Total		
Patna	54678	93294	147972	8.7	5.6
Nalanda	35508	24972	60480	3.5	2.8
Bhojpur	25118	15690	40808	2.4	2.6
Buxar	23026	7953	30979	1.8	1.6
Rohtas	35299	17520	52819	3.1	2.9
Kaimur	18656	3893	22549	1.3	1.6
Gaya	41582	18413	59995	3.5	4.2
Jehanabad	9766	5455	15221	0.9	1.1
Arwal	8743	1676	10419	0.6	0.7
Nawada	36643	11557	48200	2.8	2.1
Aurangabad	27383	7891	35274	2.1	2.4
Saran	38613	13785	52398	3.1	3.8
Siwan	36443	8280	44723	2.6	3.2
Gopalganj	26548	8184	34732	2.0	2.5
W. Champaran	42325	20451	62776	3.7	3.8
E. Champaran	43569	20008	63577	3.7	4.9
Muzaffarpur	49340	19823	69163	4.1	4.6
Sitamarhi	32829	7806	40635	2.4	3.3
Sheohar	7899	1841	9740	0.6	0.6
Vaishali	47796	8298	56094	3.3	3.4
Darbhanga	49274	24154	73428	4.3	3.8
Madhubani	50781	7922	58703	3.4	4.3
Samastipur	76246	11020	87266	5.1	4.1
Begusarai	40111	16218	56329	3.3	2.8
Munger	12888	13399	26287	1.5	1.3
Sheikhpura	5704	5832	11536	0.7	0.6
Lakhisarai	13300	7790	21090	1.2	1.0
Jamui	22286	6175	28461	1.7	1.7
Khagaria	28597	5765	34362	2.0	1.6
Bhagalpur	26396	28876	55272	3.2	2.9
Banka	29153	4340	33493	2.0	2.0
Saharsa	18023	6347	24370	1.4	1.8
Supaul	26263	5209	31472	1.8	2.1
Madhepura	29164	5483	34647	2.0	1.9
Purnea	38651	14253	52904	3.1	3.2
Kishanganj	19908	6719	26627	1.6	1.6
Araria	34910	8281	43191	2.5	2.7
Katihar	37090	12316	49406	2.9	3.0
<b>Bihar</b>	<b>1200509</b>	<b>506889</b>	<b>1707398</b>	<b>100.0</b>	<b>100.0</b>

Source : Directorate of Economics and Statistics, GOB

### 4.3 Agro-based Industries

The cultivators in Bihar produce a variety crops, besides foodgrains, thanks to the wide bio-diversity of the state. These crops include oilseeds, fibres, fruits, vegetables, sugarcane and tea. In addition, Bihar also produces a substantial amount of milk. Thus Bihar offers enormous opportunities for agro-based industries.

#### Food Processing Industry

Table 4.10 presents the current status of food processing industries in Bihar. The number of food processing industries in Bihar in 2015-16 was 399, of which 266 (66.7 percent) were operational. By August, 2016, there were a few additions, resulting in 407 units, of which 278 (68.3 percent) were operational. Although the range of products of the agro-based industries in Bihar is quite wide, it is the cereal-based industries (rice, wheat and maize) which dominate the sector. No less than two-thirds of the agro-based industries in Bihar are engaged in processing of cereals. The total employment under the Food Processing Industry is 48.4 thousand.

**Table 4.10 : Details of Food Processing Industry in Bihar**

Types of Industries	2015-16		As on August, 2016				
	No. of Units		No. of Units		Financial Progress (Rs. crore)		Employment (Nos.)
	Total	Operational	Total	Operational	Approved Project Cost	Grant Released	
Rice Mills	174	115	174	120	1607.45	184.10	6438
Wheat Milling	44	33	44	33	355.17	57.89	1806
Maize Processing	41	29	43	32	504.72	52.71	2120
Rural Agri Business Centres	52	37	53	37	466.23	74.32	1807
Cold Storage	3	0	3	0	15.10	1.35	122
F & V Processing	16	7	16	8	108.32	13.46	580
Milk Processing	9	6	9	6	242.42	16.44	586
Makhana Processing	4	2	4	2	5.55	0.67	70
Honey Processing	3	3	3	3	2.60	0.53	41
Biscuits Manufacturing	10	8	12	8	213.13	26.10	1946
Edible Oil Manufacturing	10	8	10	9	507.50	33.35	2001
Ice Cream	6	4	7	4	34.73	3.53	203
Other Projects	25	14	27	16	316.39	29.40	2087
Food Park	2	0	2	0	309.80	3.00	28597
<b>Total</b>	<b>399</b>	<b>266</b>	<b>407</b>	<b>278</b>	<b>4689.10</b>	<b>496.86</b>	<b>48404</b>

Source : Department of Industry, Directorate of Food Processing, GOB

The Directorate of Food Processing was providing special assistance to the sector under the following schemes which were operational up to June, 2016:

- (i) Integrated Development Project : Under this project, the ongoing subsidy for cluster scheme is payable at 40 percent and, for individual units, it is 35 percent. The project provides the following facilities:
  - (a) For the capacity expansion under the cluster scheme, the maximum subsidy amount payable is Rs. 10.00 crore and, for individual unit, it is Rs. 5.00 crore. For the scheduled castes / scheduled tribes / women / handicapped entrepreneurs, an additional 5 percent subsidy is payable.
  - (b) For the projects costing of Rs. 50-100 crore, an interest subsidy of 3 percent and on the projects costing above Rs. 100 crore an interest subsidy of 6 percent is also payable.
- (ii) Food Park Scheme : Under this scheme, the rate of payable subsidy has been raised to 30 percent with a maximum of Rs. 50 crore. The establishment of a Food Park at Buxar has been approved. In 2013-14, a sum of Rs. 30 crore was approved for subsidy payment.
- (iii) Modernisation Scheme for Established Rice Mills : Under National Food Processing Mission of the central government, the traditional rice milling units are paid 25 percent subsidy for modernization. Under this scheme, an additional state subsidy of 15 percent is payable in accordance with the guidelines of the central government.
- (iv) Cold Storage Scheme : The cold storage with a capacity of 5-10 thousand tonnes is paid a subsidy of 30 percent on the capital expenditure. For a capacity of more than 10 thousand tonnes, 35 percent subsidy will be payable. The maximum amount of subsidy will be Rs. 5 crore.
- (v) Scheme for Silo for Maize Storage : Under this scheme, the benefit of subsidy will be given for establishment of silos for the storage of maize. The construction of silo with a storage target of 5 thousand tonnes of maize will be considered as one unit and a subsidy of 35 percent will be payable on this.

### Sugar Industries

The sugarcane is grown in about 3 lakh hectares in Bihar, approximately 6 percent of the total area under cultivation. The state government, therefore, promotes sugar industry in the state to strengthen rural economy. This industry not only creates direct employment, but substantial indirect employment as well through a number of related activities.

At present, 9 sugar mills are operating in the state in the private sector. There are also 2 new sugar mills under the Bihar State Sugar Corporation which were handed over to HPCL in 2011 on long term lease. During 2015-16, 515 lakh quintals of sugarcane was crushed in Bihar, producing 50 lakh quintals of sugar (Table 4.11). This production level was about 10 percent lower than in 2014-15 when 574 lakh quintals of sugarcane was crushed. However, the recovery rate (9.8 percent) was higher in 2015-16 than a year ago (9.2 percent).

**Table 4.11 : Performance of Sugar Mills**

Name of Sugar Mill	Sugar-cane Crushed (lakh qntl.)	Sugar Produced (lakh qntl.)	Recovery (Percentage)	Sugar-cane Crushed (lakh qntl.)	Sugar Produced (lakh qntl.)	Recovery (Percentage)	Sugar-cane Crushed (lakh qntl.)	Sugar Produced (lakh qntl.)	Recovery (Percentage)
	<b>2013-14</b>			<b>2014-15</b>			<b>2015-16</b>		
Bagha	82.49	7.89	9.6	79.86	7.55	9.4	74.91	7.44	9.9
Harinagar	139.00	12.94	9.3	125.67	11.52	9.2	115.08	11.51	10.0
Narkatiagunj	95.44	9.11	9.6	82.08	7.65	9.3	75.84	7.58	10.0
Majhauria	60.75	5.33	8.8	48.47	4.77	9.8	42.20	4.03	9.5
Sasamusa	28.75	2.56	8.9	18.44	1.55	8.4	12.80	1.16	9.1
Gopalganj	50.25	4.53	9.0	38.81	3.69	9.5	33.03	3.30	10.0
Sidhwalia	62.62	5.66	9.9	51.56	4.78	9.3	45.84	4.30	9.4
Riga	52.84	4.70	8.9	47.95	4.20	8.8	36.45	3.40	9.3
Hasanpur	35.27	2.94	8.3	34.55	3.11	9.0	31.13	3.19	10.2
<b>Sub Total</b>	<b>607.41</b>	<b>55.66</b>	<b>9.2</b>	<b>527.39</b>	<b>48.82</b>	<b>9.23</b>	<b>467.28</b>	<b>45.91</b>	<b>9.8</b>
<b>New Sugar Mills</b>									
Lauriya	26.17	1.80	6.9	25.10	2.00	8.0	27.22	2.58	9.5
Sugauli	30.42	2.04	6.7	21.96	1.85	8.4	20.73	1.84	8.9
<b>Sub Total</b>	<b>56.59</b>	<b>3.84</b>	<b>6.8</b>	<b>47.06</b>	<b>3.85</b>	<b>8.2</b>	<b>47.95</b>	<b>4.42</b>	<b>9.2</b>
<b>Total</b>	<b>664.00</b>	<b>59.50</b>	<b>9.0</b>	<b>574.45</b>	<b>52.67</b>	<b>9.2</b>	<b>515.23</b>	<b>50.33</b>	<b>9.8</b>

Source : Department of sugarcane, GOB

At present, the following schemes are in operation for supporting sugar mills and sugarcane growers :

- The concession to sugar mills include reduction in VAT on ethanol and denatured spirit (from 12.5 to 4.0 percent) and abolition of literage fee on ethanol.
- The farmers are given a subsidy of Rs. 135 per quintal on purchase of certified sugarcane seed of improved variety, declared by sugar mills. This benefit is available for a maximum of 2.5 acres and, once a farmer has availed the subsidy, he will not be entitled for the subsidy on that variety for next three years.

- (c) There is also a subsidy to the sugar mills for growing foundation seed at the rate of Rs. 25,000 per hectare. Further, there is also a provision of subsidy for growing breeder seed through research stations — Indian Institute of Sugarcane Research (Lucknow) and Sugarcane Research Institute (Pusa).
- (d) There is training facility for farmers for use of improved variety of sugarcane, selected from outside the state, and sowing the seeds by trench and rig-pit method.
- (e) There is an incentive amount for inter-cropping with sugarcane under National Food Security Mission (NFSM) programme.
- (f) There is an arrangement for technical publicity and extension scheme, both of which are closely supervised and monitored.

Despite good soil favourable to the sugarcane cultivation, productivity level is low in Bihar for several reasons. Presently, only 25-30 percent of the area under sugarcane is having irrigation facility and even this irrigated area gets only 1-2 waterings on an average because, during April-June, water is not available in the canal. Due to poor drainage system, there is also a problem of water logging in cane fields during the rainy season. The state is facing shortage of high-yielding varieties of sugarcane. The state government, in coordination with Sugarcane Research Institute (SRI) and sugar mills, is making an attempt to solve this problem.

### Dairy Industry

Because of its close linkage with farming operations, animal husbandry is a traditional occupation for rural households in Bihar. The dairy industry in the state is, therefore, very large; but it is the state-run Bihar State Milk Cooperative Federation (COMFED) which plays a pivotal role in dairy industry. Established in 1983, COMFED is the implementing agency for Operation Flood Programme, working towards White Revolution. For the establishment of the milk cooperatives, COMFED has adopted a three-tier pattern, under which there is milk producers' cooperative society at the village level, milk union at the district level and, finally, milk federation at the state level.

There were 19.5 thousand milk cooperative societies in 2015-16, compared to 18.4 thousand societies a year ago (Table 4.12). It implies an annual growth of 6.0 percent. However, of the total number of societies, 14.0 thousand were operative (71.8 percent) and 6.0 thousand were registered (30.8 percent). From Table 4.13, one can observe that the total milk procurement per day in 2015-16 was 1740 thousand kgs. and this amount has recorded a steady growth rate of 13.5 percent in the last five years. This annual growth rate varies widely among the 9 projects, the highest growth rate being recorded by Magadh Project (55.8 percent) and the lowest by



Mithila Project (9.5 percent). As regards milk procurement per functional dairy, it was 124.5 kilo litres in 2015-16 (Table 4.14). This amount has increased from 122 kilo litres (2010-11) to 125 kilo litres (2015-16).

**Table 4.12 : Number of Dairy Cooperative Societies under Different Milk Union/Project**

Location of Union/Project	2015-16			2014-15		
	Organised Societies	Working Societies	Registered Societies	Organised Societies	Working Societies	Registered Societies
VaishalPatliputra Milk Union, Patna	3973	2490	1228	3840	2929	1218
DeshratnaDr.Rajendra Prasad Milk Union, Barauni	2162	1970	1094	2124	1987	1079
Mithila Milk Union, Samastipur	2305	1841	1036	2186	2001	879
Tirhut Milk Union, Muzaffarpur	3181	1904	947	3027	1964	887
Shahbad Milk Union, Ara	3206	2432	1205	3007	2375	1205
Vikramshila Milk Union, Bhagalpur	1616	1027	250	1404	813	234
Magadh Dairy Project, Gaya	1656	1319	183	1461	1124	160
Kosi Dairy Project, Purnea	1384	987	87	1276	950	80
Ranchi Dairy Project , Ranchi	60	46	12	60	46	12
<b>Total</b>	<b>19543</b>	<b>14016</b>	<b>6042</b>	<b>18385</b>	<b>14189</b>	<b>5754</b>

Source : COMFED, GOB

**Table 4.13 : Progress of Unions and Projects in Daily Milk Collection**

(in 000 kgs)

Union/Project	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
Vaishal Patliputra Milk Union, Patna	210.15	224.85	282.09	318.91	307.73	11.8
Deshratna Dr. Rajendra Prasad Milk Union, Barauni	314.12	343.80	375.20	409.72	457.52	9.7
Mithila Milk Union, Samastipur	250.98	282.99	340.57	354.51	353.67	9.5
Tirhut Milk Union, Muzaffarpur	115.12	133.53	181.87	196.87	191.55	15.1
Shahbad Milk Union, Ara	129.44	176.17	206.24	257.57	258.29	19.4
Vikramshila Milk Union, Bhagalpur	35.73	48.34	54.88	70.13	72.94	19.7
Magadh Dairy Project, Gaya	7.50	13.19	22.55	39.53	39.82	55.8
Kosi Dairy Project, Purnea	7.13	15.55	20.98	29.24	41.48	51.5
Ranchi/ Bokaro /Jamshedpur Dairy	4.74	6.48	10.50	13.84	17.43	40.4
<b>Total</b>	<b>1074.93</b>	<b>1244.75</b>	<b>1495.02</b>	<b>1690.24</b>	<b>1740.43</b>	<b>13.5</b>

Source : COMFED, GOB

**Table 4.14 : Milk Procurement per Functional Dairy Cooperative Society**

(Kl. per day)

Location of Union/Project	2011-12	2012-13	2013-14	2014-15	2015-16
Patna	101.5	97.37	122.17	108.88	123.58
Barauni	213.1	210.4	229.62	206.2	232.24
Samastipur	216.5	202.28	243.44	177.17	192.10
Muzaffarpur	87.6	87.91	119.73	100.24	100.60
Ara	78.8	90.02	105.39	108.49	106.20
Bhagalpur	84.3	74.83	84.95	86.26	71.02
Gaya	18.8	23.64	40.41	35.08	30.19
Purnea	23.5	34.02	45.90	30.78	42.03
Ranchi Dairy	121.5	140.89	213.55	277.64	347.17
<b>Total</b>	<b>121.80</b>	<b>118.29</b>	<b>141.96</b>	<b>120.59</b>	<b>124.18</b>

Source : COMFED, GOB

**Table 4.15 : Activities by COMFED**

Indicators	2011-12	2012-13	2013-14	2014-15	2015-16
<b>Cooperative Societies</b>					
Organised	11638	13691	16675	18385	19543
Operational	8823	10524	12654	14189	14016
Registered	3917	4943	5420	5754	6042
No. of Members (lakh)	6.29	7.59	8.73	9.42	10.04
<b>Collection of Milk</b>					
Collection of Milk (lakh kg/day)	10.75	12.45	14.95	16.90	17.40
<b>Marketing of Products</b>					
No. of Retail Outlets	8388	9558	10944	12299	13099
Milk (lakh litres/day)	8.17	9.20	10.76	11.52	12.18
Ghee (tonnes)	1323	1717	2043	1669	1643
Lassi (tonnes)	3242	6426	6747	4385	4103
Peda (tonnes)	745	1242	1638	1173	1190
Paneer (tonnes)	2090	3022	3542	3385	3946
Dahi (tonnes)	4469	3132	8595	7498	8088
GulabJamun (tonnes)	566	1105	1331	1152	1220
Ice-Cream (tonnes)	663	1083	1248	1702	1743
<b>Services</b>					
No. of Artificial Insemination Centres	2021	2329	2897	3117	3275
Artificial Insemination (lakh)	11.85	15.66	18.44	20.30	21.37
Vaccination (lakh)	16.25	17.73	22.81	15.53	18.05
De-worming (lakh)	8.75	12.92	11.67	12.92	16.46
Seed Distribution (tonnes)	485.43	757.14	885.61	930.93	1016.79
Cattle Feed Distribution (tonnes)	61097	61273	54707	56143	62130

Source: COMFED, GOB

The activities of the COMFED include procurement of milk, processing milk to produce a number of milk products, marketing of the products and, finally, providing a number of services for the animal husbandry sector. Table 4.15 presents the details of all these activities by COMFED during the last five years.

### Tea

In the last two decades, Bihar has gradually appeared as an important tea producing state. Tea is presently cultivated in about 50 thousand acres in Kishanganj district — Pothia block (50 percent), Thakurganj (40 percent) and Kishanganj (10 percent). The annual production of tea in Bihar is about 4000 tonnes. There are 7 tea processing plants in Kishanganj, with an annual output exceeding 2300 tonnes. Since there is a scope of additional tea processing units in Kishanganj, the state government has already announced subsidies and incentive packages for new tea processing plants.

## **4.4 Non-Agro-Based Industry**

### Handloom

At present, there are more than 32 thousand weavers in Bihar who are completely dependent on this sector for their livelihood. There are 1089 primary handloom weaver cooperative societies, with nearly 15 thousand handloom operating under them. The majority of the weavers operate outside the cooperative fold. There are 2 apex level marketing organisations — Bihar State Handloom Cooperative Union and Bihar State Wool and Sheep Union. In addition, there are 6 Regional Handloom Unions, located in Nalanda, Sitamarhi, Siwan, Madhubani, Purnea and Bhagalpur. Table 4.16 presents specific handloom products of different districts in Bihar.

**Table 4.16 : Handloom Concentrated Districts in Bihar**

District	Products
Bhagalpur	Silk, Cotton, Furnishing cloth, Staple chadar, Exportable Silk and cotton cloth.
Banka	Tasar Silk, Exportable Silk Cloth
Gaya	Cotton and Silk Cloth
Nalanda	Ornamental Curtain, Bed Cover, Interior decoration material and ornamented cloth
Nawada	Tasar Silk and ladies dress material
Darbhanga, Madhubani, Sitamarhi	Fine Cotton long cloth, dhoti, shirting
Aurangabad, Rohtas	Woolen Blanket, Woolen Carpet and Sari
Kaimur	Woolen Carpet, Banarasi Sari
Patna, Siwan	Cotton cloth and Furnishing Cloth
Purnea, Katihar	Jute bags, Jute-blended material, Interior decorative material

Source: Department of Industries, Handloom, GOB

The state government has launched the ambitious Mukhyamantri Integrated Handloom Development Scheme (2012-16) to help the weavers. The scheme provides the following facilities — (a) Rs. 15,000 for each weaver to purchase new loom, (b) corpus money of Rs. 5000 per weaver for purchasing raw materials, (c) Rs. 40,000 per weaver for construction of workshed, (d) establishment of 40 Common Facility Centres, (e) establishment of Bunkar Hut at Bhagalpur (100 stalls), Gaya, Aurangabad, Madhubani, Patna and Siwan (50 stalls each), (f) corpus fund for Yarn Depot at Bhagalpur and Banka, and (g) provision of Bunkar stipend.

There are also 8 state government institutions for imparting training to weavers. These institutions are located at Chakand (Gaya), Amarpur (Banka), Obra (Aurangabad), Patna town (Patna), Baran (Bhagalpur), Kako (Jehanabad), Jhinganagar (Nalanda) and Purnea town (Purnea). A sum of Rs. 800 per month is paid to the trainees during the training period. The target and achievement of this training programme during last 5 years is presented in Table 4.17. The achievement rates, as is apparent from the table, has been around 80 percent in all the years.

**Table 4.17 : Targets and Achievements of Training Programmes**

No. of Trainees	2011-12	2012-13	2013-14	2014-15	2015-16
Target	204	204	204	204	204
Achievement	164	180	163	160	167
Achievement Percentage	80.4	88.2	79.9	78.4	81.9

Source : Department of Industries, Handloom, GOB

The state government has decided to collect the data on working handloom in the following districts — Bhagalpur, Aurangabad, Banka, Gaya, Kaimur, Nalanda, Nawada, Rohtas, Madhubani, Siwan, Patna, Muzaffarpur, Katihar, Khagaria, Jehanabad, West Champaran and Samastipur. During the survey, a UID (Unique Identification Number) will be engraved on each handloom so that all support schemes in future can be implemented smoothly. This survey is presently going on.

### Powerloom

The powerlooms in Bihar are mainly concentrated in Bhagalpur, Banka and Gaya. There are about 14,000 powerlooms which produce staple chadar, furnishing clothes, etc. The training centre at Nathnagar (Bhagalpur), run by the Ministry of Textiles of the central government, provides training to 120 powerloom weavers each year. For powerloom workers, the state government provides a subsidy of Rs. 3.00 per unit for the consumption of electricity.

The state government has recently taken up a scheme for in-situ upgradation of plain powerlooms in the state. The prime objective of this scheme is to provide financial assistance to economically weaker low-end powerloom units for upgradation of ordinary looms into automatic

looms, with additional features like weft stop motion, warp stop motion, semi-positive let off motion, dobby, jacquard, etc. In 2016-17, 320 powerlooms have been targeted for upgradation in Bhagalpur and 100 powerlooms in Gaya. For this, the share of central government is 50 percent and state government is 40 percent; the rest 10 percent is contributed by the beneficiary. The state government has already allotted Rs. 38.00 lakh for this schemes and another Rs. 10.00 lakh is expected soon.

### Sericulture

The potential for sericulture in Bihar is substantial. To promote this sector, the Chief Minister Tasar Development Scheme was started in 2012-13. Under this, a sum of Rs. 170.90 crore has been approved under state plan for Tasar Area Development in six districts of south Bihar (Banka, Munger, Nawada, Kaimur, Jamui and Rohtas) and some water-logged areas in north Bihar where plantation of Arjun and Asan trees is feasible. The main activities under this scheme include — (a) plantation of Tasar Food plant in 10,200 hectares, (b) seed production and rearing through 408 Self-Help Groups under the leadership of Resham Mitra, (c) formation of 155 Self-Help Groups for the production of yarn through Common Facility Centres (CFC), (d) strengthening of Pilot Project Centre, and (e) establishment of Cocoon Bank.

Table 4.18 presents the achievements in the sericulture sector during the last three years. As regards plantation, the area under castor has been showing a downward trend, but the areas under Mulberry and Tassar have shown an upward trend. For Tassar, the increase has been substantial, from 575 hectares in 2013-14 to 2325 hectares in 2015-16. The production levels of DFL (Disease Free Layings), cocoon and raw silk have also generally increased.

**Table 4.18 : Achievements in Sericulture**

Year	Type of Silk	Plantation ( hectare)	DFLs Rearing ( lakh)	Total Cocoon Production	Raw Silk (tonnes)
2013-14	Mulberry	117	5.07	122.73 (tonne)	15.08
	Tassar	608	7.10	386.94 (lakh)	37.89
	Castor	575	0.81	6.50 (tonne)	5.20
2014-15	Mulberry	184	5.04	162.16 (tonne)	19.50
	Tassar	5198	7.48	293.88 (lakh)	32.95
	Castor	232	1.19	10.20 (tonne)	8.16
2015-16	Mulberry	136	5.78	202.56 (tonne)	22.55
	Tassar	2325	9.21	466.00 (lakh)	42.00
	Castor	161	1.19	9.50 (tonne)	7.60

Note : DFLs – Disease Free Layings

Source : Department of Industries, Sericulture, GOB

Under the Mukhyamantri Kosi Mulberry Scheme, production of mulberry is being promoted in the districts of Saharsa, Supaul, Madhepura, Araria, Kishanganj, Katihar and Purnea. This scheme will be operational till 2016-17, at a total cost of Rs. 118.04 crore. The facilities under this scheme includes — training, study tour, and economic assistance for silk worm rearing and production of yarn and clothings.

Two year vocational training course in Silk Technology is being conducted in Bihar Institute of Silk & Textiles, Nath Nagar, Bhagalpur. Construction of building for Textile Testing Lab & CAD Unit in this institute is in process. There are two Mulberry Reeling Training Centre, Bhagalpur/Kishanganj, which impart training of mulberry reeling/spinning for 40 persons every year.

#### Bhagalpur Mega Handloom Cluster

For Bhagalpur and Banka districts, the state government has established Bhagalpur Mega Handloom Cluster where weavers receive benefits under many components. Under this scheme of the central Ministry of Textiles, 10 block level clusters, each with a Common Facility Centre (CFC), two dye houses, one design studio, and a product development centre have been sanctioned. In each CFC, facilities are available for pre-loom activities, post-loom activities, dyeing and designing. The National Institute of Fashion Technology (NIFT), Patna is providing Cluster Monitoring and Technical Assistant (CMTA) for this scheme. The state government contributes 10-25 percent share in different components in the scheme.

#### Jute Park

A Jute Park has been established in Maranga (Purnea) with an investment of Rs. 42.36 crore, under the Public-Private-Partnership (PPP) mode. The state government has provided 44.30 acres of land as equity and Rs. 2.00 crore as a grant. In this park, two private units are already functional. They are producing jute yarn, jute twin, jute cloths and other products. It has created direct employment for about 500 people and indirect employment for about 800 people.

#### Leather Industries

Bihar has substantial potential for leather industries, as its share in country's total animal population is sizeable — cow (8.0 percent), goat (12.1 percent), buffalo (4.2 percent) and sheep (1.9 percent). According a survey, conducted by the Central Leather Research Institute (CLRI),

Chennai, Bihar annually produces 2.64 million bovine hides and 5.09 million bovine skins. The state is known for best quality goat skins, cow hides, buffalo skins and calf skins. The goat skins are generally smaller in size, but it is the best material for glazed leather products which are mostly exported.

There are seven markets in the state for hides and skins — Patna, Ara, Aurangabad, Munger, Muzaffarpur, Katihar and Purnea. The major markets are — Ara for buffalo hides, Muzaffarpur for buffalo calf skin and Patna for goat skin. According to an estimate, 7-8 thousand pieces of goat skins and 2-3 thousand pieces of cow hides are transported daily from Muzaffarpur to destinations outside the state. Some of the important producers of leather products in Tamil Nadu collect hides and skins from Bihar through their own agents. The local tanning industries are confined to a few tanneries in Muzaffarpur and Bata Tannery at Mokama Ghat. As a result, most raw materials for leather products found in Bihar find their way to Chennai, Kanpur and Kolkata.

#### Khadi and Village Industries

Functioning under the central Ministry of Micro, Small and Medium Enterprises (MSME), the Khadi and Village Industries Commission (KVIC) promotes rural industries in the country, including Khadi producing units. The KVIC functions through KVIC Directorate and KVI Board at the state level. Its promotional activities include skill development, transfer of technology, research and development, marketing, etc. KVIC is also responsible for — Prime Minister's Employment Generation Programme (PMEGP) and Scheme of Fund for Regeneration of Traditional Industries (SFRTI). The second programme involves cluster development activities for traditional products of khadi and village industries.

The Centrally Sponsored Scheme of PMEGP was started in 2008, by merging erstwhile Rural Employment Guarantee Programme (REGP) and Prime Minister Rojgar Yojana (PMRY). This scheme aims at generating employment opportunities by providing bank credit, specially to the traditional artisans. The scheme is implemented by — Khadi and Village Industries Commission (KVIC), Khadi and Village Industries (KVI) Board at the state level, and the District Industries Centre (DIC).

**Table 4.19 : Performance of PMEGP**

Agencies		KVIC	KVI Board	DIC	Total
<b>2013-14</b>					
Target/Margin Money	Physical (Nos.)	559 (10.0)	559 (10.0)	4473 (80.0)	5591 (100.0)
	Financial (Rs. lakh)	1285.81 (10.0)	1285.81 (10.0)	10288.76 (80.0)	12860.38 (100.0)
Margin Money disbursed by Nodal banks	Physical (Nos.)	341 (11.0)	176 (5.7)	2576 (83.3)	3093 (100.0)
	Financial (Rs. lakh)	900.89 (11.7)	467.93 (6.1)	6306.64 (82.2)	7675.46 (100.0)
<b>2014-15</b>					
Target/Margin Money	Physical (Nos.)	2294 (30.0)	2294 (30.0)	3060 (40.0)	7648 (100.0)
	Financial (Rs. lakh)	3321.96 (30.0)	3321.96 (30.0)	4429.27 (40.0)	11073.19 (100.0)
Margin Money disbursed by Nodal banks	Physical (Nos.)	280 (16.1)	130 (7.5)	1324 (76.4)	1734 (100.0)
	Financial (Rs. lakh)	629.73 (14.4)	389.54 (8.9)	3338.79 (76.6)	4358.06 (100.0)
<b>2015-16</b>					
Target/Margin Money	Physical (Nos.)	909 (30.0)	909 (30.0)	1211 (40.0)	3029 (100.0)
	Financial (Rs. lakh)	1817.16 (30.0)	1817.16 (30.0)	2422.88 (40.0)	6057.20 (100.0)
Margin Money disbursed by Nodal banks	Physical (Nos.)	189 (7.8)	195 (8.0)	2046 (84.2)	2430 (100.0)
	Financial (Rs. lakh)	544.60 (8.3)	543.00 (8.2)	5500.95 (83.49)	6588.55 (100.0)

Note : The Figures in the parenthesis denote percent share to total

Source : Department of Industry, GOB

The implementation on the performance of this programme for the last 3 years is presented in Table 4.19. In 2015-16, although the achievements of both KVIC and KVI Board were very poor, the performance of the DIC was very good; against a target of margin money of Rs. 2423 lakh for 1211 persons, DIC was able to disburse Rs. 5501 lakh to 2046 persons. In the earlier years (2013-14 and 2014-15), all the three implementing agencies had failed to achieve their respective targets and, thus, the overall achievement was also very low. From the data in Table 4.19, it is quite apparent that DICs play a major role in the implementation of PMEGP, the role of other two agencies (KVIC and KVI Board) being very limited.

#### 4.5 Support Institutions

Within the Department of Industries, there are important institutions which are meant for promoting Industrialisation in Bihar — Udyog Mitra, District Industries Centre (DIC) and Bihar Industrial Area Development Authority (BIADA). As regards overall level of expenditure of the Department of Industries, it was Rs. 1230 crore in 2015-16 and it had shown a steady increase in since 2011-12 (Table 4.20). The eagerness of the state government promote industrialisation is also reflected when one notices that the share of expenditure on industries in the total expenditure on economic services has also increased over the years. Compared to a share of 2.5 percent in 2011-12, this share was 3.3 percent in 2015-16.



**Table 4.20 : Expenditure on Industries by State Government**

(Rs. crore)

Expenditure	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
Expenditure on Industries						
(a) Revenue	363	534	580	561	1201	27.7
(b) Capital	66	49	535	3	29	-35.7
(c) Total	429	583	1115	564	1230	23.0
Expenditure on Economic Services	17475	20246	24871	29173	37305	20.7
Expenditure on Industries as a percentage of Expenditure on Economic Services	2.5	2.9	4.5	1.9	3.3	-

Source : Bihar Budget

**Udyog Mitra**

The institution of Udyog Mitra was established under the Department of Industries to help prospective entrepreneurs. Udyog Mitra also prepares monitoring reports of the schemes implemented by the District Industries Centres (DIC). Table 4.21 presents the financial and physical achievement of Udyog Mitra during the last five years. In 2015-16, Udyog Mitra was able to spend Rs. 92.37 core, out of the allotted amount of Rs. 110.29 crore, implying an utilisation of ratio of 83.8 percent. This utilisation ratio was lower than the ratio in 2014-15, but the number of benefitted entrepreneurs was 906, much larger than 664 a year before.

**Table 4.21 : Physical and Financial Achievements of Udyog Mitra**

Year	Amount Allotted (Rs. lakh)	Amount spent (Rs. lakh)	No. of Entrepreneurs benefitted	Amount Spent (Percentage)
2011-12	100.00	67.48	753	67.5
2012-13	104.00	78.73	596	75.7
2013-14	120.00	101.13	583	84.3
2014-15	98.60	88.94	664	90.2
2015-16	110.29	92.37	906	83.8

Source : Udyog Mitra, GOB

The Udyog Mitra has prepared the district profile of all the districts in the state and completed the land-mapping work. It has also been nominated as the implementing agency for National Mission for Food Processing, a scheme launched by the central government. Under the Cluster Development scheme of the central government, Udyog Mitra is working for the development of 13 clusters across the state. This work includes training, establishment of 'Suvidha Kendras', marketing assistance, and redressal of specific problems faced by entrepreneurs. A private firm has been appointed by Udyog Mitra for this task of cluster development.

### District Industries Centre

To help the entrepreneurs for setting up industries, District Industries Centres (DIC) were established. The DICs place special emphasis on micro, small and medium enterprises. As mentioned before, DICs are also the principal implementation agency for Prime Minister's Employment Generation Programme (PMEGP). The details of the extent of the involvement of DIC in PMEGP has already been presented in Table 4.19.

### Bihar Industrial Area Development Authority (BIADA)

Under the statutory provisions of the Bihar Industrial Area Development Act, 1974, BIADA was established to promote industrialisation in the state. It acquires land for being allotted to the investors for establishment of industrial units, after developing necessary infrastructure like roads, power, water, etc. Presently, BIADA has four regional offices and industrial areas in Patna, Bhagalpur, Darbhanga and Muzaffarpur. Till September, 2016, BIADA has acquired 5910.41 acres of land, out of which 599.16 acres are reserved for infrastructure, administrative blocks, etc., and 454.96 acres are still vacant. The remaining land has been allotted in which 1559 units are functioning (Table 4.22).

**Table 4.22 : Details of BIADA Land and Activities (September, 2016)**

Regional Office	Land Acquired (acres)	Land Reserved for Infrastructure, Administrative Blocks, Roads etc. (acres)	Land remaining vacant (acres)	No. of Running Units	
				2015-16	September, 2016
Patna	3124.42	259.36	32.5	631	645
Bhagalpur	1347.29	101.42	30.38	259	278
Dharbhanga	411.96	55.16	27.97	295	283
Muzaffarpur	1026.74	183.22	364.11	354	353
<b>Total</b>	<b>5910.41</b>	<b>599.16</b>	<b>454.96</b>	<b>1539</b>	<b>1559</b>

Source : BIADA, GOB

## **4.6 Industrial Policy of Bihar, 2016**

The state government had earlier formulated an Industrial Policy in 2011. Based on the working experience, it had prepared a new policy document 'Industrial Investment Promotion Policy' in 2016. This policy aims to achieve an annual growth rate of 15 percent for the industrial sector, so that its contribution to the GSDP can gradually reach to about 25 percent. To achieve this goal, the main strategy of this policy is to focus on — (a) development of support infrastructure, (b) prioritising core sectors with emphasis on advanced technology, (c) skill development, (d) modified structured package of assistance, and (e) balanced regional development.

Towards strengthening the support infrastructure, the policy includes allotment of vacant industrial land for priority sector projects, establishment of new industrial area and expansion of existing ones, recovery of land from sick/closed units, promotion of private participation for increased availability of industrial land, establishment of air cargo complex, upgradation of facilities at container freight terminal, increasing the supply of quality/reliable power, establishment of gas pipeline framework, promotion of MSME clusters, and promotion of private industrial parks.

After careful considerations, the policy has identified the following 10 sectors as the priority sectors for industrial development of Bihar — (i) Food Processing, (ii) Tourism, (iii) Small Machine Manufacturing, (iv) IT, ITeS, Electrical and Electronic Hardware Manufacturing, (v) Textile, (vi) Plastic and Rubber, (vii) Renewable Energy, (viii) Healthcare, (ix) Leather, and (x) Technical Education. The above list of sectors, however, is only indicative and the state government may suitably revise the list from time to time.

The state government recognises the need for fiscal incentives to improve the competitiveness of the industrial units operating in the state. Accordingly, it has formulated a customised package of fiscal incentives which will trigger the next round of industrial growth in Bihar. Among others, these incentives will include — reimbursement of stamp duty/ registration fee, reimbursement of land conversion fees, interest subvention and a number of tax related incentives, the last one being 70 percent of the approved project cost for the non-priority sector and 100 percent for the priority sector. All these fiscal incentives will be dovetailed to the policies of the central government towards promoting industrial growth. There will also be special incentives for disadvantaged entrepreneurs — scheduled caste/ tribe, women, differently abled persons, war widows, acid attack victims or third gender. This new Industrial Policy of the state government is aimed at creating an industry-friendly environment for maximising investment in Bihar, specially in the priority sectors. The overall objective is to maximise the value addition to the state's natural resources by setting up industries across the state, generating revenue and creating employment.

The efforts to promote industrialisation involves helping the existing units at one hand and promoting new industrial units on the other. For the second activity, the state government has also prepared a Start-Up Policy which tries to address the specific needs of a new industrial units. This policy has defined Start-Up as an entity, registered in Bihar not prior to five years, with an annual turnover not exceeding Rs. 2.5 crore in any preceding financial year. It should be working towards innovation, development, deployment or commercialisation of new products, processes or service, driven by technology or intellectual property. The Bihar Start-Up Policy has been designed to rest on four pillars, YUVA — Y standing for 'yes to start-ups' through awareness, networking and mentoring campaign, U standing for 'unleashing regulatory enablers'

for supporting start-ups, V standing for ‘vibrancy in education system’ to encourage and facilitate start-ups and, finally, a standing for ‘access to financing and incubation support’. Under this Start-Up Policy, the state government will establish a Trust with an initial corpus fund of Rs. 500 crore which shall act as the nodal agency for the implementation of the policy.

Besides framing the Industrial Policy and a Start-Up Policy, the state government has also enacted a comprehensive Act to support the above policies. Among others, the Bihar Industrial Promotion Act, 2016 has clear provisions for State Investment Provision Board, Integrated Clearance System, Financial Incentives, Self-certification and mechanism for redressal of grievances. The state government has also finalised the rules for the above Act.

#### 4.7 Mining and Quarrying

Geologically, Bihar is located in the Gangetic plains and, as such, the mining and quarrying sector in the state is very small. As mentioned in Chapter I, the Gross State Domestic Product (GSDP) of this sector was only Rs. 685 crore in 2015-16 at current prices, just 1.7 percent of total GSDP of the state. However, thanks to the presence of some minor minerals, the state government receives modest amount of revenues from the sector, as indicated in Table 4.23. During 2015-16, the revenues was Rs. 971.00 crore, an increase of 13.0 percent over previous year’s revenue of Rs. 859.35 crore.

**Table 4.23 : Revenues from Minerals in Bihar**

(Rs. lakh)

Sources	2013-14	2014-15	2015-16
1. Major Minerals	128.17	107.31	99.06
2. Minor Minerals			
(i) bricks	3299.47	2659.09	4295.60
(ii) sand	22666.27	50542.07	42806.32
(iii) stone + crusher	1881.27	7516.90	11097.89
(iv) morum	21.41	0.45	56.38
(v) soil	736.46	270.28	271.37
(vi) Works Deptt.	26709.12	24074.52	36413.51
(vii) Transit Pass	41.10	42.35	40.74
(viii) Others	207.76	278.68	626.23
3. Arrears	1222.85	443.32	1392.90
<b>Total</b>	<b>56913.88</b>	<b>85934.97</b>	<b>97100.00</b>

Source : Department of Mines and Geology, GOB

#### 4.8 Tourism

The potential for tourism in Bihar is very substantial because of its rich historical heritage. A number of historical, archeological and religious sites in Bihar attract equally both domestic and foreign tourists. The Department of Tourism of the state government has identified the following 8 tourism circuits in Bihar — Buddhist Circuit, Jain Circuit, Ramayana Circuit, Shiv Shakti Circuit, Sufi Circuit, Sikh Circuit, Gandhi Circuit and Nature/ Wildlife Circuit. Under the new Industrial Investment Promotion Policy, 2016 of the state, tourism has been identified as one of the 10 priority sectors. The expenditure level of the Department of Tourism during the last five years is presented in Table 4.24.

**Table 4.24 : Expenditure of Department of Tourism**

Year	Budget Estimate (Rs. crore)	Expenditure (Rs. crore)	Expenditure as percentage of Budget
2011-12	34.45	34.85	101.2
2012-13	41.81	103.69	248.0
2013-14	105.85	67.37	63.6
2014-15	152.41	84.00	55.1
2015-16	57.01	61.57	108.0

Source : Budget Documents, GOB

The state government is making all endeavours to provide necessary information, basic facilities and security to all tourists. Table 4.25 presents the data on number of tourists in Bihar during the last five years, both domestic and foreign. In 2015, there were 28.95 lakh tourists in Bihar, of which 923 thousand were foreign tourists. Although the number of foreign tourists visiting Bihar has remained nearly same over the years, the trend for domestic tourists is very positive. Between 2011 and 2015, the number of domestic tourists has increased by more than 50 percent.

**Table 4.25 : Tourist Arrivals in Bihar**

Year	Number of tourists ('000)		
	Domestic	Foreign	Total
2011	18396	972	19368
2012	21446	1097	22543
2013	21588	765	22353
2014	22544	829	23373
2015	28029	923	28952

Source : Department of Tourism, GOB

## APPENDIX

**Table A 4.1 : Value of output and Net value added of selected agro and non-agro based industries (2013-14) (Bihar and India)**

(Rs. crore)

NIC 2008	Industrial Group	Value of Output			Net Value Added		
		India	Bihar	Bihar's Percentage Share	India	Bihar	Bihar's Percentage Share
Agro-Based							
10+11+12	Food Products/Beverages/ Tobacco Products	869448	10072	1.16	83848	2061	2.46
13+14	Textiles/Wearing Apparel	497552	173	0.03	68423	33	0.05
15	Leather & Leather Products	47640	71	0.15	7637	11	0.15
16+31	Wood & Wood Products / Furniture	36524	135	0.37	4818	22	0.46
17+18+58	Paper & Paper Products/ printing and Reproduction of Recorded Media/Publishing Activities	121707	789	0.65	19375	160	0.83
	Sub Total	1572871	11240	0.71	184102	2287	1.24
Non- Agro Based							
19	Coke and Refined Petroleum Products	1114471	37146	3.33	102171	2165	2.12
20	Chemicals and Chemical products	513903	386	0.08	79315	22	0.03
21	Basic Pharmaceutical Products	214564	125	0.06	65192	21	0.03
22	Rubber and Plastic Products	215512	247	0.11	36769	26	0.07
23	Non-Metallic Mineral Products	193028	1259	0.65	39377	411	1.04
24+25	Metals/ Fabricated Metal Products Except Machinery and Equipment	1030382	2578	0.25	146064	44	0.03
27+28+33	Electrical Equipment/ Machinery and Equipment NEC/Repair and Installation of machinery equipment	470645	341	0.07	86432	42	0.05
29+30	Motor vehicle, Trailer, Semi- Trailer/ Other Transport Equipment	532807	55	0.01	67746	18	0.03
	Others ( including 32 other manufacturing)	301517	1921	0.64	56938	120	0.21
	Sub-Total	4586830	44056	0.96	680006	2868	0.42
	Grand Total	6159700	55296	0.90	864108	5155	0.60

Source : Annual Survey of Industries, 2013-14

**Table A 4.2 : Structure of Industries in Bihar (2013-14)**

NIC 2008	Industrial Group	No. of factories		Factories in operation		Fixed Capital (Rs.Crore)		Persons Engaged (No.)	
				(No.)					
		India	Bihar	India	Bihar	India	Bihar	India	Bihar
	Agro based								
10+11+12	Food Products/ Beverages/ Tobacco Products	40743	862 (2.1)	34518	760 (2.2)	173951	3211 (1.8)	2185976	24203 (1.1)
13+14	Textiles/Wearing Apparel	28170	25 (0.1)	20426	24 (0.1)	218802	31 (0.0)	2474903	3604 (0.1)
15	Leather & Leather Products	4225	8 (0.2)	3330	8 (0.2)	8631	11 (0.1)	311594	681 (0.2)
16+31	Wood & Wood Products / Furniture	5725	214 (3.7)	4926	210 (4.3)	7790	36 (0.5)	139349	2207 (1.6)
17+18+58	Paper & Paper Products/ printing and Reproduction of Recorded Media/Publishing Activities	11614	80 (0.7)	9569	74 (0.8)	63540	224 (0.4)	429760	3479 (0.8)
	Sub Total	90477	1189 (1.3)	72769	1076 (1.5)	472715	3514 (0.7)	5541582	34174 (0.6)
	Non-agro based								
19	Coke and Refined Petroleum Products	1578	70 (4.4)	1327	70 (5.3)	193132	2781 (1.4)	109964	2335 (2.1)
20	Chemicals and Chemical products	11465	45 (0.4)	9710	43 (0.4)	159425	55 (0.0)	708401	1423 (0.2)
21	Basic Pharmaceutical Products	4961	29 (0.6)	4315	28 (0.6)	83160	58 (0.1)	618493	898 (0.1)
22	Rubber and Plastic Products	13147	60 (0.5)	10447	60 (0.6)	71658	68 (0.1)	591001	702 (0.1)
23	Non-Metallic Mineral Products	25597	1552 (6.1)	22089	1404 (6.4)	146660	444 (0.3)	970367	63309 (6.5)
24+25	Metals/ Fabricated Metal Products Except Machinery and Equipment	28431	156 (0.5)	23417	153 (0.7)	593334	222 (0.0)	1655102	3183 (0.2)
27+28+33	Electrical Equipment/ Machinery and Equipment NEC/Repair and Installation of machinery equipment	19836	63 (0.3)	16922	61 (0.4)	114471	427 (0.4)	1196048	1794 (0.1)
29+30	Motor vehicle, Trailer, Semi- Trailer/ Other Transport Equipment	7895	9 (0.1)	6833	8 (0.1)	181457	7 (0.0)	1076383	737 (0.1)
	Others (including 32 other manufacturing)	14906	247 (1.7)	12080	229 (1.9)	312451	460 (0.1)	726945	5042 (0.7)
	Sub-Total	127816	2231 (1.7)	107140	2056 (1.9)	1855747	4523 (0.2)	7652704	79423 (1.0)
	Grand Total	218293	3420 (1.6)	179909	3132 (1.7)	2328461	8037 (0.3)	13194286	113597 (0.9)

Note : In Table A 4.1 & A 4.2 (Appendix) the total may not match All India total as the total here relates to those NIC codes which are present in Bihar.

Figures in parenthesis represent Bihar's share to India.

Source : Annual Survey of Industries

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## CHAPTER V

### INFRASTRUCTURE

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The infrastructure is the lifeline of any economy. A developed economy is developed because it has adequate infrastructure, so that all the economic activities are executed efficiently, smoothly and in time. On the other hand, all disadvantaged economies suffer from poor infrastructure and they constantly plan to expand their infrastructure to put the economies on a high growth path. In the recent years, the physical infrastructure in Bihar has been strengthened considerably. Apart from stepping up public investment in infrastructure, the state government has been actively engaged in involving private sector to meet the growing demand for physical infrastructure. The all pervading importance of infrastructure would be clear from the fact that it encompasses the whole spectrum of vital services such as roads and bridges, railways, airways, telecommunications, postal facilities and efficient irrigation facilities. Two other very important sectors under infrastructure, Energy Sector and Urban Development, have been discussed in separate chapters.

#### **5.1 Roads**

The road transport plays a decisive role in the economic development. Because of its flexibility of operations, it is the only means of transport available to a majority of the rural people in Bihar. Through road transport, one can also hope to render any service at the doorstep of the households. Further, millions of people move out of their houses daily to reach their places of work, trade or business through the road network. Road construction and its maintenance also generate sizeable employment. Therefore, state government has decided to expand the road network in the state so expansively, that the capital city of Patna can be reached in less than five hours from any place in the state. To achieve this goal, the network of roads and bridges has been expanded considerably in recent years. Indeed, development of the infrastructure sector has been a priority area for the state government and it has enhanced public investment in roads and bridges. Many reforms have been initiated in the infrastructure sector, resulting in robust growth in most sectors through the linkage effect.

Table 5.1 shows the trend of public investment on road and bridges in Bihar during the last decade. The state government had spent more than 5 percent of its total budget on road and bridges in the last three years. Investment in the road sector has increased three fold from Rs 2696 in 2007-08 to Rs 7696 in 2016-17, indicating an annual growth rate of more than 10 percent. In 2015-16, the expenditure on roads constituted 16.4 percent of the expenditure of the



state government on economic sectors, 7.7 percent of development expenditure, and 1.5 percent of the GSDP of the state. The public investment in the road network is seen to decrease as percentage to total public expenditure over the years. This is because the road network had expanded so widely across the state in the initial years that, it spent rather limited amount in later years.

**Table 5.1 : Public Investment in Road and Bridges in Bihar**

(in Rs. crore)

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 BE	CAGR
Total Expenditure on Road and Bridges										
2696	2950	3740	4691	4842	4114	5458	5167	6112	7696	10.5
Revenue Expenditure on Road and Bridges										
404	491	689	632	786	823	1375	991	1709	2045	18.1
Capital Expenditure on Road and Bridges										
2292	2459	3051	4058	4056	3291	4083	4177	4403	5651	8.6
Expenditure on Economic Services										
9520	11316	13023	15564	17475	20246	24871	29173	37305	49828	19.1
Development Expenditure										
20410	24414	27606	32122	37619	45402	54456	64308	79605	103858	19.2
Total Budget										
31571	37181	42795	50705	60182	69207	80405	94698	112328	144696	17.7
GSDP										
113680	142279	162923	203555	247144	282368	317101	373920	413503	471391	17.0
<b>Public Investment in Road and Bridges as percentage of:</b>										
Economic Services										
28.3	26.1	28.7	30.1	27.7	20.3	21.9	17.7	16.4	15.4	-
Development Expenditure										
13.2	12.1	13.5	14.6	12.9	9.1	10.0	8.0	7.7	7.4	-
Total Budget										
8.5	7.9	8.7	9.3	8.0	5.9	6.8	5.5	5.4	5.3	-
GSDP										
2.4	2.1	2.3	2.3	2.0	1.5	1.7	1.4	1.5	1.6	-

Source : State Budget Documents, Government of Bihar

The public investment in road and bridges has increased substantially in the last decade, but the state still continues to remain far behind other states in terms of road length per lakh of population. As on end March 2014, Bihar reported only 201.5 kms of road length per lakh of population, as against 371.9 kms for all-India (Table 5.2). All major states are much ahead of Bihar in terms of total road length per lakh of population, except Uttar Pradesh, Jharkhand and

Haryana. In terms of National Highways (NH), its density in Bihar is the third lowest (after Uttar Pradesh and West Bengal) with only 4.3 kms road length per lakh of population. The national average is as high as 7.5 kms per lakh of population. With a length of 4.2 kms of State Highway (SH) per lakh of population, Bihar is ahead of only Uttar Pradesh (3.8 kms per lakh of population). The national average is 14.1 kms per lakh of population, with Maharashtra reporting the highest figures of 35.2 kms per lakh of population. One can also observe from Table 5.2 that the endowment of other types of roads is also limited in Bihar, compared to most other states.

**Table 5.2 : Road Network and Road Density in Major States of India (As on March, 2014)**

State	Road Network (km)				Road Density (km per lakh of population)			
	NH	SH	Other	Total	NH	SH	Other	Total
Andhra Pradesh	6590	6480	165026	178096	7.8	7.7	195.1	210.6
<b>Bihar</b>	<b>4467</b>	<b>4389</b>	<b>200902</b>	<b>209758</b>	<b>4.3</b>	<b>4.2</b>	<b>193.0</b>	<b>201.5</b>
Chhattisgarh	3031	5080	86469	94580	11.9	19.9	338.5	370.2
Gujarat	4694	18017	156352	179063	7.8	29.8	258.7	296.3
Haryana	2050	2098	38537	42685	8.1	8.3	152.0	168.4
Jharkhand	2968	1596	36694	41258	9.0	4.8	111.2	125.1
Karnataka	6177	20774	286233	313184	10.1	34.0	468.5	512.6
Kerala	1700	4341	187419	193460	5.1	13.0	561.0	579.1
Madhya Pradesh	5116	10934	263946	279996	7.0	15.1	363.4	385.5
Maharashtra	6249	39588	562853	608690	5.6	35.2	500.9	541.7
Odisha	4550	5125	273490	283165	10.8	12.2	651.6	674.6
Punjab	1699	1315	101146	104160	6.1	4.7	364.6	375.4
Rajasthan	7646	11292	222305	241243	11.2	16.5	324.3	351.9
Tamil Nadu	4975	11594	237636	254205	6.9	16.1	329.4	352.3
Uttar Pradesh	7986	7544	381694	397224	4.0	3.8	191.0	198.8
West Bengal	2908	3893	306949	313750	3.2	4.3	336.3	343.7
<b>All-India</b>	<b>91287</b>	<b>170818</b>	<b>4240381</b>	<b>4502486</b>	<b>7.5</b>	<b>14.1</b>	<b>350.3</b>	<b>371.9</b>

Source: Basic Road Statistics of India, 2013-14 and 2014-15, GoI

Table 5.3 shows the progress of National Highways (NH), State Highways (SH) and Major District Roads (MDR) during 2001-2016 in Bihar. The total length of NH has increased substantially from 3410 kms (2001) to 4621 kms (2016). As may be observed, the highest increase in the length of NH by 887 kms has happened between 2010 and 2016. The length of SH has also increased from 2383 kms (2001) to 4253 kms (2016), with the highest increase of 1610 kms between 2005 and 2010. During 2001 to 2016, MDR has also increased significantly from 7739 kms to 11,054 kms, with the highest increase between 2010 and 2016. Out of total road length, MDR (55.5 percent) constitutes more than half of the road length in Bihar, followed by NH (23.2 percent) and SH (21.3 percent).

**Table 5.3 : Length of Roads in Bihar (kms)**

Type of Road	2001	2005	2010	2016 (up to September)	Share in total road
National Highway (NH)	3410	3629	3734	4621	23.2
State Highway (SH)	2383	2177	3787	4253	21.3
Major District Road (MDR)	7739	8891	8965	11054	55.5

Source: Departments of Road Construction, GOB

The district-wise status of road network in Bihar for the year of 2001, 2005, 2010 and 2016 is given in Table A 5.1 (Appendix), which highlights the inter-district variation in three types of roads — NH, SH and MDR. In terms of total road length (NH, SH and MDR), Patna accounted for 5.8 percent of the total road network, followed by Gaya (4.9 percent), Supaul (4.3 percent), Nalanda (4.1 percent) and Muzaffarpur (4.0 percent). The districts of Sheohar (0.7 percent), Munger (0.8 percent) and Lakhisarai (0.9 percent) were the poorer regions of the state in terms of road network. During 2001 to 2016, NH has increased by 1211 kms, with the highest increase in Jamui (197 kms); SH increased by 1871 kms, with the highest increase in Saran (198 kms); and MDR increased by 3315 kms, with the highest increase in Gaya (317 kms).

As per Ministry of Road Transport and Highways of the central government, there are four categories of roads according to width — single lane (3.75 m.), intermediate lane (5.50 m.), double lane (7.00 m.) and multiple lanes (more than 7.00 m.). Though the highest proportion of National Highways (71.7 percent) and State Highways (68.4 percent) belong to the category of double or multiple lanes, more than half (53.7 percent) of Major District Roads were single lane (Table 5.4). It is heartening to note that the shares of double and multiple lane roads in Bihar are increasing over the years.

**Table 5.4 : Status of Road Network in Bihar (as on September, 2016)**

Category of Road	National Highways		State Highways		Major District Roads	
	Length (kms)	Percentage share	Length (kms)	Percentage share	Length (kms)	Percentage share
Single Lane (3.75m width)	618	13.4	772	18.2	5933	53.7
Intermediate Lane (5.50m width)	656	14.2	575	13.5	3372	30.5
Double Lane (7.0m width)	1899	41.1	2882	67.8	1562	14.1
Multiple Lane (More than 7.00m width)	1414	30.6	24	0.6	187	1.7
Missing Link	34	0.7	-	-	-	-
<b>Total</b>	<b>4621</b>	<b>100.0</b>	<b>4253</b>	<b>100.0</b>	<b>11054</b>	<b>100.0</b>

Source : Department of Road Construction, GOB

## National Highways (NH)

For inter-state road transportation, the National Highways is an extremely important mode of transportation for goods and passengers, promoting the growth of the economy. A total of 40 NHs, measuring 4621 kms were there in Bihar till September, 2016, as compared to 35 NHs (4321 kms) in 2014. With the addition of 5 more NHs during these two years, the total length of NH has become 4621 kms. A major share (72.4 percent) of the NHs is of double and multiple lane roads and the rest (27.6 percent) is single or intermediate lane roads.

The central government takes care of building, maintenance and financing of NH in the country. Table 5.5 shows the expenditure for NH (development and maintenance) in Bihar and all-India during 2010-11 and 2014-15. The share of NH is not only less in Bihar, it has also decreased from 5.13 percent (2010-11) to 4.78 percent (2014-15). In the same direction, expenditure on development of roads has also been reduced in Bihar. However, expenditure on maintenance of the NH increased substantially from 2.50 percent in 2010-11 to 8.08 percent in 2014-15. For total expenditure (development and maintenance), Bihar is only getting 1.63 percent, although Bihar accounts for 8.6 percent of country's population. This shows the comparatively low investment of the central government for NH in Bihar.

**Table 5.5 : Road Length and Expenditure on Development and Maintenance of National Highways**

	NH (in kms)		Expenditure on NH Development (Rs. crore)		Expenditure on NH Maintenance (Rs. crore)		Total Expenditure on NH (Rs. crore)	
	2010-11	2014-15	2010-11	2014-15	2010-11	2014-15	2010-11	2014-15
Bihar	3642	4679	199	277	37	201	236	478
India	70934	97958	16869	26838	1488	2490	18357	29328
Bihar share in India	5.13	4.78	1.18	1.03	2.50	8.08	1.29	1.63

Source : Ministry of Road Transport & Highways, GoI

In 2015, the concerned ministry of the central government, has notified the conversion of 2 roads into NH : NH 333B (Munger on NH 33 to Khagaria on NH 31) and NH 133B (Sahebganj on NH 33 to Manihar on NH 131A) into double or multiple lanes. During the last year, these planned upgradations have been done. Table 5.6 shows the status of different NH upgradation in to multiple lanes and their length.

**Table 5.6 : Status of Upgradation of NH into Four / Six-Lanning in Bihar**

Phase	Project	Length (kms)	Remarks
I	Golden Quadrilateral	206	206 km Completed
II	East-West Corridor	487	473 km Completed
III	NHD Project	1015	452 km Completed
IV	NHD Project	527	116 km Completed
V	NHD Project Bordering UP/ Jharkhand	206	51 km Completed
VI	NHD Project	65	
	<b>Total</b>	<b>2506</b>	

NHD = National Highway Development

Source : National Highways Authority of India, Regional Office, Patna

### State Highways (SH)

The State Highways (SH) connect the different districts in the state through roads. They traverse the length and breadth of the state, connecting the state capital, district headquarters and important towns and cities and link up with the NH and adjacent SH. As shown in Table 5.4, the total length of the SH in Bihar till September 2016 was 4253 kms. Around 67.8 percent of SH was double-lane roads, 13.5 percent intermediate lane roads, and 18.2 percent single lane roads. The multiple-lane roads constituted only 0.6 percent of the SH.

**Table 5.7 : Progress of Work under Conversion of State Highways**

Agencies	No. of districts	Total Approved Length (kms.)	No. of Packages	Revised Approved Fund (Rs. crore)	Released Fund (Rs. crore)	Physical Progress
CPWD	33	1760	35	2727.80	2716.95	Completed
IRCON	5	354	17	888.79	880.03	Completed
<b>Total</b>	<b>38</b>	<b>2114</b>	<b>52</b>	<b>3616.59</b>	<b>3596.98</b>	

Note : CPWD = Central Public Works Department

IRCON = Indian Railway Construction Company Ltd.

Source : Department of Road Construction, GOB

A total of 4253 kms of SH has been developed as double lane standard, under the ambitious programme of State Highways Development Programme (SHDP) of the state government. Under an agreement between the state and central government, this programme is being implemented by two agencies — Central Public Works Department (CPWD) and M/s IRCON International. The CPWD has completed 1760 kms of roads at a cost of Rs. 2717 crore for 35 projects in 33

districts. In the remaining 5 districts, IRCON has completed 354 kms of roads at a cost of Rs. 880 crore for 17 projects (Table 5.7).

The railway has completed construction of rail-cum-road over bridge on the Ganga river between Digha and Sonapur, near Patna costing Rs. 2921 crore. For this construction, the state share of Rs. 1240 crore was paid under Backward Region Grant Fund (BRGF). An elevated/semi-elevated road corridor project is being constructed from AIIMS in Patna (NH-98) to Dighaghat (11.90 kms) at a total cost of Rs. 1289.25 crore. This project is scheduled to be completed by August 2017.

Under the ambitious Bihar State Highways Project (BSHP), sponsored by the Asian Development Bank (ADB), the state government had decided to upgrade 1880 kms of existing roads as the SH. The ADB has granted its approval to upgrade these roads into two-lane standard. Under BSHP-I, the work for upgradation of 9 roads, measuring 825 kms, had started in 2008-09 at a total cost of Rs. 2629.85 crore and has been completed in March 2016. Under BSHP-II, upgradation work of 5 SHs, having a total length of 374 kms, is being carried out at a cost of Rs. 2547.01 crore, by making them two-lane roads. The loan component of ADB is fixed at 70.75 percent and the state share is 29.25 percent. Under additional financing for BSHP-II, ADB has granted a loan for upgradation of 4 more SHs by upgrading them to two-lane standard, as shown in Table 5.8.

**Table 5.8 : Status of Work under Additional Financing (As on 30.09.2016)**

SH No.	Name of SH	Approved Length (kms.)	Administrative Approval (Rs. crore)	Financial Progress
83	Bagi- Barbigha	37.6	170.32	100.0
86	Saraiya- Motipur	28.2	210.88	64.09
87	Runnisaipur-Nanpur-Pupri Sursand-Bhiswa	67.8	443.02	36.65
88	NH-103 Baruna Pul- Rasiyari	120.9	834.47	33.45
<b>Total</b>		<b>254.5</b>	<b>1658.69</b>	<b>-</b>

Source : Bihar State Road Development Corporation Limited, GOB

Under Public Private Partnership (PPP), the construction of a Greenfield Bridge across the river Ganges, connecting Bakhtiyarpur Bypass of NH-31 and Tajpur on NH-28 was planned at a total cost of Rs 1602.74 crore. This construction involves the bridge (5.5 kms.) and approach roads (45.75 kms.). Till date, 35.6 percent of the work has been completed.

The Ganga Pathway of 21.5 kms (Digha to Didarganj at Patna), including 7.6 kms of elevated corridor having four lanes with divided carriageway, is being constructed and it is expected to be completed by September 2017. The total cost of this project is Rs. 3160 crore, for which the

Housing and Urban Development Corporation (HUDCo) has paid Rs. 2000 crore. For four laning of 92.93 kms. of NH-82 (Gaya-Hisua-Nalanda-Biharsarif), the decision has already been taken by the concerned ministry of the central government and the estimated project cost is Rs. 1409 crore.

#### Major District Roads (MDR)

Major District Roads (MDR) navigate the length and breadth of a district, mainly to connect the villages to the urban centres. There was 11,054 kms of MDR in the state as on September, 2016, with a major portion (54 percent) of it being single-lane roads. This width is, however, quite inadequate for the present transport density in the state. Out of the total length of MDR, 5121 kms have been converted into intermediate or double lane roads (Table 5.4). Those roads which are yet to be converted into wider roads, have undergone surface renewal or repair work. In future, they will be converted into intermediate or double lane roads.

The various works on MDR are being financed through State-Plan, RIDF (Rural Infrastructure Development Fund) of NABARD, Central Road Fund, Left Wing Extremism-Affected Area Fund, Indo-Nepal Border Road Development Programme, Roads of Economic Importance Programme, and Roads of International Importance Programme. In addition to the running schemes, an amount of Rs. 1751.73 crore has been approved for upgradation of 832.30 kms for MDR and SH during 2016-17 under State Plan.

#### Development of Roads in Left Wing Extremism-affected Area Scheme

A total of 41 projects in 5 extremism affected districts (Arwal, Aurangabad, Gaya, Jamui and Jehanabad) has been approved for building or upgradation of 647.3 kms. of roads — 71.8 kms of NH, 68.1 kms of SH and 534.4 kms of MDR. Till September 2016, a total 39 projects have been completed which include 659.1 kms. of roads (65.8 kms of NH, 62.7 kms of SH and 530.7 kms of MDR) at a cost of Rs. 533.50 crore. In addition to this, 60 more projects under Road Requirement Plan-II (RRP-II) in 5 districts (Aurangabad, Gaya, Jamui, Banka and Muzaffarpur) have been submitted to the Home Ministry of the central government in June, 2016, for which approval is awaited. The coverage of these proposed projects is 1052.3 kms. for SH and MDR. The estimated cost is Rs. 2869 crore.

#### Indo Nepal Border Road Project

Since Bihar shares the international boarder with Nepal, SHs with two lanes are being constructed in the border areas to enable proper communication for local people and patrolling of the porous border by Border Security Force (BSF). As the proposed roads pass through a vast area of agricultural zone, these roads will also benefit the rural economy, improving its connectivity to nearest urban centres.

### State Plan Schemes

The SH and MDR are developed and maintained under State Plan scheme. The state government has adopted a comprehensive policy of Road Assets Maintenance Contract System, which will be performance-based and for a longer period of five years. A total of 1021 kms of MDR and 470 kms of SH have been upgraded and strengthened in 2015-16. In 2016-17, an amount of Rs 1000 crore was allotted for major road sector and Rs 565 crore was allotted under Schedule Caste component under the State Plan.

### Rural Roads

The majority of the people of Bihar reside in the rural areas and are highly dependent on the rural roads for day-to-day activities. The rural roads connect villages to one-another and to the nearest road of higher category (MDR, SH and NH). The network of rural roads facilitates the rural economic activities like local trade and business, and enables farmers to take their agricultural produce to more profitable markets nearby. It also helps the surplus agricultural labourers in the farm sector to move to the nearest work station for gainful employment. Rural roads also facilitate easy access to the better education and health destinations. The state government has progressed very fast in this direction for connecting each and every unconnected village and tolas. '*Ghar tak Pakki Gali-Naliyaan*' has been included under seven commitments (Saat Nischaya) of the state government. Till September 2016, rural road network of 60,503 kms have been constructed with an expenditure of Rs 31,589 crore in Bihar. The four earlier schemes – (Mukhya Mantri Gram Sadak Yojna, Apki Sarkar Apke Dwar Yojna, Special Component Programme for Schedule Caste Mahadalit Yojana and Border Area Development Programme) have all now been discontinued as the objectives of these schemes have already been achieved. These four schemes together covered 17.7 percent of the total expenditure and 21.2 percent of road construction till September 2016. The Pradhan Mantri Gram Sadak Yojana (PMGSY) alone had provided 63.8 percent finances for the rural roads.

**Table 5.9 : Programme-wise Length of Rural Roads Constructed (As on September, 2016)**

Name of the Scheme	Road Constructed (km)	Bridge Constructed (No)	Expenditure (Rs. crore)
R.I.D.F Scheme (NABARD)	2680	119	2258
World Bank (Kosi)	197	-	175
Pradhan Mantri Gram Sadak Yojana	39939	118	20166
Mukhya Mantri Gram Sampark Yojana	4873	-	3407
Other State Plan Schemes (Discontinued)	12815	39	5583
<b>Total</b>	<b>60503</b>	<b>276</b>	<b>31589</b>

Source : Department of Rural Works, GOB



Under RIDF (XIV to XXI), a total of 253 projects were taken up for road construction, out of which 102 have already been completed. The total cost of these projects is Rs. 7653 crore. The details of these projects are presented in Table 5.10.

**Table 5.10 : Status of Road Projects under RIDF in Bihar**

RIDF	No. of Districts	No. of projects	Approved Amount (Rs. crore)	Financial Progress (in percent)	No. of projects completed
XIV	3	3	1219	66.7	2
XV	8	24	470	100.0	24
XVI	15	24	742	70.8	17
XVII	12	19	431	73.7	14
XVIII	16	86	1130	33.7	29
XIX	21	93	771	16.1	15
XX	5	3	1180	33.3	1
XXI	2	1	1711	-	-
<b>Total</b>	<b>-</b>	<b>253</b>	<b>7653</b>	<b>-</b>	<b>102</b>

Source : Bihar Rajya Pul Nirman Nigam Ltd. GOB

The state government is committed to the spread of rural roads upto all habitats having population between 100 to 249. In this direction, as mentioned before, Ghar Tak Pakki Gali-Naliyan (each house will be connected by paves and drains) has been taken under seven commitments of the state government. A total of 11 districts were identified for providing connectivity to all habitations having a population of 250 and above under an Integrated Action Plan (IAP) scheme in PMGSY. Other districts have provision for connectivity for habitations having a population of 500 and more. Later, Mukhya Mantri Gram Sampark Yojana was started in 2013-14 for covering 27 districts which were not covered under IAP. Under this scheme, 4873 kms of rural roads have been constructed at an expenditure of Rs. 3407 crore.

There are even now eligible habitations and tolas that have been left uncovered in both the programmes mentioned above. Most of these tolas/ habitats belong to the economically and socially deprived section of the society. Under a new initiative, based on the satellite map, the state government has decided to provide all weather road connectivity to all identified satellite tolas having population between 100 to 249. On the basis of this, Gramin Tola Sampark Nischay Yojana has been launched in October, 2016. A total of 4643 habitations with population between 100 to 249 will be provided all weather connectivity within five years (2016-21). This covers

around 3977 kms road with a cost of Rs. 2741 crore. A total of 1153 habitats will provided connectivity by constructing 1000 kms road during 2016-17.

The state government has also developed an arrangement of Audio Recording and WhatsApp Messaging under Road Maintenance Public Grievance Redressal System, through which common people can register their complains and suggestions regarding roads.

## **5.2 Bridge Sector**

During the recent years, a number of bridges has been constructed all over the state for smoothing of road traffic. A total of 1068 bridges have been constructed during the last decade under Mukhyamantri Setu Nirman Yojna (MMSNY). In addition, 583 mega, major and minor bridges have been completed under other schemes. Under Rural Infrastructure Development Fund (RIDF) of NABARD, construction of mega bridges on Gandak river (Chakia-Kesaria-Sattar Ghat road in East Champaran) and again on Gandak river (Bangra Ghat between Muzaffarpur and Saran) are under construction. Other bridges under construction include — (i) a bridge between Gandaal in Saharsa to Hathi Kothi near Biraul in Darbhanga, (ii) a four-lane bridge over Sone river between Daudnagar (Aurangabad) and Nasriganj (Rohtas), (iii) a bridge over the river Ganges between Ara and Chhapra, and (iv) a high level bridge over the river Ganges between Aguni Ghat (Khagaria) and Sultanganj (Bhagalpur).

The mega bridges over river Sone (Arwal-Sahar), Gandak (Gopalganj-Bettia), Gandak (Dhanha-Ratwal in West Champaran) Kosi (Vijay Ghat of Nawgachia in Bhagalpur), 6 lane bridge over Falgu river (Gaya), flyover (Sheikhpura more to Jagdeopah in Patna), and extension work of Chiraiyatand overbridge to Gandhi Maidan in Patna have been completed. Under State Plan, a number of flyover bridges have been taken up in Patna, which include — (i) Mithapur overbridge to Chiriyantand flyover via Karbigahiya, (ii) Mithapur overbridge to Bhikhari Thakur (Yarpur) flyover, and (ii) Lohia Path Chakra between Lalit Bhawan and Vidyut Bhawan at Bailey Road. Under Additional Assistance from the central government, work for a flyover from Mithapur Road overbridge to Chiraiyatand overbridge in Patna is also in progress.

The Mukhyamantri Setu Nirman Yojana (MMSNY) of the state government envisages providing all weather connectivity to remote rural areas. Under this, the District Administration has been given autonomy for construction of bridges costing upto Rs 25 lakh, those costing more than Rs. 25 lakh being undertaken by Bihar Rajya Pul Nirman Nigam Ltd. A total of 95 bridges (at a cost of Rs 300 crore) have been completed during 2015-16 and another 30 bridges (at a cost of Rs 90

crore) have been completed during the first six months of 2016-17. The division-wise figures are given in Table 5.11.

**Table 5.11 : Bridge Constructed under Mukhyamantri Setu Nirman Yojana (2015-16)**

Division	No. of Projects	Cost (Rs. crore)	Division	No. of Projects	Cost (Rs. crore)
Patna	17	44.92	Munger	08	29.36
Bhagalpur	06	28.91	Purnea	14	45.11
Darbhanga	07	19.43	Saran	12	28.07
Kosi	08	28.22	Tirhut	18	57.67
Magadh	05	17.77	<b>Total</b>	<b>95</b>	<b>299.46</b>

Source : Bihar Rajya Pul Nirman Nigam Limited, GOB

For construction of Rail Over Bridge (ROB) on cost-sharing basis in the state, out of 33 railways crossing bridge, 25 have been completed and the works for the rest of 8 bridges are in progress. The ROB on SH-4 near Manpur station under State Plan is near completion. The Railway Board has also agreed for construction of rail overbridges on 43 railway crossings in the state on cost sharing basis. A total of 68 projects have been completed under Central Road Fund (CRF) out of 85 projects, 13 projects are in various stages of completion and the work for rest 4 is yet to start after their sanctions.

A six lane Mega Bridge (9.76 kms with approach road of 13.0 kms) on river Ganga has been sanctioned for construction, which will connect Dargah in Patna on NH-30 to Vidupur in Vaishali on NH-103. The estimated cost of the bridge is Rs. 4988 crore and it will be shared by a loan from ADB (Rs. 3000 crore) and the State Plan (Rs. 1988 crore). For this project, the process of land acquisition is in progress.

#### Bihar Rajya Pul Nirman Nigam Limited (BRPNNL)

The BRPNNL has the responsibility of building bridges in the state. The Corporation is displaying an efficient financial management and has shown steady increase in its gross and net profit over the years (Table 5.12). BRPNNL has been generating more than Rs 100 crore of gross profit every year. The total cost of projects undertaken by the corporation has increased from Rs 883 crore in 2011-12 to Rs 2839 crore in 2015-16.

**Table 5.12 : Overview of Bihar Rajya Pul Nirman Nigam Limited**

Year	No. of Bridges	Expenditure (Rs. crore)	Expenditure on Projects (Rs. crore)	Total Revenue (Rs. crore)	Administrative Expenditure (Rs. crore)	Gross Profit (Rs. crore)	Net Profit (Rs. crore)
2011-12	261	883	1294	176	50	(+) 126.0	(+) 84.2
2012-13	136	788	1273	142	35	(+) 107.0	(+) 63.8
2013-14	119	1152	1481	159	39	(+) 120.1	(+) 72.5
2014-15	179	730	1739	183	44	(+) 139.1	(+) 80.9
2015-16	176	2839	1699	151	43	(+) 107.7	(+) 70.3

Source : Bihar Rajya Pul Nirman Nigam Limited, GoB

### 5.3 Road Transport

Road transportation is often the most preferred mode of transportation, compared to rail, air and water transport for both freight and passengers. The number of motor vehicles in a state indicates the extent of road transport, which promotes the state's economic growth. The number of registered motor vehicles in Bihar has been increasing rapidly, at an annual rate of 15.4 percent during the last five years (2010-15) (Table 5.13). In this regard, Bihar was the second fastest growing state in India after West Bengal (24.2 percent). However, the state still continues to remain at the bottom among all the major states in terms of number of vehicles per thousand of population. Till 2015, Bihar reported only 45.9 vehicles per thousand of population, compared to 173.5 for all-India. With 312.7 vehicles per thousand of population, Haryana stays at the top.

**Table 5.13 : Total Registered Motor Vehicles in Major States of India**

States	No. of vehicles ('000)							No. of Vehicles / 1000 person
	2010	2011	2012	2013	2014	2015	CAGR (2010-15)	
Andhra Pradesh	8923	4461.5	5094.5	6212	7002	7882	11.5	93.2
<b>Bihar</b>	<b>2287</b>	<b>2673</b>	<b>3113</b>	<b>3610</b>	<b>4163</b>	<b>4778</b>	<b>15.4</b>	<b>45.9</b>
Chhattisgarh	2436	2766	3104	3437	3871	4314	12.0	168.9
Gujarat	11873	12993	14414	15772	17092	18721	9.5	309.7
Haryana	4792	5377	5978	6600	7239	7928	10.5	312.7
Jharkhand	2767	3113	3158	3417	1719	2066	-8.6	62.6
Karnataka	9044	9930	10910	12064	13335	14785	10.3	242.0
Kerala	5398	6072	6893	7858	8775	9648	12.6	288.8
Madhya Pradesh	6591	7356	8144	8760	9722	11141	10.6	153.4
Maharashtra	15768	17434	19432	21488	23394	25562	10.2	227.5
Odisha	2932	3338	3759	4216	4702	5219	12.2	124.3
Punjab	5274	5274	6263	6263	6263	6263	4.0	225.7
Rajasthan	7166	7986	8985	10072	11133	12379	11.6	180.6
Tamil Nadu	14062	15638	17412	19232	20864	22519	9.9	312.1
Uttar Pradesh	11988	13287	15445	17048	19115	21636	12.6	108.3
West Bengal	2747	3261	3861	6111	6745	7403	24.2	81.1
<b>All-India</b>	<b>127746</b>	<b>141866</b>	<b>159491</b>	<b>176044</b>	<b>190704</b>	<b>210023</b>	<b>10.4</b>	<b>173.5</b>

Source : Ministry of Road Transport and Highways, GoI.

The number of registered motor vehicles in the state has increased rapidly in recent years (Table 5.14). The total number of vehicle registered is more than 7.04 lakh in 2015-16, compared to 3.9 lakh in 2010-11, implying an annual growth of 12.6 percent. During the same period, the growth rate for number of vehicles was in double digit for Bus (17.2 percent), Auto Rickshaw (16.1), Two Wheeler (13.3 percent), Truck (13.2 percent) and Tractor (11.3 percent). The district-wise information on registration of vehicles is presented in Table A 5.2 (Appendix). In 2015-16, nearly one third of new vehicles were registered in only three districts — Patna (16.1 percent), Muzaffarpur (9.7 percent) and Gaya (5.1 percent). This information on registration of new vehicles can also be used as an indicator of relative economic prosperity of the different districts.

**Table 5.14 : Yearly Growth in Number of Registered Vehicles and Revenue Collection**

(No. in '000 and amount in Rs crore)

Vehicle Type	Number of Vehicles ('000)						<b>CAGR (2010-16)</b>
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	
Truck	7	10	10	11	13	14	<b>13.2</b>
Bus	1	1	2	2	2	2	<b>17.2</b>
Car	19	23	24	23	28	31	<b>8.9</b>
Taxi	5	9	14	12	7	6	<b>0.0</b>
Jeep	10	9	10	9	9	12	<b>2.3</b>
Auto	17	21	30	35	31	37	<b>16.1</b>
Two-Wheeler	293	331	362	420	477	549	<b>13.3</b>
Tractor	21	23	30	31	34	35	<b>11.3</b>
Trailer	11	11	11	8	12	18	<b>7.1</b>
Others	2	1	2	2	2	2	<b>6.1</b>
<b>Total</b>	<b>386</b>	<b>439</b>	<b>496</b>	<b>553</b>	<b>615</b>	<b>704</b>	<b>12.6</b>
Revenue Collection (Rs. crore)	444	558	669	835	967	1071	<b>19.6</b>

Source : Department of Transport, GOB

Table 5.14 also depicts the revenue collection of the Department of Transport, which has steadily increased over the years from Rs 444 crore (2010-11) to Rs 1071 crore (2015-16). It is heartening to note that government has fully exempted tax for differently able people and women holding commercial licenses (three wheelers, motor cab and maxi cab). The revenue collected through tax on vehicle accounts for around 5 percent to the state's own revenue.

The Department of Transport has adopted a number of measures to strengthen road transport in the state. Some of these measures are :

**Road Safety** : A Road Safety Policy has been adopted by the state government for minimizing road accidents and making road transport more safe. Subsequently, the Bihar Road Safety Action

Plan and Road Safety Fund have been notified. The State Road Safety Council and District Road Safety Committee have been made more active through strict monitoring.

System of e-payment of Vehicles Taxes : The state government has successfully introduced online e-payment system, using Multi Optional Payment System (MOPS). The payment of tax for any commercial vehicle can be deposited from anywhere anytime using this portal.

Upgradation of Vahan and Sarathi Softwar : The upgradation of Vahan and Sarathi software in Vahan Web – 4.0 in 12 districts is under process. This will bring more transparency in the working of the department and it will also ensure that registration of all vehicles in Bihar is also recorded in national e-register. In addition, the facility of registration of vehicle at the dealer point or showrooms has been provided to get rid of inconvenience caused to the buyers of vehicles.

Implementation of Right to Public Service Act : At present, 18 services of the Department of Transport have been included under RTS Act. A total 14.83 lakh applications were disposed out of 14.89 lakh applications received during 2015-16.

Driver Training cum Research Institute : A modern driving training-cum-research institute is in the final stage of completion in Aurangabad at a cost of Rs 23.25 crore. Through training and skilling, the Institute will enhance the employability for drivers and safety of road transportation. The state government is also planning to establish such Institutes in some more districts.

#### Bihar State Road Transport Corporation (BSRTC)

To strengthen the public transportation system in the state, Bihar State Road Transport Corporation was established. It is a statutory commercial body for providing safe, adequate and comfortable bus services to the people. In order to achieve its objectives and strengthen its financial status, currently 350 private buses are plying under PPP mode and 141 city buses are running in Patna, Gaya, Darbhanga and Chhapra under JnNURM scheme, in collaboration with Bihar State Urban Development Corporation (BUDCO). The number of passengers carried by its buses has increased substantially from 89.53 lakh in 2010-11 to 126.63 lakh in 2015-16, implying an annual growth rate of 3.24 percent (Table 5.15). The revenue collection has also been increasing over the years, growing annually at 13.35 percent. In 2015-16, the total revenue was Rs. 135 crore, compared to Rs. 64 crore in 2010-11.

**Table 5.15 : Revenue Collection and Number of Passengers Carried by BSRTC**

Particular	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	<b>CAGR (2010-16)</b>
Revenue Collection (Rs. crore)	64.06	94.17	114.97	125.69	114.11	134.80	<b>13.35</b>
No. of Passengers Carried (lakh)	89.53	137.67	146.61	152.26	110.64	126.63	<b>3.24</b>

Source : Bihar State Road Transport Corporation, GOB

The BSRTC has initiated work to provide modern facilities in the 39 major bus stands in the state. Bihar Urban Development Corporation (BUDCO) has prepared a major plan at a cost of Rs 160 crore for this purpose. In addition to this, 14 bus stands have been planned for renovation and beautification in those places which have substantial tourism potential.

#### 5.4 Railways

Indian Railways is one of the world's largest rail network, with 65,808 kms of route length. As a national common carrier for transporting passenger and freight over a vast network, Indian Railways has always played a key role in India's economic development. The spread of rail network in major states of India is shown in Table 5.16. The share of rail route in Bihar is 5.5 percent of all-India. The density of rail route in Bihar is 38.6 kms per 1000 sq. km of area, compared to the national average of 20.0 kms. However, in terms of rail route per lakh population, Bihar is the second lowest (3.5 kms.), after Kerala (3.1 kms.). A similar trend is also found for total rail track as shown in Table 5.16.

**Table 5.16 : Spread of Rail Route Network in Indian Major States (March, 2014)**

States	Total Rail Route (kms)	Total Rail Track (kms)	Total Rail Route		Total Rail Track	
			Per 1000 sq. km	Per lakh Population	Per 1000 sq. km	Per lakh Population
Andhra Pradesh	3593	7040	13.1	4.2	25.6	8.3
<b>Bihar</b>	<b>3639</b>	<b>6762</b>	<b>38.6</b>	<b>3.5</b>	<b>71.8</b>	<b>6.5</b>
Chhattisgarh	1197	2625	8.9	4.7	19.4	10.3
Gujarat	5259	7458	26.8	8.7	38.0	12.3
Haryana	1630	2996	36.9	6.4	67.8	11.8
Jharkhand	2182	5660	27.4	6.6	71.0	17.2
Karnataka	3281	4970	17.1	5.4	25.9	8.1
Kerala	1050	2013	27.0	3.1	51.8	6.0
Madhya Pradesh	4976	9190	16.1	6.9	29.8	12.7
Maharashtra	5725	10924	18.6	5.1	35.5	9.7
Odisha	2516	4886	16.2	6.0	31.4	11.6
Punjab	2269	3443	45.1	8.2	68.4	12.4
Rajasthan	5870	8392	17.2	8.6	24.5	12.2
Tamil Nadu	4027	6258	31.0	5.6	48.1	8.7
Uttar Pradesh	8920	15048	37.0	4.5	62.5	7.5
West Bengal	4070	10192	45.9	4.5	114.8	11.2
<b>India</b>	<b>65808</b>	<b>116765</b>	<b>20.0</b>	<b>5.4</b>	<b>35.5</b>	<b>9.6</b>

Source: Indian Railway Statistical Publication - 2013-2014, Government of India

## 5.5 Airways

Airways play a vital role in facilitating the growth of business and economy. A robust civil aviation set-up is a key for seamless flow of investment, trade and tourism, with significant multiplier effects on the growth of the overall economy. In Bihar, the number of aircraft movements has almost doubled from 9547 in 2010-11 to 18,744 in 2015-16 (Table 5.17). Similarly, the number of passengers has also nearly doubled from 8.39 lakh in 2010-11 to 15.99 lakh during 2015-16. The freight also increased from 3.28 thousand tonnes (2004-05) to 4.41 thousand tonnes (2015-16).

**Table 5.17 : Domestic Aircraft Movements, Number of Passengers and Freights at Patna Airport**

Year	No. of Aircraft Movements	Passengers (in lakh)	Freight (in '000 tonnes)
2010-11	9547	8.39	3.28
2011-12	10369	10.22	3.43
2012-13	9972	10.03	2.25
2013-14	9900	10.45	4.85
2014-15	11054	11.97	5.20
2015-16	18744	15.99	4.41
<b>CAGR (2010-16)</b>	<b>10.70</b>	<b>11.29</b>	<b>10.52</b>

Source: Airport Authority of India, Patna

## 5.6 Information and Communication Technology (ICT)

Technological progress is a driving force behind economic growth, citizen engagement, and job creation. In particular, the Information and Communication Technologies (ICTs) is now a powerful means for providing efficient services, catalyze economic growth, and strengthen social networks.

### Information Technology (IT)

This sector is one of the leading contributors to the growth the state economy. The state government is committed to the computerization and online facilities for various services including tax payments, right to information, online registration for new industries, etc. Bihar State Wide Area Network (BSWAN) covers all districts of the state, upto the block headquarters. In addition to that, a Secretariat Local Area Networks (Sec. LAN) is working for departmental and secretarial work of the state which enables timeliness, transparency and accountability of the departments. Under this, a total of 3300 data nodes were established in important government offices in and around the secretariat complex in Patna and all of them are functional. The Common Service Centre (CSC) facility has been established in all the 9 divisions of the state (Table 5.18). This is a core infrastructure for the national e-governance.



**Table 5.18 : Status of Common Service Centre Project**

Division	Total CSC Established	Division	Total CSC Established
Patna	1347	Munger	774
Bhagalpur	427	Magadh	883
Darbhanga	1110	Tirhut	1728
Kosi	504	Purnea	833
Saran	857	<b>Total</b>	<b>8463</b>

Source : Department of IT, GOB

The state government is working towards making Bihar a Information Technology (IT) Hub. Towards that objective, a decision has been taken to build an IT city at Rajgir (Nalanda) on 200 acres of land. An IT tower is being established in the state capital of Patna. The state government is enthusiastic in establishing the National Institute of Electronic and Information Technology (NIELIT) in the state and 15 acres of land have been provided in Bihta for this institution. Further, the opening of additional centres of NIELIT at Buxar and Muzaffarpur is also envisaged. For training of students belonging to the deprived sections of the society, efforts are being made by Centre for Development of Advanced Computing (C-DAC), in collaboration with Bihar Knowledge Society. A scheme to provide free wi-fi facilities to the universities and colleges of Bihar has been sanctioned which would cost Rs 220 crore, under Saat Nischay of the state government. This scheme will be implemented by Bihar State Electronic Development Corporation (BELTRON).

### Telecommunication

Telecommunication services are recognized as one of the driving forces for economic development. The central government has taken several initiatives to provide a business friendly environment for companies in this sector. However, all the states have not been benefitted equally, Bihar being one of the neglected states. However, Bihar has registered a tremendous growth in the telecom sector during the last decade. The number of telephone connections increased phenomenally from 9.7 lakh (2001) to 448 lakh (2010). Later, the number of telephone connection increased further from 448 lakh (2010) to 748 lakh (2016). Consequently, Bihar witnessed a substantial increase in its tele-density in the recent years, from 1.15 in 2001 to 54.3 in 2016. However, the rural tele-density of Bihar is still the lowest among all the major states of India. In case of urban areas, the situation is much better, only three states (Andhra Pradesh, Karnataka and Kerala) have a higher urban tele-density than that of Bihar. As regards overall tele-density, taking into account both rural and urban areas, Bihar is again at the lowest point with a figure of 54 telephones for each 100 persons. The national average is 83 connections, the highest being in Tamil Nadu (118 connections). One may also note here that, both in Bihar and

India, the increase in tele-density has been mainly because of increase in mobile phones. Secondly, majority of the investment in telecommunications has come from the private sector.

**Table 5.19 : Tele-density of Major Indian States**

State	2001	2005	2010	2015			2016		
	All	All	All	Rural	Urban	All	Rural	Urban	All
Andhra Pradesh	4.1	9.5	57.2	49.0	174.9	84.2	51.4	176.8	86.4
<b>Bihar</b>	<b>1.2</b>	<b>2.4</b>	<b>38.0</b>	<b>33.1</b>	<b>164.1</b>	<b>51.2</b>	<b>36.4</b>	<b>166.2</b>	<b>54.3</b>
Gujarat	5.4	12.7	58.5	61.9	143.0	95.6	67.4	145.4	100.1
Haryana	4.3	10.8	59.7	59.6	124.2	82.7	64.9	122.9	85.9
Karnataka	4.7	12.2	67.8	49.0	174.9	97.5	53.0	178.8	101.9
Kerala	7.5	18.8	80.4	67.2	179.1	95.6	62.2	220.3	102.3
Madhya Pradesh	1.8	5.2	45.2	36.9	123.2	60.4	41.5	124.3	64.2
Maharashtra	6.6	10.0	50.3	61.1	128.4	93.4	65.4	134.7	99.0
Odisha	1.5	4.0	39.3	44.5	172.1	66.9	49.6	159.8	69.1
Punjab	7.0	21.9	75.4	72.0	145.4	103.8	72.0	149.8	106.1
Rajasthan	2.6	6.1	52.8	53.6	153.9	77.8	58.2	162.0	83.3
Tamil Nadu	5.9	11.4	74.3	82.8	141.8	117.5	85.0	140.4	118.1
Uttar Pradesh	1.7	4.1	38.5	40.7	127.7	60.5	42.2	145.4	65.8
West Bengal	2.7	3.0	34.8	50.2	140.4	76.1	53.4	145.3	79.8
<b>All-India</b>	<b>3.5</b>	<b>9.0</b>	<b>52.7</b>	<b>48.4</b>	<b>149.7</b>	<b>79.4</b>	<b>51.4</b>	<b>154.0</b>	<b>83.4</b>

Source : Telecom Regulatory Authority of India (TRAI)

### Postal Communication

The postal communication system has been the main method of communication in India for more than a century. Indian Postal Services has the largest postal network in the world, with 1.55 lakh post offices, out of which 90 percent are located in rural and remote areas. The rural India has a total of 1.39 lakh post offices, as against only 0.16 lakh in urban areas.

As on March 2015, a total of 9067 post offices were in existence in Bihar, out of which 8594 (95 percent) were in rural areas and 473 (5 percent) in the urban areas. In terms of share in the all-India postal network, the share of Bihar at 6.2 percent of rural post offices is rather less, since Bihar accounts for 11.1 percent of country's rural population. There were five states (Uttar Pradesh, Andhra Pradesh, Tamil Nadu, Maharashtra and Rajasthan) which together accounted for 45 percent of the post offices. In terms of letter boxes, the top five states are Maharashtra, Andhra Pradesh, Tamil Nadu, Uttar Pradesh and West Bengal; they account for 47 percent of the letter boxes (Table 5.20).

**Table 5.20 : Spread of Postal Network in Major States of India (As on March 31, 2015)**

(In number)

States	Post Offices			Letter Box		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	14800 (91.6)	1355 (8.4)	16155 (10.4)	7854 (16.4)	39977 (83.6)	47831 (9.2)
<b>Bihar</b>	<b>8594 (94.8)</b>	<b>473 (5.2)</b>	<b>9067 (5.9)</b>	<b>3234 (12.3)</b>	<b>23112 (87.7)</b>	<b>26346 (5.1)</b>
Chhattisgarh	2879 (91.5)	268 (8.5)	3147 (2.0)	2715 (18.1)	12273 (81.9)	14988 (2.9)
Gujarat	8194 (91.2)	789 (8.8)	8983 (5.8)	4459 (18.0)	20382 (82.0)	24841 (4.8)
Haryana	2332 (87.1)	345 (12.9)	2677 (1.7)	1827 (21.6)	6613 (78.4)	8440 (1.6)
Jharkhand	2835 (91.5)	264 (8.5)	3099 (2.0)	1274 (9.7)	11901 (90.3)	13175 (2.5)
Karnataka	8613 (89.1)	1054 (10.9)	9667 (6.2)	12713 (42.9)	16935 (57.1)	29648 (5.7)
Kerala	4206 (83.0)	862 (17.0)	5068 (3.3)	3395 (21.8)	12204 (78.2)	15599 (3.0)
Madhya Pradesh	7488 (90.0)	835 (10.0)	8323 (5.4)	4196 (10.8)	34724 (89.2)	38920 (7.5)
Maharashtra	11564 (89.9)	1295 (10.1)	12859 (8.3)	8341 (18.7)	36195 (81.3)	44536 (8.6)
Odisha	7576 (92.7)	593 (7.3)	8169 (5.3)	2564 (12.6)	17736 (87.4)	20300 (3.9)
Punjab	3411 (88.5)	445 (11.5)	3856 (2.5)	2735 (18.4)	12153 (81.6)	14888 (2.9)
Rajasthan	9670 (93.6)	659 (6.4)	10329 (6.7)	4062 (14.4)	24102 (85.6)	28164 (5.4)
Tamil Nadu	10269 (84.7)	1861 (15.3)	12130 (7.8)	10983 (26.4)	30596 (73.6)	41579 (8.0)
Uttar Pradesh	15730 (89.1)	1925 (10.9)	17655 (11.4)	7957 (11.8)	59570 (88.2)	67527 (13.0)
West Bengal	7957 (87.7)	1111 (12.3)	9068 (5.9)	5920 (14.6)	34760 (85.4)	40680 (7.9)
<b>All States</b>	<b>139222 (89.9)</b>	<b>15717 (10.1)</b>	<b>154939 (100)</b>	<b>90732 (17.5)</b>	<b>427158 (82.5)</b>	<b>517890 (100)</b>

Note : Figure in parenthesis for rural and urban, represents share from total and state-wise from all-India

Source : Annual Report 2015-16, Department of Posts, India

Competing with the mobile and internet in the modern era, the communication through postal network is now facing a massive challenge. However, Postal Department has taken several measures to compete with.

**IT modernization Project** : The central government has taken up IT modernization project on a mission mode. The e-governance project aims to make the department totally technology driven. The specific components include — modernization and computerization of all Post Offices, deployment of Rural Information & Communication Technology (Rural ICT) solution in all the 1.29 lakh rural post offices by supplying computer hardware, solar charging devices and providing network connectivity to them. The IT infrastructure of the project will include Data Centre, Disaster Recovery Centre, and Wide Area Network (WAN) based networking of all post offices, mail offices, accounts offices and administrative offices. The project also envisages development of software applications, covering all operations of the Department — counter operations, mail processing, online tracking and tracing of the mail article, banking, insurance,

finance & accounts and human resources management functions. There will also be provision of multiple channels of user interaction, apart from the conventional post office counters. These include web portal, ATMs, call center, employee help desks, SMS gateway etc.

International Money Transfer Service : This service enables instant international money remittance to customers in India sent from around 195 countries on a real time basis in association with Western Union.

Instant Money Order (iMO) : iMO is an online domestic money transmission service which is instant, convenient, reliable and affordable. This service enables the customer to quickly transmit money from any of the post offices providing iMO service. Under this service, a person can send an amount from Rs 1000 upto Rs 50,000 in one transaction. Money will be disbursed to the payee at any of the designated iMO post office in India on presentation of a 16 digit iMO number and a photo identity proof.

E-Payment : It is a many-to-one solution which allows electronic collection of money (telephone bills, electricity bills, examination fee, taxes, university fee, school fee, etc.) on behalf of any organization and the payment is made centrally through a cheque from a specified post office of the biller's choice.

Mobile Money Transfer Service : This service is extremely useful for those persons who regularly remit money to their homes at faraway places and who have no access to bank accounts. The service enables instant money transfer from one place to another, using mobile through post offices. The consumer needs to have a mobile while the actual transmission of the money is initiated in to post office, using a special handset. This transfer process is very simple.

Electronic Indian Postal Order (e-IPO) : It enables to enable Indian citizens living abroad to pay the Right to Information (RTI) fee online through the e-Post Office portal. This facility has now been extended to citizens living in India.

Worldnet Express : It is an international express service, jointly offered by India Post and Deutsche Post DHL, connecting major cities of India to more than 220 countries and territories globally. It offers door to door International Air Express service for both documents and merchandises. This is a premium offering of India Post having a transit time of 2-4 days from major cities in India.

Rural Business : The Department of Posts has been entrusted with implementation of various government sponsored social security schemes, like Mahatama Gandhi National Rural Employment Guarantee Scheme (MGNREGS), National Social Assistance Programme (NSAP) and Indira Gandhi Matritva Sahyog Yojana (IGMSY). The central government also plans to leverage rural postal network for revenue generation by providing suitable services to third

parties which collect data for Rural Consumer Price Index (CPI) on behalf of Ministry of Statistics and Programme Implementation.

**Post Office Saving Bank :** The Post Office Savings Bank operates Savings Accounts, Recurring Deposit (RD), Time Deposit (TD), Monthly Income Scheme (MIS), Public Provident Fund (PPF), National Savings Certificate (NSC), Kisan Vikas Patras (KVP), Senior Citizens Savings Scheme (SCSS) and Sukanya Samridhi Accounts (SSA).

Table 5.21 shows the details of different types of accounts and their outstanding balance for major states of India. A total of 273 lakh accounts were in Bihar, which constituted 7 percent of all-India postal accounts. The savings accounts had an outstanding balances of Rs. 11,496 crore in Bihar, with a total outstanding balances of Rs 20,858 crore. The share of Bihar in all-India was — Deposits (6.0 percent), Investment (3.4 percent), Monthly Income Scheme (MIS) (3.7 percent) and Total (4.7 percent).

**Table 5.21 : Number of Accounts and Outstanding Balances in Post Offices**

(As on March 2015)

State	No. of Accounts (lakh)					Outstanding Balance (Rs. in crore)				
	Deposits	Investment	MIS	Sukanya/ Mahila Samridhi Account	MG- NREGA	Total	Deposits	Investment	MIS	Total
Andhra Pradesh	343	1	11	2	246	<b>603</b>	9125	1726	11084	<b>21935</b>
<b>Bihar</b>	<b>193</b>	<b>1</b>	<b>12</b>	<b>0</b>	<b>67</b>	<b>273</b>	<b>11496</b>	<b>1928</b>	<b>7434</b>	<b>20858</b>
Chhattisgarh	38	0	1	0	54	<b>94</b>	3275	668	1885	<b>5829</b>
Gujarat	140	3	21	1	23	<b>186</b>	11510	6437	17810	<b>35757</b>
Haryana	64	1	5	2	1	<b>72</b>	6605	2154	3627	<b>12385</b>
Jharkhand	77	0	4	1	39	<b>122</b>	2342	98	5305	<b>7745</b>
Karnataka	210	1	6	5	7	<b>229</b>	8932	2666	6705	<b>18303</b>
Kerala	115	0	5	1	3	<b>124</b>	8053	539	2626	<b>11218</b>
Madhya Pradesh	222	1	6	12	21	<b>262</b>	8365	1116	4314	<b>13796</b>
Maharashtra	313	5	22	0	35	<b>375</b>	12907	8177	29159	<b>50243</b>
Orissa	125	0	5	1	16	<b>147</b>	5152	363	3408	<b>8923</b>
Punjab	62	2	8	1	2	<b>75</b>	11195	5135	6721	<b>23050</b>
Rajasthan	152	2	8	1	37	<b>201</b>	9127	3731	6085	<b>18943</b>
Tamil Nadu	263	2	8	6	0	<b>279</b>	10961	3391	10743	<b>25095</b>
Uttar Pradesh	312	2	18	5	4	<b>341</b>	24659	4158	17371	<b>46188</b>
West Bengal	195	2	55	2	70	<b>324</b>	21811	3102	48235	<b>73148</b>
<b>Total</b>	<b>3063</b>	<b>27</b>	<b>211</b>	<b>43</b>	<b>649</b>	<b>3993</b>	<b>191124</b>	<b>56672</b>	<b>200555</b>	<b>448351</b>

Note : Deposits includes saving accounts, recurring deposits, term deposits and Senior citizen's deposits and Investment includes Public Provident Fund and National Saving Schemes

Source : Annual Report 2015-16, Department of Posts, India

## 5.7 Irrigation

Irrigation is a basic infrastructure for the agricultural economy, as it helps raising agricultural productivity. Bihar's agricultural economy depends mostly on monsoon rain which is quite uncertain. The state is endowed with abundant water resources and receives a high rainfall of about 1000 mms per annum. However, neither the rainfall nor the distribution of the water resources is uniform across the state, causing uneven exploitation of irrigation potential in the state. Therefore, Bihar needs artificial watering in the fields. The expansion of both the groundwater and surface water resources has helped to increase the irrigated area in the state. However, the proportion of irrigated area and the cropping intensity are much higher in several states of the country, compared to Bihar. The inadequate availability and inefficient utilization of water resources in Bihar can be ascribed mainly to the continued neglect of the operation and maintenance (O&M) of canals and water bodies in the past. The other important reason is the lack of participation of the beneficiary farmers in the management of irrigation resources. In recent years, Bihar has witnessed some noteworthy examples of participatory management of irrigation; however, their replication throughout the state has been rather slow, mainly because the water users' associations have not been transferred the responsibility of managing the water resources.

### Irrigation Potential

The ultimate irrigation potential in the state is estimated to be 117.54 lakh hectares, including major, medium and minor irrigation schemes (Table 5.22). Till date, the created potential of 68.90 lakh hectares is 58.6 percent of the ultimate potential. The utilised potential of 56.66 lakh hectares, which is 82.2 percent of created potential and 48.2 percent of ultimate potential (Table 5.22). If ultimate potential is exploited fully, it will be far more than the total demand for irrigation in the state.

**Table 5.22 : Ultimate, Created and Utilised Irrigation Potential in Bihar**

(area in lakh ha.)

Type of Irrigation Potential	Ultimate Potential	Created Potential	Utilised Potential
(a) Major and Medium Irrigation	53.53	29.46	21.3
(b) Minor Irrigation	64.01	39.44	35.4
(i) Surface Irrigation	15.44	7.45	7.1
(ii) Ground Water	48.57	31.99	28.3
Total	117.54	68.90	56.7

Note : The created and utilised potential is upto March, 2016

Source : Department of Minor Water Resources and Department of Water Resources, GOB

To expand the irrigation facilities, three new schemes have been started by the Department of Minor Water Resources during 2015-16 and 2016-17. These schemes are — Bihar Shatabdi Niji Nalkub Yojana, Installment of Automatic Water Level Recorder, and Surface Irrigation Schemes under Accelerated Irrigation Benefit Programme (AIBP). The first one (Bihar Shatabdi Niji Nalkub Yojana) is a subsidy-based scheme and, till date, 4091 tubewells have been installed and 11.46 thousand hectares of irrigation potential has been created. Under Major and Medium irrigation, a total of 21.32 thousand hectares of irrigation potential has been created in 2015-16, as against the total ultimate potential of 53.53 lakh hectares (Table 5.23). This shows an achievement of 39.8 percent.

**Table 5.23 : Creation of Irrigation Potential under Major and Medium Irrigation (2015-16)**

Name of Scheme	Created Irrigation Potential (in ha.)
Western Kosi Canal System	12000
Durgawati Reservoir Scheme	3000
Construction of Barrage on Dardha river near village Lavaich Rampur	450
Uderasthan Barrage Scheme	450
Jagannath Weir Scheme	2140
Vishnu Weir Scheme	2420
Solhanda Weir Scheme	200
Construction of Causeway on Nonai River	600
Jamania Pump Canal Scheme	64
<b>Total</b>	<b>21324</b>

Source : Department of Water Resources, GOB

Along with the creation of new irrigation potential, it is necessary to ensure that the already created irrigation potential is fully utilised. Due to heavy sedimentation and breach in the irrigation canal system, the created irrigation potential is sometimes not utilised fully. The state government is now making efforts to rehabilitate the irrigation potential that was already created but lost.

#### Major and Medium Irrigation

During 2015-16, the gross irrigated area in the state has increased to 29.46 lakh hectares from 29.25 lakh hectares in 2014-15, showing a modest increase of 0.71 percent. The net area irrigated in the state has also increased to 21.25 lakh hectares in 2015-16, compared to 19.42 lakh hectares in 2014-15, showing an increase of 9.42 percent.

The utilisation efficiency of major and medium irrigation schemes is indicated by the ratio of actual irrigation and the created irrigation potential. During the recent years, this utilisation efficiency has varied between 52.1 percent in 2011-12 to 72.6 percent in 2013-14 (Table 5.24). During 2015-16, it was at the level of 72.1 percent. On an average, the utilisation efficiency has been 64.7 percent during the last five years.

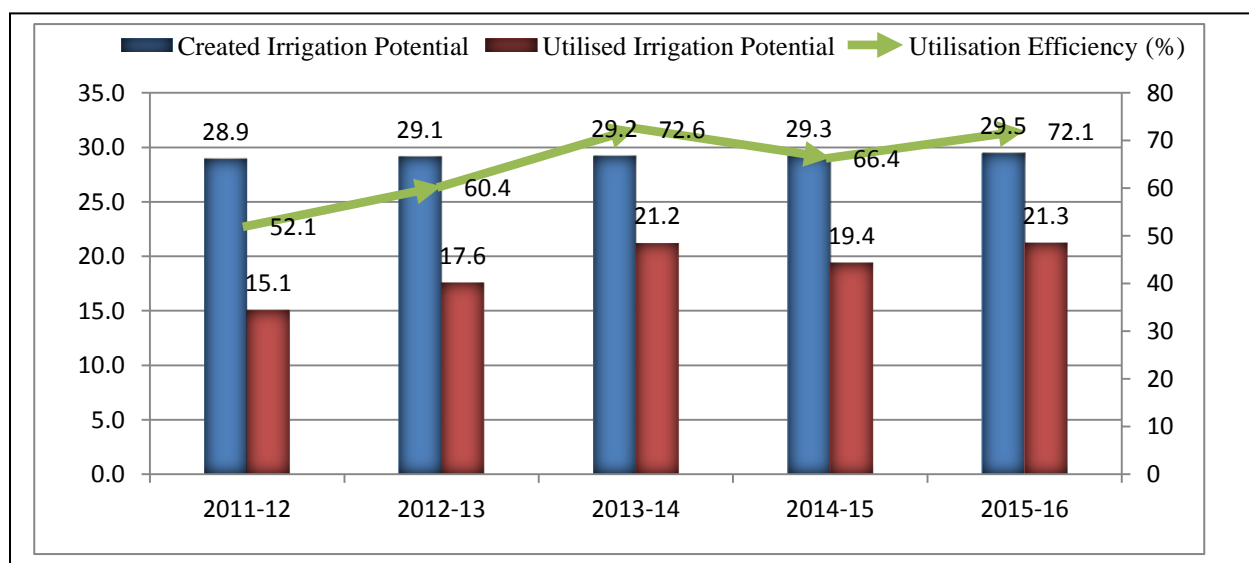
**Table 5.24 : Water Utilisation Efficiency of Major and Medium Irrigation Schemes**

(Figures in '000 ha)

Year	Created Irrigation Potential	Kharif		Rabi		Hot Weather		Total Utilised Irrigation Potential	Utilisation Efficiency (%)
		Target	Irrigation	Target	Irrigation	Target	Irrigation		
2011-12	2893	1305	1171	395	337	0	0	1508	52.1
2012-13	2913	1491	1394	439	366	0	0	1760	60.4
2013-14	2921	1865	1614	567	491	15	15	2120	72.6
2014-15	2925	1865	1628	373	314	0	0	1942	66.4
2015-16	2946	1918	1718	485	382	28	26	2125	72.1

Source : Department of Water Resources, GOB

**Chart 5.1 : Pattern of Water Utilisation Efficiency of Major and Medium Irrigation**



For better water management, Participatory Irrigation Management (PIM) was initiated in Bihar in 1997, as per the guidelines of the central government. The objective of the programme was to create a sense of ownership of water resources and the irrigation system among the users, and thereby promote economy in water use and preservation of the system. Out of 79 registered societies in the state which have already given their consent, the management of irrigation



system has been transferred to 53 societies and the process of transfer is on-going for 26 remaining societies. The status of other farmers' societies is presented in Table 5.25.

**Table 5.25 : Status of Farmers Societies**

Status	Management of irrigation System Transferred	Societies ready for transfer of system	Applied for Registration	Registered Societies in the process of giving consent	Under the process of motivation	Total
Number	53	26	26	7	510	622

Source : Department of Water Resources, GOB

### Minor Irrigation

The ultimate potential of minor irrigation is around 64.01 lakh hectares, of which 15.44 lakh hectares are through surface irrigation and 48.57 lakh hectares through ground water. Out of this total potential, 34.80 lakh hectares (54.4 percent) has already been created, of which 7.09 lakh hectares is under surface irrigation and 27.71 lakh hectares under ground water irrigation (Table 5.26). It may also noted that, of the total ground water irrigation, a substantial proportion (75 percent) comes from the private tubewells. According to the Fourth Minor Irrigation Census (2006-07), there were 56112 dug wells, 5,71,871 shallow tubewells, 23,259 deep tubewells, 7396 surface flow schemes and 4731 surface lift schemes in Bihar. The number of such irrigation facilities has obviously increased much since the last census.

**Table 5.26 : Status of Minor Water Resources in Bihar**

(Potential in lakh ha.)

Irrigation Sources	Ultimate Potential	Created Potential	Utilized Potential
1. Surface Irrigation	15.44	7.44	7.09
(i) Ahar / Pynes/ Irrigation Tanks		2.85	2.85
(ii) Lift Irrigation		2.44	2.09
(iii) Surface minor Irrigation Bear/ Slice Gates		2.16	2.16
2. Ground Water Irrigation	48.57	31.39	27.71
(i) State Tubewells		7.78	4.10
(ii) Private Tubewells		23.61	23.61
<b>Total</b>	64.01	38.83	34.80

Note : The created and utilised potential is upto March, 2016

Source : Department of Minor Water Resources, GOB

The area that was brought under minor irrigation was 2.82 lakh hectares (2012-13), 1.42 lakh hectares (2013-14), 0.38 lakh hectares (2014-15) and 0.72 lakh hectares (2015-16), as mentioned in Table 5.27. Due to heavy sedimentation and breach in the irrigation canal system, the created irrigation potential is sometimes not exploited fully.

**Table 5.27 : Area Brought under Irrigation through Minor Irrigation Sources**

(area in ha.)

Source	2012-13	2013-14	2014-15	2015-16
Surface Canal	36315	26086	9310	0
Tanks (including Ahars and Pynes)	59407	41591	10934	28631
Tubewells (Private and State)	161962	64251	15610	38440
Other Sources (Lift Irrigation) and Barge Lift Irrigation	24220	9627	2564	5055
<b>Total</b>	<b>281904</b>	<b>141555</b>	<b>38418</b>	<b>72126</b>

Source : Department of Minor Water Resources, GOB

Two other important schemes for irrigation are :

- (i) Bihar Shatabdi Niji Nalkup Yojana : The scheme is operational in every block of all 38 districts of the state. Under this scheme, a maximum amount of Rs. 15,000 is provided for shallow tubewell, Rs. 35,000 is provided for medium depth tubewell and Rs. 10,000 is provided for motor pump.
- (ii) Telemetry Scheme (Automatic Digital Water Level Recorder) : In this scheme, telemetry instrument is to be installed in all block and district headquarters of the state. Till date, 83 telemetry instruments have already been installed.

The state government plans to create an additional irrigation potential of 59.50 lakh hectares through surface and ground water by 2022. It is proposed to create 15.14 lakh hectares (25.4 percent) of additional potential through surface irrigation and 44.36 lakh hectares (74.6 percent) through ground water.

### Ahars and Pynes

Ahars and Pynes system is an indigenous irrigation technology. Ahar-Pyne system of indigenous irrigation is historically the most important source of irrigation in south Bihar and even today

they provide a good example of participatory irrigation management. There are three factors which are responsible for the wide prevalence of this mode of irrigation in this region — (i) scanty rainfall, (ii) a sharp slope which allows water to quickly run away, and (iii) the nature of soil, which is either stiff clay or loose sand, both equally unreceptive of moisture. Most of the places in the south Bihar region receive an average annual rainfall of about 1000 mm, which may be just sufficient for other crops, but not adequate for cultivating paddy. The Ahar and Pyne system has been made functional under several schemes, as detailed below:

- (a) State Plan : A total of 275 schemes were taken under State Plan, out of which 113 schemes have been completed in the year 2016-17. This has created an irrigation capacity of 15,826 hectares and at a cost of Rs. 126.15 crore.
- (b) Rural Infrastructure Development Fund (RIDF) : Presently, there are 150 schemes under RIDF, out of which 29 schemes have been completed in 2016-17. This has resulted in the creation of 10,913 hectares of irrigation capacity and the cost is Rs. 34.29 crore.
- (c) Accelerated Irrigation Benefit Plan (AIBP) : Under this Plan, work on 54 schemes has been completed in the year 2015-16. Further, permission for 47 schemes has been approved by the central government and a sum of Rs. 141.29 crore has been earmarked for them. Implementation of these schemes is underway and will create an irrigation capacity of 21,069 hectares. These schemes are being implemented in Nawada, Rohtas, Kaimur and Sitamarhi districts.
- (d) Repair, Renovation and Restoration (RRR) of Water Body : Under this component, a proposal for 34 schemes and at an estimated cost of Rs. 73.73 crore for the renovation of Ahar-Pynes and weirs has been sent to the central government for clearance. After implementation, these schemes will result in the resurrection of an irrigation capacity of 21,075 hectares.
- (e) Pradhan Mantri Krishi Sinchai Yojana (PMKSY) : Under this Plan, schemes for 83 Ahar-Pynes and weirs are under process and the estimated cost for these schemes is Rs. 135.87 crore. Execution of these schemes will result in the creation of 28,430 hectares of irrigation capacity.

**Table 5.28 : District-wise Number of Ahars, Pynes and Ponds made functional under Different Programmes**

District	Number of System Made Functional				Total
	RIDF	State Plan	AIBP	RRR of Water Bodies	
Patna	9	21	0	12	42
Nalanda	50	26	0	0	76
Bhojpur	11	7	0	0	18
Buxar	4	6	0	0	10
Rohtas	3	0	0	1	4
Kaimur	5	4	0	0	9
Gaya	29	38	0	1	68
Jehanabad	10	20	0	1	31
Arwal	1	5	0	0	6
Nawada	20	0	14	0	34
Aurangabad	9	3	0	0	12
Siwan	4	0	0	0	4
West Champaran	0	3	0	0	3
East Champaran	1	4	0	0	5
Sitamarhi	3	0	0	0	3
Madhubani	3	4	0	0	7
Munger	5	5	0	0	10
Sheikpura	7	14	0	0	21
Lakhisarai	9	8	0	0	17
Jamui	0	10	147	0	157
Bhagalpur	10	3	0	0	13
Banka	0	5	0	0	5
<b>Total</b>	<b>193</b>	<b>186</b>	<b>161</b>	<b>15</b>	<b>555</b>

Source : Department of Minor Water Resources, GOB

### Interlinking of Rivers

The state of Bihar is plagued by a paradoxical problem regarding water. While north Bihar faces the problem of floods, south Bihar is drought prone. To find a solution of drought in South Bihar, and simultaneously to minimize the threat of flood in North Bihar, there is a plan for linking the rivers of the state. This will first require identifying the rivers to be interlinked and then preparing Detailed Project Reports (DPR) for execution. These schemes will be formulated in such a way that they do not cross state or international boundaries. In future, however, these could be extended to or be coordinated with the inter-state or international schemes as per the requirements of the state.

## APPENDIX

**Table A 5.1 : District-wise Road Network in Bihar**

(Length in km)

Districts	2001			2010			2016 (upto September)			Growth (2001 to 2016)		
Categories	NH	SH	MDR	NH	SH	MDR	NH	SH	MDR	NH	SH	MDR
Patna	393	80	447	395	151	422	395	208	562	2	128	115
Nalanda	142	78	197	177	157	179	177	192	448	35	114	251
Bhojpur	85	47	291	85	94	290	85	167	282	0	120	-9
Buxar	55	53	125	55	79	108	55	78	127	0	25	2
Rohtas	40	302	222	145	235	408	145	231	383	105	-72	161
Kaimur	52	46	184	52	99	211	99	85	269	47	39	85
Gaya	120	72	307	120	227	255	120	240	624	-1	168	317
Arwal / Jehanabad	81	54	147	134	46	185	134	72	354	53	18	207
Nawada	84	45	130	84	141	102	84	212	172	0	167	42
Aurangabad	137	37	204	137	89	222	137	158	256	0	121	52
Saran	181	4	222	181	117	185	181	202	360	-1	198	138
Siwan	54	54	255	54	125	231	54	156	306	0	102	51
Gopalganj	96	29	303	96	50	311	96	53	353	0	24	50
W. Champaran	0	154	289	112	47	317	112	115	293	112	-39	4
E. Champaran	90	98	256	94	100	285	94	131	474	4	33	218
Muzaffarpur	229	12	375	229	70	359	259	76	467	30	64	92
Sitamarhi	102	26	188	102	53	200	168	94	214	66	68	26
Sheohar	22	14	33	22	14	33	22	12	101	0	-2	68
Vaishali	128	46	194	128	81	188	128	113	343	0	67	149
Darbhanga	49	89	282	49	106	262	50	224	472	1	135	190
Madhubani	208	104	333	208	213	312	236	98	380	28	-6	47
Samastipur	66	87	391	66	137	393	66	194	429	0	107	38
Begusarai	96	41	203	96	42	199	102	43	209	6	2	6
Munger	39	34	82	39	35	45	85	34	46	46	0	-36
Shekhpura	12	39	92	12	52	92	46	22	137	34	-17	45
Lakhisarai	45	59	14	45	59	33	51	49	93	6	-10	79
Jamui	0	130	199	-	220	184	197	63	208	197	-67	9
Khagaria	92	4	148	92	0	130	92	16	243	0	12	95
Bhagalpur	146	48	136	146	81	213	146	72	264	0	24	128
Banka	0	173	146	-	175	254	86	169	200	86	-4	54
Saharsa	60	43	64	60	58	311	93	81	279	33	38	215
Supaul	133	29	211	133	165	480	216	134	505	83	105	294
Madhepura	109	19	105	109	97	100	109	99	103	0	80	-2
Purnea	103	92	238	103	129	290	116	141	227	13	49	-11
Kishanganj	0	78	111	0	79	425	68	49	221	68	-29	110
Araria	72	39	205	85	112	266	154	69	376	82	30	171
Katihar	90	22	408	90	52	487	165	103	275	75	81	-133
<b>Total</b>	<b>3410</b>	<b>2382</b>	<b>7739</b>	<b>3734</b>	<b>3787</b>	<b>8965</b>	<b>4621</b>	<b>4253</b>	<b>11054</b>	<b>1211</b>	<b>1871</b>	<b>3315</b>

Source: Department of Road Construction, GOB

**Table A 5.2 : District-wise Registered Vehicles in Bihar During 2015-16**

(in No.)

District	Truck	Bus	Car	Taxi	Jeep	Three Wheeler	Two Wheeler	Tractor	Trailer	Other	Total
Patna	3843	454	14440	1064	1948	5177	82771	2267	1283	-	113247
Nalanda	446	39	302	149	253	650	13858	1184	472	23	17376
Bhojpur	386	55	297	142	577	999	19697	947	956	-	24056
Buxar	132	26	161	42	138	401	6865	1027	1029	6	9827
Rohtas	149	36	490	25	159	927	10958	1329	1343	-	15416
Kaimur	29	30	98	18	110	201	6186	840	557	57	8126
Gaya	629	116	1332	385	931	3203	27466	1256	811	3	36132
Jehanabad	286	22	36	19	52	445	3901	458	456	54	5729
Arwal	2	4	1	15	14	95	857	321	285	13	1607
Nawada	48	18	106	38	124	225	7988	1016	955	99	10617
Aurangabad	166	21	125	113	576	1331	8775	846	753	242	12948
Saran	156	18	392	253	383	835	13249	804	111	92	16293
Siwan	397	42	484	188	753	571	27852	1073	71	-	31431
Gopalganj	257	35	265	63	568	254	16666	1036	11	-	19155
W. Champaran	311	8	258	88	288	562	8523	767	344	1	11150
E. Champaran	436	31	298	189	517	922	6049	1889	227	-	10558
Muzaffarpur	2295	339	4213	1297	1646	2645	53218	2301	272	-	68226
Sitamarhi	87	2	26	35	112	907	18405	834	222	-	20630
Sheohar	3	4	9	15	36	102	2151	133	22	7	2482
Vaishali	244	59	1317	91	161	1103	24064	883	315	447	28684
Darbhanga	506	25	880	428	451	2538	19883	991	427	105	26234
Madhubani	148	3	112	158	249	633	17506	1420	965	-	21194
Samastipur	138	48	240	101	151	905	22687	1118	709	-	26097
Begusarai	637	31	1231	348	183	1166	18406	610	561	-	23173
Munger	69	-	55	42	46	405	5871	139	151	27	6805
Shekhpura	39	2	10	41	23	85	1785	250	244	8	2487
Lakhisarai	85	3	15	26	23	6	458	118	89	-	823
Jamui	74	7	9	58	114	511	5930	346	344	-	7393
Khagaria	61	2	71	41	-	331	7266	500	444	190	8906
Bhagalpur	230	24	1004	135	801	1608	9338	732	825	34	14731
Banka	82	18	28	11	52	64	3211	426	428	-	4320
Saharsa	130	33	383	53	118	550	6744	671	314	-	8996
Supaul	76	10	53	20	105	178	11783	852	154	11	13242
Madhepura	31	8	132	80	-	882	8145	932	363	7	10580
Purnea	1693	94	1077	347	-	4321	6432	2171	272	-	16407
Kishanganj	6	6	254	26	-	203	16723	318	114	30	17680
Araria	15	14	236	30	78	532	7405	987	668	18	9983
Katihar	101	4	310	18	22	150	19971	978	438	-	21992
<b>Total</b>	<b>14423</b>	<b>1691</b>	<b>30750</b>	<b>6192</b>	<b>11762</b>	<b>36623</b>	<b>549043</b>	<b>34770</b>	<b>18005</b>	<b>1474</b>	<b>704733</b>

Source: Department of Transport, GOB

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## CHAPTER - VI

### ENERGY SECTOR

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Energy is the oxygen of any economy and adequate, reliable and quality power at a reasonable price is essential for economic growth. Without power, it is neither possible to run the production process in primary, secondary and tertiary sectors, nor provide for the amenities that make life more comfortable and enjoyable. Bihar's economy is now growing at a fast rate and the state government has accorded the highest priority to the power sector. Indeed, under the 'Saat Nischay' of the state government, indicating its seven basic development commitments, 'Har Ghar Bijli Lagaatar' (Regular supply of power to all households) is the third component, which will ensure metered electric connection to all rural and urban households in Bihar by 2018.

#### 6.1 Availability of Power

There has been significant improvement in power availability in Bihar from 1712 MW in 2011-12 to 3769 MW in 2016-17 (up to October, 2016) i.e, a growth about 120 percent in six years (Table 6.1). As is apparent from the table, the peak deficit in power has been around 30 percent for several years till 2012-13; by 2015-16, this deficit was reduced to around 16 percent. Due to increased availability of power from an average of 6-8 hours to 14-16 hours in rural areas and from 10-12 hours to 20-22 hours in urban areas, the per capita consumption in the state has risen from 145 kwh in 2012-13 to 258 kwh in 2015-16, implying a growth of about 78 percent in three years.

**Table 6.1 : Power Scenario (2011-12 to 2015-16)**

Characteristic	2011-12	2012-13	2013-14	2014-15	2015-16
Peak Demand (MW)	2500	2650	3150	3500	4112
Peak Met (MW)	1712	1802	2335	2831	3459
Peak Deficit/ Surplus (MW) (-/+)	-788	-848	-815	-669	-653
Peak Deficit/ Surplus (%) (-/+)	-31.5	-32.0	-25.9	-19.1	-15.6
Energy Requirement (MU)	14454	15321	18212	22226	25550
Energy Availability (MU)	12145	13267	15045	18731	21679
Energy Deficit/ Surplus (MU) (-/+)	-2309	-2054	-3464	-3495	-3871
Energy Deficit/ Surplus (%) (-/+)	-16.0	-13.4	-19.0	-15.7	-15.2
Per Capita Consumption (kwh)	134	145	160	203	258

Source : Department of Energy

There is considerable variation across the districts in terms of per capita power consumption (Table 6.2). In 2015-16, the top 3 districts in power consumption were — Patna (4197 kwh), Gaya (1214 kwh) and Muzaffarpur (916 kwh). At the other end, 3 most disadvantaged districts were — Sheohar (50 kwh), Arwal (95 kwh) and Sheikhpura (136 kwh).

**Table 6.2 : District-wise Per Capita Consumption**

District	Per Capita Consumption (kwh)		District	Per Capita Consumption (kwh)	
	2014-15	2015-16		2014-15	2015-16
Patna	3959	4197	Darbhangha	381	482
Nalanda	672	813	Madhubani	325	407
Bhojpur	380	494	Samastipur	343	453
Buxar	276	351	Begusarai	370	452
Rohtas	625	785	Munger	255	310
Kaimur	358	432	Sheikhpura	114	136
Gaya	1003	1214	Lakhisarai	171	213
Jehanabad	216	273	Jamui	167	191
Arwal	69	95	Khagaria	134	180
Nawada	161	286	Bhagalpur	628	714
Aurangabad	321	497	Banka	161	215
Saran	459	605	Saharsa	185	282
Siwan	233	291	Supaul	185	264
Gopalganj	195	294	Madhepura	165	235
W. Champaran	260	402	Purnea	358	382
E. Champaran	341	428	Kishanganj	143	188
Muzaffarpur	735	916	Araria	161	207
Sitamarhi	201	270	Katihar	188	255
Sheohar	33	50			
Vaishali	444	586	<b>Bihar</b>	<b>203</b>	<b>258</b>

Source : Department of Energy, GOB

## 6.2 Projection of Power Requirement

Access to electricity on 24×7 basis to all its citizens is indeed synonymous with social equality. Thus, as mentioned before, the state government has made ‘Har Ghar Bijli Lagaatar’ resolve. Through this resolve, together with ongoing Rural Electrification Scheme, the state government will provide electricity to all households in Bihar.



There will be a quantum jump in power demand in the state in the coming years, mainly due to large scale release of service connection in rural areas towards full electrification, substantial increase in agriculture consumers, rise in demand of existing consumers (because of widespread use of electrical gazettes), and industrialization of the state. Table 6.3 presents the estimated annual energy requirement for all consumers for the period 2016-17 to 2018-19.

**Table 6.3 : Annual Energy Requirement for Rural and Urban Households**

(Figures in MU)

Category of Households	2016-17	2017-18	2018-19
Existing Electrified Households	5739	9715	14612
Unelectrified/ New Households when Electrified	3976	4896	5331
Total Domestic Requirement	9716	14612	19943
Consumers other than Domestic	8472	9688	11922
New Agricultural Connections	620	819	2240
<b>Total</b>	<b>18808</b>	<b>25119</b>	<b>34105</b>

Source : Department of Energy, GOB

Table 6.4 shows the projected energy requirement at the state periphery, considering distribution losses and intra-state transmission loss trajectory. The expected power demand of Bihar by 2018-19 shall be of the order of 5594 MW, with an annual energy requirement of 44,371 MU.

**Table 6.4 : Annual Energy and Peak Demand Requirement at State Periphery**

Indicators	2016-17	2017-18	2018-19
Energy requirement as per demand projections (MU)	18808	25119	34105
Distribution losses (Percentage)	32	28	20
Intra-state transmission losses (Percentage)	3.92	3.92	3.92
Energy requirement at state periphery (MU)	28788	36312	44371
Peak demand at 0.734 Load Factor (MU)	4431	5594	6838
Peak demand at 0.734 Load Factor (MW) (Including Agricultural load upto 50% only) (MW)	4108	4776	5594

Source : Department of Energy, GOB

The power capacity availability in the state was 3336 MW in March, 2016. In order to meet the increased demand, the state government has already planned for additional capacity of 5589 MW from different sources in a phased manner by 2018-19. These sources are — own generating

stations, renewable energy sources, central generating stations, and long/ medium term Power Purchase Agreements (PPA) through competitive bidding. The source-wise details of this additional capacity is presented in Table 6.5. As per the present generation plan, the additional capacity of 5589 MW is expected to be added by 2018-19 (either from new projects, or from those which are under construction, or from those old projects which are being renovated or modernised). Out of this addition, about 171 MW shall be from non-conventional energy sources and 5418 MW from conventional sources. As such, the total available capacity for Bihar by 2018–19 is expected to be 8925 MW, of which 8220 MW will be conventional and the remaining 705 MW non-conventional.

**Table 6.5 : Year-wise and Source-wise Details of Capacity Expansion**

(Figures in MW)

Sources	March 2016	Cumulative Proposed Capacity		
		2016-17	2017-18	2018-19
State Sector				
State Thermal	0	110	470	720
State Small Hydro	55	88	88	88
Central Generating Stations Share				
CGS Thermal	2322	2322	3712	4727
CGS Hydro	469	469	469	469
IPPs Projects (Case1)	260	260	260	560
JV / Partnership (Thermal)	220	270	1368	1933
NCE / RNES	10	148	148	705

Note : IPP = Independent Power Producer; JV = Joint Venture;  
NCE = Non-Conventional Energy; RNES = Renewable Energy Source  
Source : Department of Energy, GOB

**Table 6.6 : Estimated Availability of Power and Energy (2016-17 to 2019-20)**

Year	Total Capacity (MW)	Estimated Peak Availability at State Periphery (MW)	Estimated Energy Availability at State Periphery (MU)
2016-17	3667	3012	23746.60
2017-18	6515	4904	38663.13
2018-19	8925	6519	51395.79
2019-20	9877	7817	6129.22

Source : Department of Energy, GOB

However, even with the availability of additional generation capacity, the state would still be facing a shortfall in terms of peak demand during 2016-17 (32.0 percent) to 2018-19 (4.7 percent), but it will be surplus during 2019-20 (9.05 percent). There will be a shortfall in energy availability during 2016-17 (17.5 percent), but a surplus in 2019-20 (32.3 percent) (Table 6.7).

**Table 6.7 : Projected Surplus/ Deficit in Power and Energy (2016-17 to 2019-20)**

Power Supply Position	2016-17	2017-18	2018-19	2019-20
Estimated Peak Requirement with 50% agriculture load (**) only (MW)	4431	5594	6838	7168
Estimated Peak Availability as per State Generation Plan (MW)	3012	4904	6519	7817
Peak demand Surplus(+) / Deficit(-) (MW)	(-) 1419	(-) 690	(-) 319	649
Peak demand Surplus/Deficit (Percentage)	(-) 32.0	(-) 12.3	(-) 4.7	9.05
Estimated Energy Requirement at State Periphery (MU)	28788	36312	44371	46590
Estimated Energy Availability at State Periphery as per State generation Plan (MU)	23746	38663	51396	61629
Energy Surplus(+) / Deficit(-) (MU)	(-) 5042	2351	7025	15039
Energy Surplus (+)/ Deficit (-) (Percentage)	(-) 17.5	6.5	15.8	32.3

Note : (\*\*) 50% agriculture load will be supplied in rotation

Source : Department of Energy, GOB

### 6.3 Institutional Structure of Power Sector

In April, 1958, the Bihar State Electricity Board (BSEB) was originally constituted under Section 5 of the Electricity (Supply) Act, 1948 and was mandated for the management of generation, transmission, distribution and other electricity-related activities in Bihar. Under the new Bihar State Electricity Reforms Transfer Scheme 2012, the BSEB has been unbundled into five companies in November, 2012 — (i) Bihar State Power (Holding) Company Limited (BSPHCL), (ii) Bihar State Power Generation Company Limited (BSPGCL), (iii) Bihar State Power Transmission Company Limited (BSPTCL), (iv) North Bihar Power Distribution Company Limited (SBPDCL) and (v) South Bihar Power Distribution Company Limited (NBPDCCL). The responsibilities of the newly-formed companies are briefly described below.

Bihar State Power (Holding) Company Limited (BSPHCL) : This Company owns shares of the newly-incorporated, reorganized four companies — Bihar State Power Generation Company Limited, Bihar State Power Transmission Company Limited, South Bihar Power Distribution Company Limited, and North Bihar Power Distribution Company Limited. It is vested with the assets, interest in property, rights and liabilities of the erstwhile Bihar State Electricity Board (BSEB). The Company will primarily be an investment company. It will co-ordinate the activities of other companies, handle disputes and provide all necessary support to them.

Bihar State Power Generation Company Limited (BSPGCL) : This company is responsible for coordinating and advising other companies and concerns, including subsidiaries, engaged in the generation of electricity. The coordination and advisory roles include all matters concerning the construction, operation and maintenance of generating stations and associated facilities. It is also responsible for procuring fuel and its transportation to various sites and settling pending disputes.

Bihar State Power Transmission Company Limited (BSPTCL) : This company is responsible for the transmission of electricity and is vested with the transmission assets, interest in property, and rights and liabilities of the erstwhile BSEB. Besides planning and coordination activities, this company is expected to develop an efficient system of intra-state transmission lines for electricity, connecting load centres to the generating stations.

North and South Bihar Power Distribution Companies Limited (NBPDC and SBPDCL): These two companies undertake the activities of distribution to all consumers, trading of electricity, and implementation of rural electrification schemes — under Deen Dayal Upadhyay Gram Jyoti Yojana (erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana), special Backward Region Grant Fund (BRGF), Integrated Power Devolvement System, State Plan, and schemes funded by Asian Development Bank (ADB), the last one being an Externally Aided Project (EAP). The introduction of open access in distribution as per the Electricity Act, 2003 and the directions of the regulator is also the responsibility of these two companies. They also tender, finalise and execute Power Purchase Agreements (PPA) and other agreements for sale or purchase of electricity.

The allocation of fund for BSPHCL and its subsidiary companies, Bihar Renewable Energy Development Agency (BREDA) and Bihar State Hydroelectric Power Corporation (BSHPC) was Rs. 3110.92 crore in 2013-14, which increased to Rs. 4189.92 crore in 2014-15. The outlay for 2016-17 is Rs. 8591.60 crore. The breakup of this amount under various heads is given in Table 6.9.

**Table 6.8 : Allocation of Funds under BSPHCL**

(Rs. crore)

Years	BRGF	State Plan						BSHPC (RIDF)	EAP	Total
		BSPHCL	Generation	Transmission	Distribution	BREDA	BSHPC			
2013-14	2125.00	367.346	25.00	25.00	215.00	50.00	15.00	63.57	225.00	3110.92
2014-15	1650.00	369.214	61.68	661.00	1099.18	20.00	38.93	69.92	220.00	4189.92
2015-16	2274.00	64.430	181.01	448.99	486.00	60.00	15.00	67.80	66.26	3663.49
2016-17	4533.00	714.89	915.00	700.00	1240.00	150.00	10.00	67.80	260.91	8591.60

Source : Department of Energy, GOB

## 6.4 Distribution Companies

The distribution is an extremely important component of the whole electricity supply chain, as this is the only arm that generates revenue. This revenue enables the state government to improve the entire supply chain, by purchasing more electricity from the central sector. Thus, a major challenge of the power sector reforms lies in the efficient management of the distribution sector. The distribution system in Bihar is being served by two distribution companies — North Bihar Power Distribution Company Limited (NBPDC) and South Bihar Power Distribution Company Limited (SBPDCL). These companies are serving more than 80 lakhs of electricity consumers.

**Table 6.9 : Category-wise Number of Effective Consumers (As per billing data)**

Year	Number of Effective Consumers								
	Domestic	Commercial	Industrial (LT)	Industrial (HT)	Public Lighting	Traction	Agriculture	Public Water Works	Total
2012-13	3773077 (91.3)	279879 (6.8)	18816 (0.5)	1317 (0.03)	399 (0.01)	17 (neg.)	57838 (1.4)	1098 (0.03)	4132441 (100.0)
2013-14	3900733 (91.9)	273466 (6.4)	15851 (0.4)	1422 (0.03)	389 (0.01)	19 (neg.)	51989 (1.2)	1192 (0.03)	4245061 (100.0)
2014-15	5174585 (92.5)	346375 (6.2)	19599 (0.4)	1582 (0.03)	511 (0.01)	19 (neg.)	52980 (0.9)	1302 (0.02)	5596953 (100.0)
2015-16	7407609 (92.5)	488690 (6.1)	31405 (0.4)	1922 (0.03)	1237 (0.02)	19 (neg.)	75087 (0.9)	1760 (0.02)	8007729 (100.0)

Note : Figures in bracket indicate percentage shares.

Source : Department of Energy, GOB

The two distribution companies are already implementing several schemes for expanding and strengthening their distribution networks. These ongoing schemes include transformer replacement, procurement of new transformers, replacement of old conductors of existing high tension (HT) and low tension (LT) lines, and construction of new HT and LT lines, Power System Stabilisers (PSS) and bays.

## 6.5 Operational and Financial Status

The generation and purchase of power (net of central transmission loss) in Bihar increased from 11,966 MU in 2011-12 to 21,677 MU in 2015-16. With increase in sales, the revenue collection has increased. The cost coverage has also risen from about 70 percent in 2011-12 to about 91 percent in 2015-16, thus bringing down financial loss from 31 percent to 9 percent. The financial status of the two distribution companies is described in Table 6.10.

**Table 6.10 : Financial Status of Power Sector**

Item	2011-12	2012-13	2013-14		2014-15		2015-16	
			NBPDCL	SBPDCL	NBPDCL	SBPDCL	NBPDCL	SBPDCL
Generation and Purchase (MU)	11966	12614	5381	8621	7029	10388	8929	12748
Sales (MU)	6695	7213	3605	4637	5004	5814	6505	7199
Losses (Percentage)	44.0	42.8	33.0	46.2	28.8	44.0	27.4	43.5
Average Revenue (Rs./Unit)	4.64	4.58	4.17	4.86	4.19	4.37	4.14	4.45
Sale of Power (Rs. crore)	3109.00	3307.00	1503.66	2254.77	2095.00	2540.28	2696.24	3202.37
Total Income (including subsidies) (Rs. crore)	5421.00	6480.56	2723.69	4190.81	3559.74	4610.37	4475.11	6309.15
Total Cost (Rs. crore)	7798.78	7707.55	2797.95	4459.50	3856.53	5357.92	4814.55	7043.32
Cost Coverage (Total Income/Total cost) (Percentage)	69.5	84.1	97.4	94.0	92.3	86.0	92.9	89.6
Financial Loss (Percentage)	30.5	15.9	2.6	6.0	7.7	14.0	7.1	10.4

Source : Department of Energy, GOB

During the recent years, the demand for electricity has been increasing continuously in the state, because of fast economic growth at one hand and the growth of population on the other. This has resulted in high AT&C (Aggregate Technical and Commercial) loss, specially due to large scale rural electrification. In 2015-16, it was as high as 43.5 percent. Earlier in 2013-14, it was even higher — 46.33 percent. The distribution companies have been trying to address this issue by improving the billing and collection system, along with the metering of all consumer connections. Energy accounting and auditing at feeders and distribution transformers (DT) are essential for reducing these losses and the distribution companies have already started this exercise.

## 6.6 Programmes for Electrification and Distribution Schemes

Three important programmes of the central government for expanding the coverage of electricity supply are — Integrated Power Development Scheme (IPDS) (Erstwhile Restructured Accelerated Power Development and Reforms Programme — R-APDRP), Din Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) (Erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana - RGGVY), and Special Plan (Backward Region Grant Fund). The progress of these programmes is presented below:

### Integrated Power Development Scheme (IPDS)

The scheme of R-APDRP, as approved by the central government for continuation in Twelfth and Thirteenth Plans, has been subsumed in the newly launched Integrated Power Development

Scheme (IPDS). It has several components — IT enablement of distribution sector, strengthening of distribution network for completion of targets, strengthening of sub-transmission network in urban areas, and metering of distribution transformer/feeders/ consumers in the urban areas.

Under Part-A of the erstwhile R-APDRP scheme, the work in 67 towns (excluding 4 franchise towns) is under progress. The distribution system is being strengthened under Part-B of the scheme in 60 towns and under the ADB-funded scheme in 7 towns. The work in 7 towns under the ADB-funded scheme is on the verge of completion. The aim is to provide real-time monitoring and control, minimizing loss, balancing load, and improving voltage profiles. The details of capital expenditure under R-APDRP are presented in Table 6.11.

**Table 6.11 : Capital Expenditure of R-APDRP**

Project Component under R-APDRP	Outlay (Rs. crore)	Expenditure incurred (Rs. crore)
R-APDRP — Part A	253.68	103.11
R-APDRP — Part B	1155.21	995.94
R-APDRP — SCADA	38.00	9.59
<b>Total</b>	<b>1446.89</b>	<b>1108.64</b>

Source : Department of Energy, GOB

### Village Electrification

The scheme of RGGVY, as approved by the central government for continuation in Twelfth and Thirteenth Plans, has now been subsumed in the new scheme of the central government, called Deen Dayal Upadhyaya Gramin Vidyut Yojana (DDUGVY). This scheme has the following objectives :

- (i) Separation of agriculture and non-agriculture feeders, facilitating judicious restoring of supply to agricultural and non-agriculture consumers in the rural areas.
- (ii) Strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas, including metering of distribution transformers/feeders/consumers.
- (iii) Rural electrification for completion of the targets laid down under RGGVY by carrying forward the approved outlay of RGGVY to DDUGJY.

Bihar, with 88.7 percent of its population living in rural areas (2011 census), remains the most ruralised state in India, the national average being around 68.9 percent. Thus, improving connectivity of rural areas to the power grid is of great importance. In view of this, the rural electrification work is being carried out in all the 38 districts of the state under DDUGJY. The progress of rural electrification under DDUGJY is presented in Table 6.12.

**Table 6.12 : Progress of Work under DDUGJY (Erstwhile RGGVY)**

(Figures for no. of villages)

Agencies / Targets / Achievements	Tenth Plan	Eleventh Plan		Twelfth Plan	Under DDG	DDG converted into UEV	Total
		Phase I	Phase II				
Electrification of Unelectrified Villages (UEV)							
Target							
NBPDCL	5954	4108	384	1414	60	133	12053
SBPDCL	10627	697	757	427	152	58	12718
Total	16581	4805	1141	1841	212	191	24771
Achievements							
NBPDCL	5954	4108	384	903	0	0	11349
SBPDCL	10627	697	757	327	0	0	12408
Total	16581	4805	1141	1230	0	0	23757
Intensive Electrification of Partially Electrified Villages (PEV)							
Target							
NBPDCL	-	5969	3510	13186	0	0	22665
SBPDCL	-	106	9433	7563	0	0	17102
Total	-	6075	12943	20749	0	0	39767
Achievements							
NBPDCL	-	5969	2955	6159	0	0	15083
SBPDCL	-	106	5939	2287	0	0	8332
Total	-	6075	8894	8446	0	0	23415

Note : DDG = Decentralised Distributed Generation

Source : Department of Energy, GOB

**Special Plan (BRGF)**

The Backward Regions Grant Fund (BRGF) of the central government is designed to redress regional imbalances in development. This is a fully funded scheme of the central government. The fund provides financial resources for supplementing and converging existing developmental inflows into identified backward districts. It aims to bridge critical gaps in local infrastructure and other development requirements that are not being adequately met through existing inflows. The fund will facilitate participatory planning, decision making, implementation and monitoring, reflecting the locally felt needs. It also helps to improve the performance of critical functions by the state government. The scheme is divided into four parts — Phase-I, Phase-II, Phase-II (Part-C) and Rural Electrification (RE). The estimated cost of the above schemes is Rs. 5818.19 crore. Till November 2016, the expenditure incurred is around Rs. 3073.99 crore.

**6.7 Transmission**

Power is supplied to various categories of consumers through a transmission network, which also involves the transformation of high voltage power to lower voltage. The transmission network



serves as an important link between the generation and distribution of electricity. The challenges pertaining to the transmission process are, thus, mostly related to the growing needs of the other two segments — generation and distribution. To meet the growing demand of power, a robust and reliable transmission network is required, for both inter-state and intra-state transmission. The existing transmission system is, therefore, being strengthened with proper planning to cater to the demand for 24 hour availability of power by all types of consumers.

Presently, about 9307 circuit km EHV (Extra High Voltage) transmission line, 104 grid sub-stations with total transformation capacity of 5590 MVA at 220/132 KV level and 8720 MVA at 132/33 KV level comprise the transmission system in Bihar. The projection for 2017-18 is 9907 circuit km transmission line, 148 grid sub-stations with 14570 MVA at 220/132 KV level and 15210 MVA at 132/33 KV transmission capacity. The required capacity for 24 hour power supply for the period 2016-17 to 2019-20 has been projected, as presented in Table 6.13. The plan of action to meet the projected demand in 2017-18 to 2019-20 has been shown in following Table 6.14. The power availability during the peak period was 2831 MW in 2014-15, which increased to 3769 MW in October 2016, implying an increase of 33 percent in two years.

**Table 6.13 : Projected Required Capacity for Power (2016-17 to 2019-20)**

Demand / Capacity	2016-17	2017-18	2018-19	2019-20
Peak Demand (MW)	4108	4776	5594	6497
Transformation Capacity needed to meet Peak Demand (MW)	7703	8955	10489	12182
Available Capacity MVA at 220/132 KV level	13030	14470	16500	18000
132//33 KV level	14570	15210	16500	18210

Source : Department of Energy, GOB

**Table 6.14 : Plan of Action for Strengthening Transmission**

Year	Nos. of New Grid Sub-Stations	New Transmission Lines (Circuit km)
2017-18	<ul style="list-style-type: none"> <li>▪ 400/220 kv-0 No.</li> <li>▪ 220/132/33kv-05 Nos.</li> <li>▪ 132/33 kv 07 Nos.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 400 kv-0</li> <li>▪ 220 kv-240</li> <li>▪ 132 kv-330</li> </ul>
2018-19	<ul style="list-style-type: none"> <li>▪ 400/220/132/33 kv-02 Nos.</li> <li>▪ 400/220/132 kv-1 No.</li> <li>▪ 220/132/33 kv-3 Nos.</li> <li>▪ 132/33 kv - 5 Nos.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 400 kv-18</li> <li>▪ 220 kv-132</li> <li>▪ 132 kv-105</li> </ul>
2019-20	<ul style="list-style-type: none"> <li>▪ 400/220/132kv-03 Nos.</li> <li>▪ 220/132/33 kv-3 Nos.</li> <li>▪ 132/33 kv - 7 Nos.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 400 kv-372</li> <li>▪ 220 kv-500</li> <li>▪ 132 kv-231</li> </ul>

Source : Department of Energy, GOB

## 6.8 Generation

The state government has several plans for improving the power scenario of the state. To achieve the objectives envisaged in the document '24×7 Power to All' and National Power Policy, the state government has initiated actions for extensive expansion of generation capacity through coal based power plants, hydro power generation and renewable energy generation. The BSPGCL has embarked on an ambitious plan to add substantial generating capacity in the next few years. It is targeting to achieve a total generating capacity of 830 MW by 2016-17, 2650 MW by 2017-18 and 4630 MW by 2021-22. In order to turn its vision into reality, BSPGCL has entered into Joint Ventures with reputed companies in the power sector, like National Thermal Power Corporation (NTPC) and National Hydro Power Corporation (NHPC).

The total generation capacity of power as on March 2016 for the state was 3825 MW. Out of this, 86.4 percent is from coal based thermal power, 9.7 percent from hydro power and the balance 3.9 percent from renewable energy sources. In terms of ownership, central sector has the largest share of 77.2 percent, followed by the private sector/IPPs 15.6 percent and state sector 7.2 percent. The details of existing generating capacity in Bihar are shown at in Table 6.15.

**Table 6.15 : Existing Generation Capacity (March 2016)**

(Figures in MW)

Ownership / Sector	Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	Grand Total
	Coal	Gas	Diesel	Total				
State	220	0	0	220	0	55	0	275
Private/ IPPs	460	0	0	460	0	0	138	598
Central	2627	0	0	2627	0	315	10	2952
Total	3307	0	0	3307	0	370	148	3825

Note : RES = Renewal Energy Sources; MNRE = Ministry of New and Renewable Energy;

IPP = Independent Power Producers

Source : Department of Energy, GOB

The present status of the three generating units that remained in Bihar after the bifurcation of the state in 2000 is as below :

### (1) Barauni Thermal Power Station (BTPS)

Although BTPS has 7 different units, 5 of them have already run through their working life and are not in service anymore. After completion of R&M of Unit 7, generation has started. Further R&M work of Unit 6 is in progress. The construction works of two new units of 250 MW each is also going on under the extension programme. With consistent efforts of the state government, the coal linkage and environmental clearance have been obtained for these two new units.

(2) Kanti Bijlee Utpadan Nigam Limited (KBUNL)

The KBUNL is a joint venture of NTPC and BSPGCL, having equity partnership ratio of 65:35. It has two units of 110 MW each. The power production has started in both the units after renovation and modernization last year. The construction work of two new units of 195 MW each is also going on under the extension programme.

(3) Kosi Hydel Power Station (KHPS)

The Kosi Hydro Power Station (Kataiya), Birpur, consisting of 4 units of 4.8 MW each was commissioned during 1970-78. This project was handed over to Bihar State Hydroelectric Power Corporation (BSHPC) in November, 2003. The renovation work of 3 out of 4 units has been completed and power generation has started.

At present, the work is in progress for some more generating units in Bihar. On completion of all these projects, the dependence of Bihar on the central sector for power will be lessened. The details of these new projects are presented below:

- (1) Nabinagar Stage-1 Plant : This project is located in Aurangabad district. For this power project, the construction works of 3 units of 660 MW each in progress. Due to sustained efforts of the state government, coal linkage has been allotted by the Ministry of Coal of the central government for starting own production in the state.
- (2) Power Projects in Buxar, Bhagalpur and Lakhisarai : The agreement has been signed with Satluj Hydro Electric Corporation for the construction of greenfield power projects at Chausa (Buxar), having 2 units of 660 MW each. In addition, agreement has also been signed with NHPC and NTPC for the construction of 2 greenfield thermal power plants of 660 MW each — the plant in Pirpainti (Bhagalpur) will be constructed by NHPC and that in Kajara (Lakhisarai) by NTPC.
- (3) Ultra Mega Power Project (Banka) : A proposal has been sent for the establishment of a power project in Banka (approximately 4000 MW), for which 2500 acres of land has been identified. The Central Water Commission has given consent for 120 cusecs of water from the Ganga river. The Power Finance Corporation (PFC) has incorporated two Special Purpose Vehicles (SPV) for carrying out the pre-award project activities. The Ministry of Power of the central government has allotted Barhat and Dhulia Nala Coal Block having a reserve of 731 MT. Bihar has been allotted 2000 MW of power from this project.

**Table 6.16 : Details of Existing and Planned Generation Units**

Thermal Plan	2015-16	2016-17 (Under Progress)	2017-18 (Under Progress)	2018-19	By 2022 (Upcoming Projects)	Beyond 2022
KANTI TPP (2x110 MW) (2x195 MW)		390 MW Unit 3 & 4 Feb.' 2017 (195 MW each)	—	—	—	—
BARAUNI TPP (2x110 MW) (2x250 MW)		220 MW Unit 7, Nov. 16 Unit 6, June 17 (110 MW each)	500 MW Unit 8, July 17 Unit 9, Nov. 17 (250 MW each)	—	—	—
NABINAGAR TPP (3x660 MW) 1980 MW	—	—	1320 MW Unit 1, June 2017 Unit 2, Dec. - 2017	660 MW Unit 3, June 18	—	—
BUXAR TPP (2x660 MW) SJVN	—	—	—	—	MoU signed on 20.11.15 1320 MW	—
BANKA UMPP (4000 MW)	—	—	—	—	—	4000 MW
<b>Total Installed Capacity</b>	<b>220 MW</b>	<b>830 MW</b>	<b>2,650 MW</b>	<b>3,310 MW</b>	<b>4630 MW</b>	<b>8,630 MW</b>

Note : Renewal of MOU with NTPC and NHPC for Kajra and Pimpri Project is under process

Source : Department of Energy, GOB

## 6.9 New Schemes / Projects

### Integrated Power Development Scheme

The project covers works relating to strengthening of sub-transmission and distribution network, provisioning of solar panels on government buildings, including Net-metering, metering of feeders /distribution transformers /consumers in 133 towns (excluding 6 distribution franchisee area) of Bihar to ensure 24X7 power supply and reduction in AT&C losses. The total approved cost of the scheme is Rs. 2100.50 crore. The ongoing scheme of R-APDRP has been subsumed in it.

The central government will provide 60 percent of the project cost as grant and the remaining 40 percent is to be arranged by the state government/distribution companies (DISCOM).

The scheme has been sanctioned in 2015-16 and the tendering process is in final stage.

### Deendayal Upadhyay Gram Jyoti Yojana (DDUGJY)

The central government has launched Deendayal Upadhyay Gram Jyoti Yojana (DDUGJY), whose objectives have already been mentioned before. The scheme has to be completed in 24

months after award of the works. Under the scheme tendering is under process and it will be finalized soon. The total sanction cost of the project is Rs. 5827.23 crore. The central government will provide 60 percent of the project cost as grant and the remaining 40 percent is to be arranged by the state government.

#### Mukhyamantri Vidyut Sambandh Nishchay Yojana

To achieve 'Har Ghar Bijli Lagatar' Nishchay, one of the seven resolves of Viksit Bihar, all BPL households are being provided with electric connection under Rural Electrification and all rural APL households will be provided connection in next two years under Mukhyamantri Vidyut Sambandh Nishchay Yojana. Estimated cost of this project is Rs. 1897.50 crore.

#### Ujwal Discom Assurance Yojna (UDAY)

For operational and financial turnaround of power distribution companies (DISCOM), the central Ministry of Power brought UDAY Scheme. The scheme includes various activities for improvement in operational and financial efficiencies which ultimately aims at (a) Reduction in AT&C Loss to 15 percent, and (b) Reduction in gap between Average Cost of Supply (ACS) and Average Revenue Realized (ARR) to zero, both by 2018-19. A tripartite agreement among Government of Bihar, central Ministry of Power, and DISCOMs (NBPDC and SBPDC) was signed on February 22, 2016.

The scheme also provides for taking over 75 percent of DISCOMs debt by the state government over 2 years (50 percent in 2015-16 and 25 percent in 2016-17). Out of the total debt of Rs. 3109.05 crore on both the DISCOMs of Bihar, Rs. 2332.01 crore has been taken over by the state government under UDAY Scheme.

Presently, all the parameters aiming to reduce AT&C Loss and ACS-ARR gap have been made online through UDAY website portal ([www.uday.gov.in](http://www.uday.gov.in)), where every participating DISCOM has to upload the progress on monthly/quarterly basis. The marks are assigned to each activity and marks obtained on the basis of achievement (quarterly/monthly) decide the ranking of DISCOMs among the participating states.

### **6.10 Recent Developments in Power Sector**

Training : Officers of Distribution and Transmission companies are being sent to different training institutes / power companies of the country for their capacity building and study of techniques and practices adopted in other states. Officers were also sent abroad (USA and UK) in

2016 for special training, where they studied the prevailing distribution and transmission system of developed countries.

Project Monitoring App : For intensive and real time monitoring of different projects going on in the power distribution companies in the state, a Mobile App 'DC-Nine' has been developed. Through this app, the latest status of the project and information regarding its inspection can be loaded on the mobile from the spot itself by the field project officers. Officers at headquarters get this information through MIS, resulting in continuous monitoring of project.

Spot Billing : Spot Billing has been ensured in all towns of the state through android mobile. It has been started in a few rural areas as well. Its implementation in all rural areas of the state will be completed by the end of March 2017.

Electric Bill Dispute Redressal Camp : Redressal of electric bill dispute is going on by organizing Electric Bill Dispute Redressal Camp on 15th of each month (next working day in case of holiday) at Electric Supply Sub-division level.

Toll Free Number 1912 : To resolve the complaints of consumers, one Toll Free number 1912 has been started in the state on 24×7 basis. On lodging complaint on this number, the consumers will get a call and SMS regarding their complaint. Arrangement has been made for time to time interaction of top management with consumers.

Training Centre : A training Centre (Bihar Power Training Institute) at Gaurichak, Patna has been established by BSPHCL for technical capacity building and skill development of its officers and staff and its subsidiary companies.

Pension Adalat : Every three months BSPHCL organizes Pension Adalat at Vidyut Bhawan premises, in which pending pension and other terminal benefit matters of retired employees are resolved.

Disposal of Departmental Proceedings : The BSPHCL organizes camps from time to time for quick disposal of pending departmental proceeding at Vidyut Bhawan premises in which field officers are also called and matters are disposed off in the camp itself.

Revenue Monitoring Cell : For effective supervision of revenue collection, a Revenue Monitoring Cell, headed by a Chief Engineer, has been formed at the headquarters.

New Documents : For better, effective and rapid implementation of projects by companies, new Standard Bidding Documents, Technical Specification and Payment Procedure have been prepared. For transparency in purchase of materials and better management, new Procurement Manual has also been prepared. For better operation and maintenance in transmission area, a new Maintenance Manual has been prepared.

Remote Meter Reading : Remote meter reading of High Tension (HT) and Low Tension (LT) industrial consumers is being done from the headquarters.

Prepaid Metering : For better metering in Patna, prepaid metering has been started in the Vidyut Board Colony which will be extended to other consumers in phase-wise manner.

Power Atlas : The first power transmission atlas ‘Power Atlas of Bihar’ has been prepared in which district-wise transmission lines and grid sub-stations have been shown.

New Techniques in Transmission System : In the new projects of transmission system, most advanced techniques in electricity like Sub-station Automation System (SAS), Optical Ground Wire (OPGW), High Temperature Low Sag (HTLS) conductor and Gas Insulated System (GIS) have been introduced.

GIS Mapping : GIS mapping of Power Lines, Power Sub-stations and Grid Sub-stations at 33 KV, 132 KV, 220 KV and 400 KV level has been completed.

### **6.11 Bihar Renewable Energy Development Agency (BRED A)**

Most of Bihar’s installed generation capacity is concentrated in thermal power plants. This not only leads to a concern about the clean generation of electricity, it also puts a fiscal burden on the state, given that the prices of coal may be very volatile. Thus, aside from promoting hydel power projects, the state government has also created an agency called Bihar Renewable Energy Development Agency (BRED A), which is responsible for the development of projects that would use non-conventional energy sources for production of electricity. The state government provides funds to BRED A for expenditure on subsidies for the schemes and also for the expenditure on establishments.

**Table 6.17 : Achievements of BREDA**

Schemes	Physical Achievement	Financial Outlay (Rs. crore)
<b>2012-13</b>		
<b>A. Solar Photovoltaic Scheme</b>		
Distribution of Solar Lanterns (across all districts)	2000 nos.	0.30
Distribution of Solar Lanterns (across all districts amongst SC/ST)	4000 nos.	0.60
<b>B. BEE (Bureau of Energy Efficiency) Schemes</b>		
LED street light installation in various places in Patna by Patna Nagar Nigam	240	0.72
LED bulbs and street lights in Nepura, Pilkhi, Sarilchak and Jahanabad (Nahub) villages	1152 nos.	0.13
<b>2013-14</b>		
<b>A. Solar Photovoltaic Scheme</b>		
Solar Water Pumping Systems installation under Bihar Saur Kranti's irrigation scheme	493 nos.	16.30
Solar electrification of Honorable Chief Minister's House, Janata Durbar, and residential office	100 Kwp	4.50
Distribution of Solar Lanterns (across all districts)	5000 nos.	0.99
Distribution of Solar Homelights	4900 nos.	2.94
<b>B. BEE (Bureau of Energy Efficiency) Schemes</b>		
LED street light installation in various places in Patna by Patna Nagar Nigam	366 nos.	0.31
LED street light installation in various places at Bodh Gaya by Bodh Gaya Nagar Panchayat	200 nos.	16.68
<b>2014-15</b>		
<b>A. Solar Photovoltaic Scheme</b>		
Solar Water Pumping Systems under <i>Mukhyamantri Naveen &amp; Naveekarniya</i> irrigation scheme	989 nos.	29.39
Solar electrification at Buxar Open Jail	100 kW	1.55
Solar electrification at Abhilekh Bhavan	50 kW	0.78
Solar electrification at Vidyut Bhavan	50 kW	0.67
Solar Electrification at Chief Justice House	40 kW	0.62
Solar electrification at District Collectorate, Hospital, Guest House of 25 kWp	34 nos. (850kW)	15.02
Solar electrification at District Collectorate, Hospital, Guest House of 8-25 kWp	02 nos. (50kW)	0.84
Solar Electrification at BBRA university, Muzaffarpur	100 kW	1.55
<b>B. BEE (Bureau of Energy Efficiency) Schemes</b>		
LED street light installation in various places in Patna by Patna Nagar Nigam	400 nos.	0.32
LED street light installation in various places in Patna, Biharsarif, Darbanga, and Gaya	1023 nos.	1.36
<b>2015-16 &amp; 2016-17 (upto October 2016)</b>		
<b>A. Solar Photovoltaic Scheme</b>		
Solar Water Pumping Systems installation under <i>Mukhyamantri Naveen &amp; Naveekarniya</i> irrigation scheme	995 nos.	29.39
Solar Water Pumping Systems installation under Bihar Saur Kranti's irrigation scheme	521 nos.	16.30
Solar Electrification at Chief Justice House	40 kW	0.62
Solar electrification at District Collectorate, Hospital, Guest House of 25 kWp	44 nos. (1100 kW)	19.43
Solar electrification at District Collectorate, Hospital, Guest House of 8-25 kWp	22 nos. (434 kW)	10.56
Solar Electrification at JP University, Chapra	100 kW	1.55
Solar Electrification at Apna Ghar, Patna	50 kW	0.59
Solar Electrification at Governor House, Patna	60 kW	1.10
Distribution of Solar Lantern in Katihar	5280 nos.	0.90



### **6.12 Bihar State Hydroelectric Power Corporation Limited**

Aside from thermal power, Bihar also has potential for generating power from water resources and, presently, this is being exploited to some extent. The Bihar State Hydroelectric Power Corporation Limited (BSHPC) was established to oversee expansion of hydroelectric power projects in the state. During the Tenth Plan, BSHPC started exploring possibilities for major hydel projects, besides its earlier mandate for minor hydel projects. There are 13 minor hydel projects that are currently operational in the state, with a total installed capacity of 54.3 MW. Presently, BSHPC is also engaged in exploring the possibilities of more minor hydel power projects in the state. There are 17 such schemes where the exploration work is in progress.

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## CHAPTER VII

### RURAL DEVELOPMENT

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Rural development connotes overall development of rural areas to improve the quality of life of the rural people. It is a multidimensional concept and encompasses, among others, the issues of poverty and human development in rural areas. Rural development is the end result of interactions among various physical, economic, social, cultural and institutional factors and it continues to remain a challenge for the state. In the recent years, the state government has made remarkable strides in rural development through programmes like extending irrigation network, improving road connectivity of the rural areas, increasing the availability of power, and a number of schemes to help the farmers to improve the technological base of agriculture. Some of these programmes to fortify the rural economy have also been supported by the central government. This chapter, however, is focused on those rural development programmes that directly help the rural population. These programmes include — Bihar State Rural Livelihood Mission (JEEVIKA), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Awas Yojana (PMAY) and Public Distribution System (PDS). Later, the chapter also presents the functioning of Panchayati Raj Institutions (PRI) and relevant information on Homestead Land Distribution, Disaster Management System, and Environment.

#### **7.1 Poverty**

Poverty is a multidimensional phenomenon. The strategies to eradicate poverty include not only economic growth, but direct interventions as well in many areas such as employment, education, health and a few others. For measuring poverty, the Planning Commission has adopted the Lakdawala Committee estimates for 1993-94 and 1999-2000 and used Tendulkar Committee estimates for 2004-05 and 2011-12.

Table 7.1 presents the poverty ratios in Bihar and India, for two pre-bifurcation and two post-bifurcation years. The poverty ratio for Bihar was 34.1 percent for rural and 31.2 percent for urban areas in 2011-12, implying an overall poverty ratio of 33.7 percent. These poverty ratios are much higher in India. Between 2004-05 and 2011-12, the poverty ratio in Bihar was reduced by 20.7 percentage points, from 54.4 percent in 2004-05 to 33.7 in 2011-12. It is heartening to note that this reduction in poverty level in Bihar was more than the reduction at all-India level (15.3 percentage points). Further, one may also note that the reduction in the poverty ratio in rural areas of Bihar (21.6 percentage point) was higher than in the urban areas (12.5 percentage points). If one compares the poverty ratios in Table 7.1, it emerges that, for urban areas, the difference between Bihar and India is very high (17.5 percentage points), whereas for rural areas

this difference is much lower (8.4 percentage point). Table A 7.1 (Appendix) presents the levels of rural, urban and overall poverty ratios in different states of country.

**Table 7.1 : Poverty Ratio of Bihar and India**

Area		1993-94	1999-00	2004-05	2011-12	Reduction in Poverty between 2004-05 and 2011-12
Bihar	Rural	58.2	44.3	55.7	34.1	21.6
	Urban	34.5	32.9	43.7	31.2	12.5
	Combined	55.0	42.6	54.4	33.7	20.7
India	Rural	37.3	27.1	41.8	25.7	16.1
	Urban	32.1	23.6	25.7	13.7	12.0
	Combined	36.0	26.1	37.2	21.9	15.3

Source : Planning Commission, Government of India

The poverty lines vary from state to state, because of inter-state price differentials. Table 7.2 presents poverty line of Bihar and All India in 2004-05 and 2011 -12. For 2011-12, the national poverty line using the Tendulkar methodology is estimated at consumption expenditure of Rs. 816 per capita per month for rural areas and Rs. 1000 per capita per month for urban areas. Thus, for a family of five, the all India poverty line implies consumption expenditure of about Rs. 4080 per month in rural areas and Rs. 5000 per month in urban areas. Similarly, the poverty lines for Bihar in 2011-12 are — monthly per capita consumption expenditure of Rs. 778 for rural areas and Rs. 923 for urban areas. This implies that, for a family of five, the consumption expenditure in a month will be Rs. 3890 and Rs. 4615 respectively for rural and urban areas. This has to be seen in the context of public expenditure that is being incurred in areas like education, health and food security. Thus, the actual well-being of the household will be higher than what is indicated by the poverty line.

**Table 7.2 : Poverty Lines for Bihar and All India**

Year	Monthly Per Capita Expenditure (Rs.)			
	Rural	Urban	Rural	Urban
	Bihar		All India	
2004-05	433	526	447	579
2011-12	778	923	816	1000

Source : Planning Commission, Government of India

## 7.2 Rural Development Programmes

In order to eradicate poverty in the rural areas, the state government is implementing a number of rural development programmes. This section provides the relevant data on four of the most important programmes.

### Bihar State Rural Livelihoods Mission (JEEVIKA)

JEEVIKA is an initiative of the state government to reduce rural poverty by providing support for livelihood activities. Another important objective of the project is to empower rural women, both socially and economically. It aims at increasing income of the rural poor by developing institutional capacity through Self Help Groups (SHGs) which can access better services from banks and other public agencies. The central Ministry of Rural Development has restructured the Swarnajayanti Gram Swarozgar Yojana (SGSY) into National Rural Livelihoods Mission (NRLM) in April, 2013. The Bihar Rural Livelihoods Promotion Society (BRLPS) functions under the overall framework of NRLM. The JEEVIKA programme of BRLPS had started initially in a limited number of districts, but it now plans to cover all 534 blocks of 38 district of Bihar in a phased manner. Over a period of 10 years, the mandate of JEEVIKA is to mobilize 1.5 crore rural households into 10 lakh SHGs, 65000 Village Organisations and 1600 Cluster Level Federations.

JEEVIKA has organised 70.98 lakh households into 5.57 lakh Self-Help Groups (SHGs) till October, 2016. It has also formed 32,431 Village Organisations (VO) and 365 Cluster Level Federations. The project emphasises on providing financial support to the SHGs by opening of saving bank account in different banks and ensuring their credit linkage. From 2015-16, JEEVIKA has started preparations for Bihar Transformative Development Project which it calls JEEVIKA II. This project aims at scaling up the JEEVIKA model across the state by further improving value chain and human development interventions. The new project's design reflects the ongoing pursuit of the state government for achieving a transformed rural Bihar through the agency of empowered women collectives. Till October 2016, 3.03 lakh SHGs have been linked with banks, and they were able to obtain a total loan of Rs. 2113 crore (Table 7.3).

**Table 7.3 : Progress of JEEVIKA**

Items	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 upto Oct.16
No. of SHGs formed	55704	91785	157157	365150	470220	557337
No. of VOs formed	3476	5069	7452	14363	31229	32431
No. of SHGs credit linked with banks	25621	55624	64812	121181	221261	303078
Bank credit (Rs. crore)	123	278	379	659	1300	2113

Source : Jeevika, Government of Bihar

Over the period, JEEVIKA has strengthened its core livelihood interventions through a number of activities. These SHGs have undertaken initiatives to promote self-employment on farms or off-farms or non-farm (Table 7.4). In addition, they have also arranged for a wide range of job creation. Till date, 1.28 lakh rural youth have been trained, either by Project Implementation Agencies (PIA) or Rural Self-Employment Training Institute (RSETI) to acquire various skills. Out of them, 93.2 thousand have also been able to find either self-employment or wage employment. Apart from these, another activity of these SHGs is reducing vulnerability of rural population by participation in Food Security Interventions or Health Risk Interventions. In 2015-16, 12.2 thousand VOs have received food security funds and 13.2 thousand VOs have received health risk funds.

**Table 7.4 : Extent of Livelihood Related Activities by SHGs**

Activities	Number
<b>Farms</b>	
Number of farmers who undertook paddy cultivation	250214
Number of farmers who undertook SWI ( System of Wheat Intensification)	272327
Number of farmers engaged in vegetable cultivation	198888
Number of farmers engaged in kitchen gardening	59772
Number of farmers producing Mentha oil	
Number of farm-based Producer Groups (PG)	1497
<b>Off- Farms</b>	
Number of Mother Units opened (Poultry)	352
Number of households linked with poultry intervention	104437
Number of Producer Groups (PG) formed ( Dairy)	448
Number of households linked with dairy	42900
<b>Non-Farm</b>	
Number of Producer Groups (PG) formed for non-farm products (sujani, sikki, madhubani, agarbatti etc.)	323
Number of households linked with non-farm PGs	15002
<b>Creating Jobs</b>	
Number of rural youths trained (PIA/RSETI)	127521
Number of Rural Youths placed/self employed in different organisations	93164
<b>Reducing Vulnerability</b>	
Number of VOs receiving Food Security Fund	12190
Number of VOs receiving Health Risk Fund	3196

Source : Jeevika, Government of Bihar

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

Notified in September 2005, MGNREGS aims at enhancing livelihood security of rural workers by providing at least one hundred days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The scheme covered 200 districts in India in its first phase, but now covers all the districts. The MGNREGS has become a powerful flagship scheme for inclusive growth in rural areas through its impact on livelihood security and social protection. This is expected to decrease distress migration and have multiplier effect on the rural economy.

The performance of MGNREGS between 2011-12 and 2015-16 is presented in Table 7.5. The number of job cards issued has been very high, more than 130 lakhs throughout the period. However, the number of households provided with employment has been decreasing over the years, except in 2015-16 when it increased to 15.1 lakhs. To the advantage of the women workers, their share in total employment has been above 28 percent in all the years; in 2015-16, this share was as high as 40.8 percent. In 2015-16, 99.9 percent of the fund was utilised, which is 25.5 percentage points higher than the utilization figure of the previous year. The total employment generated was 683.7 lakh persondays in 2015-16, compared to 352.7 lakh persondays in 2014-15. In 2015-16, only 34.2 lakh bank and post-office accounts were opened for payment of wages under this programme. Overall, the performance of MGNREGS was much better in 2015-16, compared to the year before.

**Table 7.5 : Performance of MGNREGS**

Year	2011-12	2012-13	2013-14	2014-15	2015-16
No. of Job Cards Issued (lakh)	133.8	133.5	131.9	131.2	131.6
No. of households provided with employment (lakh)	26.8 (20.1)	24.7 (18.5)	20.6 (15.6)	10.4 (7.9)	15.1 (11.5)
No. of households obtaining 100 days of employment (lakh)	1.4 (5.1)	1.6 (6.3)	1.2 (6.0)	0.3 (3.0)	0.6 (4.0)
Employment generated (lakh persondays)	866.4	965.4	862.2	352.7	683.7
Percentage share of women in total employment generated	28.2	29.9	35.0	37.3	40.8
Average employment per household (persondays)	32.3	39.2	41.9	34.1	45.2
Number of completed works	54589	64846	104832	114425	196647
Fund utilized (percentage)	65.0	82.9	81.8	74.4	99.9
No. of accounts opened (in lakh)	107.6	110.7	111.0	49.3	34.2

Note : Figures in parentheses denote percentages with respect to the previous row

Source : Department of Rural Development, GOB

The district-wise detail about the implementation of MGNREGS is presented in Table A 7.2 (Appendix). In that table, one can observe a wide variation across the districts in the performance

of MGNREGS. In 2015-16, the maximum number of job cards were issued in East Champaran (6.12 lakhs), followed by Muzaffarpur (5.94 lakhs) and Vaishali (5.36 lakh) and Gaya (5.36) lakh. Less than one lakh job cards were issued in small districts of Sheohar (0.84 lakhs), Arwal (0.97 lakhs) and Sheikhpura (0.98 lakhs). Out of total households, about 12 percent of SC households were having job cards. The percentage of households demanding employment was the highest in Sheohar (36.9 percent), followed by Jamui (26.7 percent); whereas the figure was the lowest in Muzaffarpur (6.6) percent. Jehanabad ranked first (12.0 percent) in providing 100 days of employment to those who had demanded it, followed by Buxar (8.7 percent), and Munger (5.8 percent). The districts recording more than 50 percent participation of women in 2015-16 were — Begusarai (53.8 percent), Gaya (53.6 percent) and Khagaria (53.5 percent). Less than 30 percent participation of women has been registered in Saran (21.2 percent), Rohtas (25.2 percent) and Siwan (26.4 percent). The district-wise financial progress under MGNREGS is shown in Table A 7.3 (Appendix). Jamui with 98.13 percent utilisation of fund is the best district in 2015-16. Other districts which had utilized more than 95 percent of the MGNREGS fund are — Nawada (98.1 percent), Sheikhpura (98.0 percent) and Madhepura (96.0 percent).

**Table 7.6 : Completed Works under MGNREGS**

Categories	2011-12	2012-13	2013-14	2014-15	2015-16
Water conservation	6059 (11.1)	7009 (10.8)	6879 (6.6)	1937 (1.7)	3307 (4.5)
Drought proofing	5360 (9.8)	16246 (25.1)	29121 (27.8)	17963 (15.7)	39046 (53.4)
Micro-irrigation works	4605 (8.4)	4335 (6.7)	5618 (5.4)	1429 (1.2)	3428 (4.7)
Provision of irrigation facility	1902 (3.5)	1813 (2.8)	3210 (3.1)	4029 (3.5)	0 (0.0)
Renovation of traditional water bodies	5065 (9.3)	6828 (10.5)	2428 (2.3)	592 (0.5)	924 (1.3)
Land development	3229 (5.9)	4090 (6.3)	7654 (7.3)	2761 (2.4)	6456 (8.8)
Flood control and protection	2554 (4.7)	2265 (3.5)	1318 (1.3)	273 (0.2)	575 (0.8)
Rural connectivity	25521 (46.8)	22056 (34.0)	28631 (27.3)	9410 (8.2)	17861 (24.4)
Any other activity	294 (0.5)	204 (0.3)	19973 (19.1)	76031 (66.4)	1586 (2.2)
Total Works Completed	54589 (100.0)	64846 (100.0)	104832 (100.0)	114425 (100.0)	73183 (100.0)

Note : Figures in the parentheses denote percent share to total works completed

Source : Department of Rural Development, GOB

The distribution of completed works under MGNREGS by different categories is presented in Table 7.6 for the last five years. The projects for Drought Proofing and Rural Connectivity have dominated the scheme during 2015-16, accounting for 53.4 and 24.4 percent of the total projects

respectively. The share of different categories of work, however, has varied much in different years. But ultimately, all these projects help in growth of rural infrastructure and expansion of livelihood options for the rural people.

#### Pradhan Mantri Awas Yojana (PMAY)

Since November, 2016, Pradhan Mantri Awas Yojana (PMAY) is the new name of erstwhile Indira Awas Yojana (IAY). It is a flagship programme of the Ministry of Rural Development and it has been in operation since 1985-86. This scheme is designed to provide shelter to houseless people living in rural areas by 2022, with special thrust on scheduled castes, scheduled tribes, freed bonded labourers and other disadvantaged households living below poverty line. Under this scheme, 3 percent of the total funds is earmarked for physically challenged persons. The amount of assistance under this scheme has been enhanced from Rs. 70,000 to Rs. 1,20,000 in plain areas and from Rs. 75,000 to Rs. 1,30,000 in hilly states/ difficult areas/ IAP districts. Presently, the funding pattern of the scheme between centre and state is 60:40.

Construction of a PMAY house is the sole responsibility of the beneficiary. The engagement of contractors is prohibited and no specific type, design has been stipulated for a PMAY house. However, sanitary latrine and smokless chullah are required to be constructed along with each PMAY house. For construction of a sanitary latrine, the beneficiary can avail of financial assistance as admissible under the Swachh Bharat Abhiyan. The details about the performance of PMAY in Bihar over the last five years is presented in Table 7.7. From the table, it is noted that the physical achievement under PMAY has been more than hundred percent in previous three years (2012-13 to 2014-15), but it has dropped to only 21.0 percent in 2015-16. The inclusion of SC/ST households is also low in that year (5.2 percent), compared to previous years. Further, the extent of fund utilisation has also decreased in 2015-16 (54.6 percent).

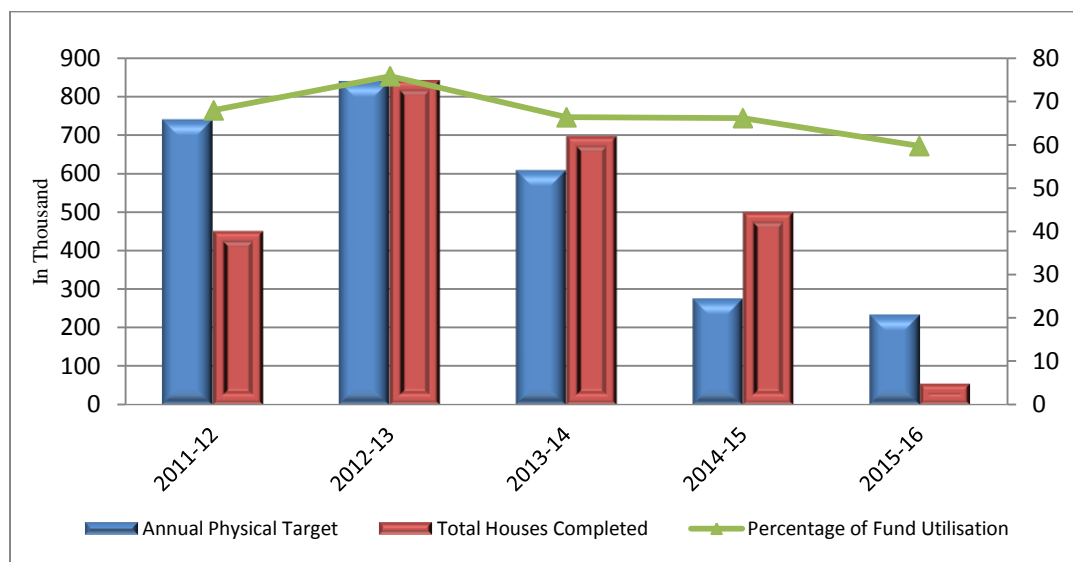
**Table 7.7 : Performance of the PMAY Scheme**

Year	Annual Physical Target (lakh)	Houses Completed (lakh)		Percentage of Fund Utilisation
		Total	SC & ST	
2011-12	7.37	4.50 (61.1)	2.00 (44.5)	68.0
2012-13	8.36	8.40 (100.4)	3.72 (44.3)	75.9
2013-14	6.06	6.95 (114.8)	3.12 (51.6)	66.4
2014-15	2.75	4.99 (181.5)	2.48 (90.2)	66.2
2015-16	2.33	0.49 (21.0)	0.12 (5.2)	54.6

Note : Figures in parentheses denote percentages with respect to the previous column  
Source : Department of Rural Development, GOB,



Chart 7.1 : Performance of the PMAY Scheme



### Public Distribution System (PDS)

The capacity of the poor to purchase food can be ensured in two ways – either by raising their incomes or through supplying foodgrains at subsidised prices. While the employment generation programmes attempt the first solution, the Public Distribution System (PDS) is the mechanism for the second option. The PDS for foodgrains is one of the main vehicles which ensure 'food security' to people of this country, especially the economically vulnerable ones. The PDS not only aims to make sure that foodgrains are available in sufficient quantities at all times even in the remotest regions, it also ensures that these are delivered to poor households at highly subsidized prices. This involves procurement of foodgrains at Minimum Support Price (MSP) by the government, its storage, and finally its distribution to the population through the PDS outlets. Four essential commodities distributed through PDS outlets are — wheat, rice, sugar and kerosene oil.

The social background of PDS dealers in Bihar is presented in Table 7.8. The total number of PDS dealers is 42,059 in 2016. The social groups accounting for major shares in PDS outlets are — backward castes (29.3 percent), general castes (19.4 percent), scheduled castes (16.4 percent) and Ex-Army Personnel (10.6 percent). These four categories together account for three-fourths of the PDS outlets. The distribution of PDS dealers by their social background in different districts is presented in Table A 7.4 (Appendix). It is also observed that the share of backward castes, extremely backward castes and scheduled castes among the PDS dealers is substantial in all the districts.

**Table 7.8 : Social Background of PDS Dealers**

Social Background of PDS Dealers	No of PDS Outlets			Percentage Share		
	2014	2015	2016	2014	2015	2016
Scheduled Caste	6857	6891	6905	16.2	16.4	16.4
Scheduled tribes	323	327	331	0.8	0.8	0.8
Backward Caste	12445	12463	12337	29.3	29.6	29.3
Extremely Backward Caste	3068	3109	3203	7.2	7.4	7.6
Minority	3036	2812	2806	7.2	6.7	6.7
Women	3387	3361	3344	8.0	8.0	8.0
Women Self Help Groups	202	209	204	0.5	0.5	0.5
Other Self Help Groups	118	105	102	0.3	0.2	0.2
Co-operative Society (Ex-Army Personnel)	4579	4494	4469	10.8	10.7	10.6
Handicapped	177	180	178	0.4	0.4	0.4
General Castes	8259	8190	8180	19.5	19.4	19.4
Total	42451	42141	42059	100.0	100.0	100.0

Source : Department of Food and Consumer Protection, GOB

Although sugar and kerosene are also included, wheat and rice are relatively more important items under PDS. After the enactment of National Food Security Act, 2013, PDS is implemented under two schemes in Bihar — (1) Antyodaya – providing 35 kgs of foodgrains per month to Antyodaya households (21 kgs of rice and 14 kgs of wheat) and (2) Priority Household (PHH) Scheme — providing 5 kgs of foodgrains per month to each eligible beneficiary of a household (3 kgs of rice and 2 kgs of wheat). The operational details of the PDS in Bihar in last three years is presented in Table 7.9. As regards quantum of allotment, it was 10.6 lakh tonnes for wheat in 2013-14, which was nearly doubled (21.0 lakh tonnes) in 2015-16. For rice, the increase was even higher, from 12.9 tonnes in 2013-14 to 29.7 lakh tonnes in 2015-16, implying an increase of about 130 percent. Because of the immense demand for benefits under PDS, the lifting percentage was close to 100 percent for both wheat and rice, in all the three years.

**Table 7.9 : Allotment and Lifting of Rice and Wheat under PDS in Bihar**

Year	Wheat			Rice		
	Allotment	Lifting	Lifting Percentage	Allotment	Lifting	Lifting Percentage
2013-14	10566	10021	94.8	13407	12919	96.4
2014-15	19660	18637	94.8	29489	27919	94.7
2015-16	20965	20536	98.0	31446	29704	94.5

Source : Department of Food and Consumer Protection, GOB

The district-wise information on allotment and lifting of wheat and rice is presented in Table A 7.5 (Appendix). The lifting percentages are uniformly high in nearly all the districts. The lifting percentage is below 90 percent only in Patna, Bhojpur and Bhagalpur for both wheat and rice.

### 7.3 Panchayati Raj Institutions

The ‘Panchayat’ system has been the backbone of rural economy in India for ages. Gandhiji had, thus, aptly remarked that the development process in India must begin at the bottom and every village ought to be a ‘republic’ with a Panchayat having its own powers. The basic philosophy of Panchayati Raj Institution (PRI) is that the villagers themselves should think, decide and act for their own collective well-being.

As per the 73rd constitutional amendment, Bihar Panchayati Raj Act, 2006 was passed to strengthen the three-tier panchayat system in the state. The three-tier PRIs in Bihar consist of — Gram Panchayat (GP) at the lowest level, Panchayat Samiti at the block level, and Zila Parishad at the district level. The chairperson of the Gram Panchayat, Panchayat Samiti and Zila Parishad are called Mukhiya, Pramukh and Adhyaksha respectively. Presently, there are 38 Zila Parishads, 534 Panchayat Samities, and 8391 Gram Panchayats in Bihar (Table 7.10). For election of members in each of the three-tiers, there is reservation for scheduled castes (16 percent) and extremely backward castes (20 percent). Secondly, within each caste category (general, extremely backward castes, and scheduled castes), there is reservation for women members (50 percent). The most recent election for the PRIs was held during April-May, 2016 when 2.16 lakh members were elected under the supervision of Bihar State Election Commission. An extensive training programme is being organised for the newly elected members of the PRIs and Gram Katchharies. For this, 248 state-level and 2123 district-level trainers have already been trained who imparted training in the months of July-September, 2016.

**Table 7.10 : Overview of Panchayati Raj Institutions in Bihar**

Item	No.	Item	No.
Zila Parishad	38	Gram Panchayat Secretary	3701
Panchayat Samiti	534	Nyaya Mitra	6947
Gram Panchayat	8391	Gram Kachahari Secretary	7474
Gram Panchayat Members	114733	Zila Panchayati Raj Officers	38
Panchayat Samiti Members	11497	Block Panchayti Raj Officers	528
Zila Parishad Members	1161		
Gram Kachahari Members	114733		

Source : Department of Panchayati Raj, GOB

To strengthen the PRIs, the state government has decided to construct Panchayat Sarkar Bhawans in all Gram Panchayats. At present, sanction for construction of 1435 Panchayat Sarkar Bhawans has been made, with an estimated cost of Rs. 1213.37 crore. Out of this, 637 Panchayat Sarkar Bhawans have already been constructed and 184 are on the verge of completion. Further, with the help of a loan amounting to US\$ 120 million (Rs. 817.59 crore), the state government has initiated Bihar Panchayat Strengthening Programme in selected number of districts, which aims to make the PRIs more inclusive and efficient. This programme is planned to be completed by June, 2019.

**Table 7.11 : Expenditure Level of PRIs**

(Rs. lakh)

Heads	2013-14 (Actual)	2014-15 ( Actual)	2015-16 ( Revised Estimate)
<b>Gram Panchayat</b>			
1. BRGF	38860	27821	0
2. RGPSA	0	0	5308
3. MMGY	15533	1084	100
4. Union Finance Commission Grants	73193	107105	229445
5. State Finance Commission Grants	61324	0	75307
6. Construction of Panchayat Sarkar Bhawan	0	36863	12400
7. Contingency Grant	0	0	1072
8. Payment and Allowance to GP members/ functionaries	163010	15383	28495
Total	351920	1188256	352127
<b>Panchayat Samiti</b>			
1. BRGF	11103	7949	0
2. RGPSA	0	0	502
3. Union Finance Commission Grants	20907	30662	3355
4. State Finance Commission Grants	13249	0	17306
5. Allowance to PS members	1614	1946	2286
Total	46873	40557	23449
<b>Zila Parishad</b>			
1. BRGF	5551	3975	0
2. RGPSA	0	0	400
4. Union Finance Commission Grants	10450	15287	1658
5. State Finance Commission Grants	6940	5026	8910
3. Allowance to ZP members	207	431	468
Total	23148	24719	11436

Note : BRGF = Backward Region Grant Fund, RGPSA = Rajiv Gandhi Panchayat Sashaktikaran Abhiyan, MMGY = Mukhya Mantri Gramoday Yojana

Source : Panchayati Raj Department, GOB

As regards financial base of the PRIs, the Fifth State Finance Commission (2015-16 to 2019-20) has made its recommendations. Under this recommendations, 2.75 percent of the actual total expenditure of the state and 8.50 percent of the State's Own Tax Revenue during the preceding financial year will be transferred each year to the PRIs. The distribution of the total transferred amount among the three tiers will be — Gram Panchayats (70 percent), Panchayat Samities (10 percent) and Zila Parishad (20 percent). Under this devolution scheme, a sum of Rs. 1081.16 crore has been sanctioned in 2016-17 as the first instalment.

The expenditure levels of the PRI's have been presented in Table 7.11. The source of funds for PRIs are many and the transfer from different source also varies greatly from year to year. As such, there is no definite trend on the level of expenditures of the PRIs. For example, the expenditure by the Gram Panchayats was Rs. 3519 crore in 2013-14, but it dropped to a low level of Rs. 1188 crore in 2014-15, and then substantially increased to Rs. 3521 crore in 2015-16. Such fluctuations in expenditure level is also observed for Panchayat Samities and Zila Parishads.

#### 7.4 Distribution of Homestead Land

Rural housing is a serious problem in Bihar, as in most other parts of India. The PMAY (Prime Minister Awas Yojana) of the central government takes care of the construction cost of the house for the rural poor, but many of those poor households do not have homestead land of their own to build a house. To address this challenge, the state government has been distributing 5 decimals of residential land to landless households, belonging to Mahadalits, other scheduled castes, scheduled tribes, extremely backward castes and backward castes. There were three schemes for this purpose — Mahadalit Vikas Yojana, Grihsthal Yojana and Tribal Sub-Plan. The details of these three programmes relating to the year 2015-16 are presented in Table 7.12. From the table, it is observed that 47.4 thousand landless households have been benefitted by the scheme for homestead land. The financial achievement has been the highest for Grihsthal Yojana (85.7 percent), followed by Mahadalit Vikas Yojana (52.7 percent). From 2015-16, these three schemes for providing homestead land have been merged into a single scheme of 'Abhiyan Basera'. A related scheme, called Sampark Path Yojana, is meant for improving the connectivity of villages. Under this scheme, 98 villages were provided with link roads in 2015-16.

**Table 7.12 : Budget Allocation, Expenditure and Physical Achievement for Distribution of Homestead Land (2015-16)**

Name of Scheme	Budget Allocation (Rs. lakh)	Expenditure (Rs. lakh)	Financial Achievement (Percentage)	Physical Achievement (No. of hhs.)
Mahadalit Vikas Yojana	2287.19	1240.64	52.7	40982
Grihsthal Yojana	672.18	576.29	85.7	4735
Tribal Sub-Plan	146.15	8.00	5.5	1637
Total	3015.52	1788.93	59.3	47354

Source : Department of Revenue and Land Reforms, GOB

The distribution of homestead land to Mahadalit families is one of the priorities of the state government. For this, the state government either acquires Gair Mazarua Khas land, or Gairmazrue Aam land, or under Bihar Priviledged Person Homestead Tenancy Act. In some cases, it also purchases Raiyati land, or acquire land through other means. The details of this scheme for 2014-15 and 2015-16 are presented in Table 7.13. It is observed from the table that this scheme of providing homestead land to landless Mahadalit families has been implemented in Bihar very satisfactorily and, during the two years (2014-15 and 2015-16), no less than 4.75 lakh Mahadalit households have been benefitted through the scheme.

**Table 7.13 : Details of the Scheme for Provision of Homestead Land to Mahadalit Households**

	No. of Mahadalit Household			
	Target	Achievement	Achievement Percentage	Area of land distributed (acres)
<b>Gair Mazarua Khas Land</b>				
2014-15	86224	87167	101.1	2938
2015-16	86158	88429	102.1	4533
<b>Gair Mazarua Aam Land</b>				
2014-15	47963	44347	92.5	1103
2015-16	47055	47454	100.8	1131
<b>Bihar Priviledged Person Homestead Tenancy Act</b>				
2014-15	56804	60207	106.0	1760
2015-16	58295	62108	106.5	1792
<b>Purchase of Raiyati Land</b>				
2014-15	52622	42324	80.4	1255
2015-16	48839	42619	87.3	1258
<b>Other Sources</b>				
2014-15	0	140	—	5
2015-16	0	140	—	5
<b>Total</b>				
2014-15	243613	234185	96.1	7061
2015-16	240705	240750	100.0	8718

Source : Department of Revenue and Land Reforms, GOB

The above welfare schemes are implemented by the Department of Revenue and Land Reforms. To improve land administration, this Department has also undertaken the following important steps :

- (a) Under the provision of Bihar Special Surveys and Settlement Act, 2011, the Department has already done aerial photography of all the 38 districts. The work is under progress for the spot verification of the records. The cadastral maps of all the 38 districts and revisional maps of 28 districts have been digitised.
- (b) The Circle office is the main source of land records. It is, therefore, necessary to maintain connectivity among Circle offices and Sub-divisional offices. To ensure such connectivity, the state government has employed Data Entry Operators in 457 out of 534 Circle offices. Further, networking facilities have been provided to 531 Circle offices.

## 7.5 Disaster Management

Bihar is vulnerable to a number of natural as well as man-made disasters in varying degrees. These include — flood, drought, earthquake, cyclones, heat waves, cold waves, fire and attack by extremists. Out of 38 districts in Bihar, 28 are flood prone. As regards earthquake, 8 districts fall in Seismic Zone V, 24 in Zone IV and 6 in Zone III. In recent years, there has been an increase in the frequency of disasters and also in their intensity. Thus, efficient management of disasters is one of the priority areas of the state government.

**Table 7.14 : Funds Allotted for Floods and Cyclones**

(Rs. lakh)

Programmes	2011-12	2012-13	2013-14	2014-15	2015-16
Relief & Rescue instruments	—	—	761.0	1397.8	0.0
Supply of Dry Food	10279.2	1475.0	29357.0	12200.3	6115.3
Cash Dole Assistance	2976.7	1053.0	18792.9	9945.3	5266.8
Clothes & Utensils Distribution	39.0	171.7	109.1	334.0	7615.5
Supply of Drinking Water	35.5	59.7	41.8	—	24.1
Repair of Road & Bridges	—	260.2	280.2	—	14.5
Evacuation Operation	1774.4	2061.4	3712.8	1830.3	1660.6
Repair of Public Buildings	—	197.9	103.1	471.3	4441.7
Agricultural Inputs	1021.2	46.7	12116.2	3981.6	100670.8
Repair of Boats	684.3	584.7	713.5	633.0	541.4
Repair of Embankments and Irrigation system	—	—	—	500.0	1416.2
Human Medicines	21.9	0.0	—	—	0.0
Assistance for Flood Accidents	275.0	107.1	349.6	363.4	287.4
Assistance for Natural Calamity Accidents (except flood)	—	—	—	—	831.1
Total	17107.2	6017.5	66337.1	31657.0	128885.5

Source: Department of Disaster Management, GoB

The financial burden on the state government for disaster management was extremely high in 2015-16 when it had to spend Rs. 1289 crore for various programmes (Table 7.14). A major part of this expenditure was for agricultural inputs (Rs. 1007 crore). During the last five years, the second highest expenditure was in 2013-14 (Rs. 663 crore) and the lowest in 2012-13 (Rs. 60 crore). For efficient disaster management, the state government has prepared a 15 year Disaster Risk Reduction (DRR) road map, following the Sendai Framework agreement, and Bihar is the first among all the Indian states to complete the exercise. The state government has also signed a MOU with the Asian Disaster Preparedness Centre (ADPC) at Bangkok for efficient disaster management.

## **7.6 Environment**

The protection of environment is a crucial requirement of any sustainable growth strategy. The growth of population, urbanisation and anthropogenic development employing energy-intensive technologies have resulted in huge pollutants into the environment. More recently, the environmental protection has assumed special importance because of the accumulation of evidence on global warming and the associated climate change.

Bihar has 9360 thousand hectares of geographical area, out of which forests cover only 622 thousand hectares (6.6 percent). Among the districts, Kaimur, Jamui, Munger and West Champaran have substantial forest area. Valmiki Nagar National Park in West Champaran district is well known as a Tiger Reserve. The forests provide a number of economic and environmental services, including timber and non-timber forest products, protection of other natural resources, and contribution to local climate control. The Department of Forest has taken the following steps to protect the environment in the state :

- (a) The state government has set a target to bring 15 percent of its geographical area under green cover by 2017. For this extensive plantations are going on the sides of roads, canals and rivers. By December, 2016, 387.44 lakh plants including agro-forestry have been planted.
- (b) The state government has established a State Forestry Training Institute at Gaya on 6.5 acres of land. This was done with the assistance from Japan International Cooperation Agency (JICA).
- (c) At Piparghatti near Bodh Gaya, a bio-diversity park is being developed, called 'Buddha Vatika'. On 23 hectares of land, this park will have all the indigenous tree species of Bihar. A second bio-diversity park is also being developed on 163 acres of land in Kusiargaon in Araria district.
- (d) For the prevention and control of water pollution, the Pollution Control Board is monitoring the water quality in 21 locations in the river Ganga and at 45 locations in its tributaries and ponds. The state government is also ensuring Effluent Treatment Plants in all industrial units.



## APPENDIX

**Table A 7.1 : State-wise Poverty Ratios in 2011-12**

Population below poverty line (Percentages)	Rural poverty	Urban poverty	Total poverty
Less than 10	Goa, Punjab, Himachal Pradesh, Kerala, Sikkim	Goa, Sikkim, Himachal Pradesh, J&K, Mizoram, Kerala, Andhra Pradesh, Tamil Nadu, Meghalaya, Maharashtra, Punjab, Tripura	Goa, Kerala, Himachal Pradesh, Sikkim, Punjab, Andhra Pradesh
10 to 20	Andhra Pradesh, Haryana, Meghalaya, Rajasthan, J&K, Nagaland, Tripura, Tamil Nadu, Uttarakhand	Gujarat, Haryana, Uttarakhand, Rajasthan, West Bengal, Karnataka, Nagaland, Odisha	J&K, Haryana, Uttarakhand, Tamil Nadu, Meghalaya, Tripura, Rajasthan, Gujarat, Maharashtra, Nagaland, West Bengal
20 to 30	Gujarat, West Bengal, Maharashtra, Karnataka	Arunachal Pradesh, Assam, Madhya Pradesh, Chhattisgarh, Jharkhand, Uttar Pradesh	Mizoram, Karnataka, Uttar Pradesh
30 to 40	Arunachal Pradesh, Manipur, Madhya Pradesh, Assam, Uttar Pradesh, Bihar, Odisha, Mizoram	Bihar, Manipur	Madhya Pradesh, Assam, Odisha, Bihar, Arunachal Pradesh, Manipur, Jharkhand, Chhattisgarh
Above 40	Jharkhand, Chhattisgarh		

Source : Planning Commission, GoI

**Table A 7.2 : District-wise Progress under MGNREGS**

Districts	No. of households issued jobcards (lakh)			Percentage share of SC households among households with jobcards			Percentage of households with jobcards demanding employment		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Patna	5.40	4.94	4.99	42.6	25.54	0.00	14.43	0.00	0.00
Nalanda	4.08	3.82	4.01	46.00	37.84	10.50	13.00	10.50	12.24
Bhojpur	3.43	3.19	3.26	44.94	35.10	9.84	19.96	9.84	9.60
Buxar	2.36	2.35	2.63	28.54	32.17	15.27	19.61	15.27	26.37
Rohtas	3.78	3.42	3.51	48.95	32.79	15.87	19.94	5.87	13.05
Kaimur	2.10	1.99	2.06	43.97	39.58	15.82	18.52	15.82	17.88
Gaya	5.98	5.17	5.36	66.00	57.07	15.84	21.07	15.84	8.61
Jehanabad	1.22	1.32	1.38	43.80	32.18	13.45	18.84	13.45	23.56
Arwal	0.96	0.92	0.97	41.55	33.24	13.99	15.06	13.99	22.47
Nawada	3.36	3.59	3.83	29.60	30.86	12.77	23.76	2.77	18.66
Aurangabad	3.15	3.22	3.36	42.24	42.77	13.93	22.28	13.93	15.82
Saran	4.76	4.55	4.68	48.61	24.08	10.59	17.01	10.59	12.87
Siwan	4.10	2.88	2.94	25.95	19.04	9.64	9.65	9.64	12.26
Gopalganj	3.40	3.36	3.44	20.56	20.23	10.76	19.37	10.76	11.70
W. Champaran	4.38	4.37	4.46	35.01	19.04	7.56	34.57	7.56	11.70
E. Champaran	6.23	5.97	6.12	19.50	19.68	7.85	14.83	7.85	14.14
Muzaffarpur	6.50	5.86	5.94	24.11	23.98	7.82	12.82	7.82	6.65
Sitamarhi	4.30	4.22	4.33	35.95	18.23	18.72	22.48	18.72	17.53
Sheohar	0.87	0.77	0.84	22.31	22.46	16.05	25.10	16.05	36.93
Vaishali	5.24	5.09	5.36	46.63	33.73	5.24	8.58	5.24	9.19
Darbhanga	4.67	4.73	4.8	30.42	27.42	9.79	9.91	9.79	11.58
Madhubani	5.39	4.87	5.03	23.88	22.91	14.39	14.67	14.39	12.59
Samastipur	5.33	4.43	4.65	49.46	30.95	11.06	9.79	11.06	15.52
Begusarai	3.11	3.00	3.13	23.92	23.48	12.52	19.40	23.09	11.05
Munger	1.81	1.76	1.83	19.26	17.02	7.36	8.27	16.64	13.11
Sheikhpura	0.96	0.9	0.98	47.28	38.70	12.92	23.49	37.3	18.45
Lakhisarai	1.45	1.46	1.55	24.25	23.86	11.42	16.21	23.56	18.03
Jamui	2.44	2.37	2.55	31.54	26.78	17.21	26.3	25.57	26.71
Khagaria	2.02	1.64	1.77	33.07	26.09	15.86	15.28	25.28	11.56
Bhagalpur	3.62	3.71	3.85	23.31	13.70	9.53	12.75	9.53	13.19
Banka	3.01	2.61	2.81	26.27	16.90	13.66	20.90	13.66	21.30
Saharsa	3.09	3.2	3.38	23.58	23.30	13.47	22.59	13.47	26.58
Supaul	2.90	2.93	3.04	25.16	23.32	11.59	17.50	11.59	17.33
Madhepura	3.02	2.93	3.23	27.44	26.79	14.11	20.39	14.11	25.67
Purnea	4.49	4.18	4.41	23.65	17.89	11.54	20.81	11.54	16.75
Kishanganj	2.52	2.35	2.45	12.52	10.63	13.11	15.62	13.11	13.73
Araria	4.41	4.02	4.18	29.68	18.04	11.94	12.43	11.94	19.92
Katihar	2.98	4.38	4.58	15.96	16.18	21.49	35.73	21.49	18.66
<b>Bihar</b>	<b>132.82</b>	<b>126.45</b>	<b>131.69</b>	<b>33.53</b>	<b>26.25</b>	<b>11.65</b>	<b>17.67</b>	<b>11.65</b>	<b>14.61</b>

Source : Department of Rural Development, GOB

(Contd...)

**Table A 7.2 : District-wise Progress under MGNREGS (Contd.)**

Districts	Household getting 100 days of employment as percentage those obtaining			Person days of employment generated (lakh)			Percentage share of women in total employment generated		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Patna	3.21	0.00	0.00	28.24	0.00	0.00	35.08	0.00	0.00
Nalanda	9.45	9.28	5.17	25.19	17.93	18.44	39.18	43.69	45.81
Bhojpur	2.19	4.97	3.64	13.77	8.66	8.19	25.75	26.34	30.63
Buxar	6.63	4.46	8.71	19.83	10.08	29.68	18.45	29.38	29.7
Rohtas	1.78	1.76	2.19	23.86	13.41	11.63	19.03	21.02	25.19
Kaimur	7.7	7.31	2.66	18.25	10.61	11.92	19.54	23.76	29.4
Gaya	7.54	3.59	0.31	73.75	24.47	10.16	39.46	46.22	53.6
Jehanabad	5.5	5.68	12.01	8.03	5.22	15.35	37.98	41.91	43.4
Arwal	4.79	1.19	2.43	4.95	2.33	6.45	33.94	33.79	40.5
Nawada	1.94	1.28	3.47	22.43	10.68	26.67	41.94	46.62	50.4
Aurangabad	9.47	4.76	4.54	28.23	14.14	21.01	25.61	29.38	32.32
Saran	7.87	1.96	5.64	31.82	9.49	25.11	22.17	26.9	21.21
Siwan	5.07	0.91	5.76	15.95	5.25	11.71	21.87	24.51	26.44
Gopalganj	8.54	2.14	2.2	26.77	8.92	12.31	31.41	33.87	27.76
W. Champaran	4.17	6.18	2.15	39.34	11.94	18.09	30.96	30.23	32.19
E. Champaran	6.16	5.25	3.81	40.99	16.69	34.3	32.35	30.75	32.79
Muzaffarpur	4.67	1.98	2.25	32.44	11.22	12.3	33.69	34.05	36.64
Sitamarhi	4.91	0.62	2.16	26.54	12.64	20.53	34.09	38.59	41.76
Sheohar	3.84	1.28	5.52	8.66	3.32	15.32	63.34	46.36	46.13
Vaishali	6.75	2.11	2.98	17.05	6.21	16.09	32.32	35.18	43.85
Darbhanga	0.84	2.29	3.81	14.69	12.55	18.84	41.29	47.35	47.58
Madhubani	2.54	2.01	2.21	18.82	14.11	21.47	40.63	42.55	48.48
Samastipur	3.82	4.51	4.77	25.36	13.27	26.9	37.83	42.43	45.76
Begusarai	4.3	3.95	2.62	21.88	10.45	9.36	56.9	57.92	53.78
Munger	1.26	0.99	5.79	3.74	2.23	8.19	27.31	32.17	39.27
Sheikhpura	4.31	1.55	4.29	9.48	2.79	7.01	40.98	41.91	45.23
Lakhisarai	5.12	6.17	5.19	9.04	5.17	11.92	38.2	42.13	43.9
Jamui	9.19	3.24	5.1	31.77	13.69	26.05	39.28	40.54	43.75
Khagaria	2.16	0.59	0.31	10.22	3.21	4.16	41.85	44.59	53.49
Bhagalpur	7.27	6.3	4.85	18.78	9.59	17.44	28.23	32.66	39.25
Banka	5.53	2.53	4.02	21.74	6.39	19.26	35.3	33.07	42.25
Saharsa	1.52	0.72	3.7	22.04	10.98	39.04	47.18	46.66	48.05
Supaul	4.03	1.87	3.46	17.81	6.81	18.98	36.26	36.31	42.85
Madhepura	9.38	1.62	5.24	24.13	9.34	34.79	32.99	41.33	48.57
Purnea	1.85	0.57	1.95	27.11	6.56	24.49	35.89	37.23	46.69
Kishanganj	3.22	0.94	2.98	14.81	4.03	11.5	37.85	29.05	39.06
Araria	2.83	0.78	3.3	16.99	5.9	21.62	27.46	32.1	41.08
Katihar	2.28	1.53	2.36	31.15	12.32	25.51	39.74	39.47	45.73
<b>Bihar</b>	<b>4.82</b>	<b>2.98</b>	<b>3.9</b>	<b>845.65</b>	<b>352.6</b>	<b>671.78</b>	<b>34.35</b>	<b>37.32</b>	<b>40.84</b>

Source: Department of Rural Development, GOB

(Concluded)

**Table A 7.3 : District-wise Financial Progress under MGNREGS**

Districts	Fund available (Rs. lakh)	Fund utilised (Rs. lakh)	Percentage of utilisation	Fund available (Rs. lakh)	Fund utilised (Rs. lakh)	Percentage of utilisation	Fund available (Rs. lakh)	Fund utilised (Rs. lakh)	Percentage of utilisation
	2013-14			2014-15			2015-16		
Patna	11853.06	8862.71	74.8	9202.19	4749.13	51.61	4457.27	2009.1	45.07
Nalanda	6566.57	5450.92	83	4179.27	3697.54	88.47	4961.62	4481.63	90.33
Bhojpur	4967.73	4015.12	80.8	3314.39	2669.81	80.55	3122	2717.44	87.04
Buxar	6637.79	6044.22	91.1	3579.49	3037.28	84.85	8217.59	7703.5	93.74
Rohtas	6960.18	5850.29	84.1	3827.8	2961.3	77.36	3475.44	2807.62	80.78
Kaimur	4835.37	4140.54	85.6	2485.55	2049.17	82.44	3306.56	2882.12	87.16
Gaya	12581.51	10565.25	84	8826.93	6733.37	76.28	3991.61	1988.99	49.83
Jehanabad	2433.85	2043.24	84	2014.53	1751.1	86.92	4027.96	3759.45	93.33
Arwal	1218.62	869.81	71.4	755.25	613.47	81.23	1237.38	988.65	79.9
Nawada	6126.21	5763.42	94.1	3553.89	3407	95.87	7403.77	7260.47	98.06
Aurangabad	7963.25	6964.95	87.5	4737.02	3879.2	81.89	5602.5	5207.79	92.95
Saran	8208.64	7565.55	92.2	3732.36	2776.46	74.39	7484.76	6819.38	91.11
Siwan	6138.8	4198.52	68.4	3367.79	2308.76	68.55	3580.19	2517.24	70.31
Gopalganj	6080.87	5099.57	83.9	3487.48	2443.22	70.06	3350.8	2309.34	68.92
W. Champaran	10310.79	9102.82	88.3	4264.73	3274.29	76.78	4771.12	4078.71	85.49
E. Champaran	13863.29	12395.14	89.4	7282.04	6155.51	84.53	9562.33	8500.29	88.89
Muzaffarpur	10209.51	7853.13	76.9	6028.22	3504.54	58.14	5042.78	2518.3	49.94
Sitamarhi	7097.75	5331.33	75.1	5569.45	4384.22	78.72	5816.75	4622.41	79.47
Sheohar	3011.25	2400.19	79.7	1774.1	1289.89	72.71	9745.48	3107.54	31.89
Vaishali	5744.74	4265.81	74.3	3179.57	2324.94	73.12	3955.96	3295.94	83.32
Darbhanga	5609.34	4165.53	74.3	5090.59	3793.71	74.52	5089.24	3792.42	74.52
Madhubani	6828	5144.51	75.3	3604.73	2824.22	78.35	5203.86	4730.53	90.9
Samastipur	9194.47	6881.9	74.8	4913.36	3675.71	74.81	8306.25	7159.95	86.2
Begusarai	7047.15	5772.54	81.9	5540.03	4638.19	83.72	6557.46	6003.66	91.55
Munger	1554.41	1179.81	75.9	1295.68	945.36	72.96	2619.51	2469.06	94.26
Sheikhpura	2356.33	2153.83	91.4	887.17	808.08	91.09	1683.04	1649.57	98.01
Lakhisarai	3355.21	2910.39	86.7	1970.27	1784.81	90.59	3436.04	3274.4	95.3
Jamui	7789.22	6120.78	78.6	3162.38	3029.62	95.8	6803.48	6676.5	98.13
Khagaria	3020.05	2643.87	87.5	1653.59	1394.54	84.33	1019.56	811.82	79.62
Bhagalpur	7594.9	5678.26	74.8	4075.77	3446.07	84.55	4892.61	4535.23	92.7
Banka	6508.8	5968.6	91.7	2735.15	2216.97	81.05	4375.11	3903.19	89.21
Saharsa	4284.76	3652.68	85.2	4660.39	4347.44	93.28	6654.82	6377	95.83
Supaul	6134.89	3387.29	55.2	4666.8	2497.91	53.53	5805.13	3750.25	64.6
Madhepura	5857.97	5170.86	88.3	2701.95	2396.64	88.7	8226.88	7894.32	95.96
Purnea	8651.97	6931.62	80.1	4411.22	3377.9	76.58	6131.96	5116.32	83.44
Kishanganj	4659.4	4152.36	89.1	2213.29	1683.09	76.04	2380.07	1896.88	79.7
Araria	5605.59	3973.78	70.9	4100.05	2773.44	67.64	6280.66	5023.71	79.99
Katihar	9315.09	8452.63	90.7	4797.88	4452.59	92.8	7483.49	6762.6	90.37
<b>Bihar</b>	<b>248177.33</b>	<b>203123.77</b>	<b>81.8</b>	<b>189194.09</b>	<b>115091.53</b>	<b>60.83</b>	<b>198010.61</b>	<b>162439.11</b>	<b>82.04</b>

Source : Department of Rural Development, GOB

**Table A 7.4 : District-wise Distribution of PDS Dealers by Their Social Background in Bihar**

District	Number of Dealers	Percentage of Dealers belonging to							
		SC/ ST	BC/ EBC	Minority	Women	Women / Other SHG	Helper Samiti/ PACS/ Samiti of Ex-Army Personnel	General	Total
Patna	2554	17.4	46.6	2.7	10.0	1.3	6.8	15.2	100.0
Nalanda	1196	14.7	41.7	4.0	9.7	2.7	15.2	12.0	100.0
Bhojpur	1280	13.4	40.5	3.5	5.9	0.9	9.8	25.9	100.0
Buxar	741	20.8	33.9	3.0	5.8	2.0	14.7	19.8	100.0
Rohtas	991	22.1	36.7	5.9	5.9	1.6	11.4	16.4	100.0
Kaimur	615	24.1	39.7	6.8	8.6	0.0	4.4	16.4	100.0
Gaya	1869	30.7	32.4	5.0	5.7	2.0	10.2	14.0	100.0
Jehanabad	483	17.6	29.8	4.3	8.7	0.8	14.7	24.0	100.0
Arwal	327	27.5	29.1	4.3	5.2	0.3	19.9	13.8	100.0
Nawada	900	15.3	34.2	4.6	10.8	1.0	13.2	20.9	100.0
Aurangabad	1163	18.1	34.6	5.3	4.3	0.3	10.7	26.8	100.0
Saran	2415	11.8	31.5	2.4	15.9	0.5	10.6	27.4	100.0
Siwan	1557	13.2	36.5	8.2	5.8	0.6	6.6	29.1	100.0
Gopalganj	1190	13.9	28.7	2.8	6.9	0.3	16.1	31.4	100.0
W. Champaran	1945	20.4	31.3	12.0	6.3	0.7	12.4	16.9	100.0
E. Champaran	2169	13.2	38.1	9.0	5.1	0.9	9.6	24.0	100.0
Muzaffarpur	1976	18.2	30.9	4.0	9.1	1.6	11.3	24.9	100.0
Sitamarhi	954	17.3	42.3	6.8	6.7	2.3	11.3	13.2	100.0
Sheohar	276	13.4	30.4	4.7	6.5	1.1	15.6	28.3	100.0
Vaishali	1451	15.5	38.7	1.7	6.9	1.4	14.4	21.4	100.0
Darbhanga	1241	11.5	31.8	11.1	9.6	1.0	8.1	26.9	100.0
Madhubani	1539	19.8	36.6	7.3	5.3	1.2	11.8	17.9	100.0
Samastipur	1524	19.8	35.9	2.4	5.1	0.4	11.9	24.7	100.0
Begusarai	1021	27.3	27.3	4.3	11.9	0.3	4.3	24.5	100.0
Munger	584	8.4	48.1	5.7	9.8	0.5	12.0	15.6	100.0
Sheikhpura	289	16.6	36.3	2.4	6.6	0.0	12.5	25.6	100.0
Lakhisarai	388	11.3	33.8	2.6	10.3	2.6	10.6	28.9	100.0
Jamui	759	19.8	34.3	3.4	4.3	0.3	13.0	24.9	100.0
Khagaria	591	16.8	52.1	3.4	9.6	4.1	5.6	8.5	100.0
Bhagalpur	1320	15.0	46.1	10.4	7.3	1.1	9.2	10.8	100.0
Banka	792	15.3	46.2	7.8	8.7	3.9	4.7	13.4	100.0
Saharsa	711	17.0	40.4	8.9	4.6	1.5	15.6	12.0	100.0
Supaul	714	11.8	46.8	8.8	4.2	0.0	15.1	13.3	100.0
Madhepura	586	14.0	48.0	4.9	7.2	0.2	16.9	8.9	100.0
Purnea	1154	18.6	36.1	16.2	9.7	3.5	5.5	10.3	100.0
Kishanganj	590	15.1	38.5	16.1	13.4	0.7	8.1	8.1	100.0
Araria	1182	15.7	31.5	24.5	14.7	0.1	6.9	6.7	100.0
Katihar	1022	18.5	38.3	10.7	3.6	0.1	13.0	15.9	100.0
<b>Bihar</b>	<b>42059</b>	<b>17.2</b>	<b>36.9</b>	<b>6.7</b>	<b>8.0</b>	<b>1.2</b>	<b>10.6</b>	<b>19.4</b>	<b>100.0</b>

Source : Department of Food and Consumer Protection, GOB

**Table A 7.5 : District-wise Allotment and Lifting of Wheat and Rice under NFSA during (2015-16)**

('000 qntrs)

Districts	Wheat			Rice		
	Allotment	Lifting	Lifting Percentage	Allotment	Lifting	Lifting Percentage
Patna	1094	863	78.9	1641	1150	70.1
Nalanda	533	533	100.0	800	786	98.2
Bhojpur	464	412	88.7	697	568	81.5
Buxar	230	223	96.9	345	342	99.2
Rohtas	448	448	100.0	672	672	100.0
Kaimur	246	246	100.0	369	366	99.2
Gaya	788	788	100.0	1181	1181	100.0
Jehanabad	175	175	100.0	263	262	99.5
Arwal	132	132	100.0	198	198	100.0
Nawada	419	419	100.0	629	629	100.0
Aurangabad	436	436	100.0	654	654	100.0
Saran	679	679	99.9	1017	1006	99.0
Siwan	580	580	100.0	870	847	97.4
Gopalganj	430	430	100.0	644	644	100.0
W. Champaran	808	808	100.0	1212	1206	99.5
E. Champaran	1061	1061	100.0	1591	1568	98.5
Muzaffarpur	977	975	99.8	1465	1373	93.7
Sitamarhi	748	748	100.0	1122	1060	94.5
Sheohar	140	139	99.1	210	210	99.7
Vaishali	755	755	100.0	1132	972	85.8
Darbhanga	918	918	100.0	1378	1303	94.6
Madhubani	1025	1024	99.9	1537	1492	97.1
Samastipur	983	983	100.0	1475	1361	92.2
Begusarai	669	669	100.0	1004	959	95.6
Munger	272	272	100.0	409	396	96.8
Sheikhpura	114	114	100.0	171	160	93.2
Lakhisarai	183	181	99.0	275	259	94.2
Jamui	354	343	97.1	530	514	97.0
Khagaria	392	389	99.3	588	528	89.9
Bhagalpur	592	529	89.4	888	785	88.4
Banka	441	441	100.0	662	621	93.7
Saharsa	444	415	93.5	665	619	93.0
Supaul	492	491	99.9	738	737	99.9
Madhepura	453	452	99.7	680	678	99.7
Purnea	730	730	100.0	1096	1082	98.7
Kishanganj	396	394	99.4	594	557	93.8
Araria	689	665	96.6	1034	975	94.3
Katihar	676	676	100.0	1013	988	97.5
<b>Bihar</b>	<b>20965</b>	<b>20536</b>	<b>98.0</b>	<b>31446</b>	<b>29704</b>	<b>94.5</b>

Source : Department of Food and Consumer Protection, GOB

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## CHAPTER - IX

### BANKING AND ALLIED SECTORS

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Falling fiscal and current account deficits, reduced inflationary pressure and depressed international petroleum prices together helped boost the growth of Indian economy during 2015-16, despite somewhat depressing performance of the global economy. Foreign direct investment (FDI) recorded its highest annual net inflow in 2015-16. Reduced inflation and macroeconomic performance led to moderate easing of the interest rates. After two successive droughts, agriculture sector posted modest growth. On the downside, growth of industrial output slowed down compared to the previous year, and Non-Performing Assets (NPA) of commercial banks continued to remain high. To correct the deterioration in banks' balance sheets, the Reserve Bank of India (RBI) had undertaken the asset quality review last year. It led to some marginal improvement in the overall stressed assets ratio by the fiscal end, compared to its level a year ago; however, the profitability of banks was affected by provisioning requirements. Continuing efforts are needed to cleanse the banking system and enable credit to flow to productive sectors. The recapitalisation of stressed banks still remain a very serious issue.

The financial sector has seen two major reforms during the year. A new monetary policy framework to be operated by RBI was agreed between the RBI and the Government of India to meet the challenges of an increasingly complex economy, and to maintain price stability and growth. Under this new policy framework, inflation targeting became one of the objectives of RBI. It was given the target of 6 percent CPI inflation for 2016-17 and 4 percent thereafter with a leeway of 2 percent in either side. The second was the demonetisation launched with the express objective of controlling black money, and curbing terrorist funding and counterfeit notes. It may pull down the growth in the short term, but is likely to create conditions for long term growth and stability, including correction in prices of cash dependent sectors like real estates and fall in interest rates. It is also likely to nudge the country towards a cashless future.

The Public Sector Banks play a major role in financial inclusion, particularly in the rural sector. In the near absence of a capital market, the financial sector in a state like Bihar is almost entirely driven by the Scheduled Commercial Banks (SCB). Any adverse development in the international and national banking scenario affecting the SCBs is, therefore, bound to impact the financial sector in Bihar as well. The financial system is driven by the flow of finances through intermediaries like banks, insurance companies, securities firms, mutual funds, finance companies and pension funds, all the institutions that channel resources from those who save to

those who invest. However, the analysis of the financial sector in Bihar here will take into account only banking institutions in the state which include — (i) Banks that include Commercial Banks, Regional Rural Banks, Cooperative Banks as well as other Cooperative institutions, (ii) State financial institutions, and (iii) National financial institutions.

## 9.1 Banking Infrastructure

### Commercial Banks

Table 9.1 shows the number of commercial bank branches in Bihar from 2011 to 2016 and their location pattern. In March 2016, of the total of 6661 branches of commercial banks in Bihar, 55 percent were located in rural areas, compared to 60 percent in 2011. In comparison with a record 638 branches opened during 2013-14, the year 2015-16 saw only 364 new branches, with only 44 branches (12 percent) opened in rural areas, 224 branches (62 percent) in semi-urban areas, and 96 branches (26 percent) in urban areas. The growth in number of banks in 2015-16 had fallen to 5.8 percent, compared to 6.6 percent in 2014-15 and way below 12.1 percent recorded during 2013-14, which was the highest during the last six years.

**Table 9.1 : Distribution of Commercial Bank Branch Offices (2011-2016)**

Years (End March)	Total	Growth Rate	Percentage distribution of branches by location			
			Rural	Semi-urban	Urban	All
2011	4549	9.0	60.4	21.5	18.1	100.0
2012	4860	6.8	59.6	22.0	18.4	100.0
2013	5270	8.4	59.6	21.8	18.6	100.0
2014	5908	12.1	58.7	23.0	18.3	100.0
2015	6297	6.6	57.9	23.1	19.0	100.0
2016	6661	5.8	55.4	25.2	19.4	100.0

Source : State Level Bankers' Committee

As of March 2016, the private non-nationalised banks have 281 urban and semi-urban branches and only 20 rural branches. These banks obviously take advantage of the relatively higher purchasing power in the urban and semi-urban areas. Their location pattern does not serve the objective of financial inclusion.



From Table 9.2, it can be noted that Bihar accounted for only 4.8 percent of all the bank branches in the country in June 2016, though its share in country's population was about 8.6 percent. This share has nearly been the same over the past few years.

**Table 9.2 : Distribution of Branches of Commercial Banks among States (as on June, 2016)**

States	No. of Branches	Percentage share in all-India branches	Percentage share in all-India population	States	No. of Branches	Percentage share in all-India branches	Percentage share in all-India population
Andhra Pradesh	6084	4.8	7.0	Maharashtra	11284	9.0	9.3
<b>Bihar</b>	<b>6015</b>	<b>4.8</b>	<b>8.6</b>	Odisha	4280	3.4	6.0
Chhattisgarh	2179	1.7	2.1	Punjab	5791	4.6	2.3
Gujarat	6965	5.5	5.0	Rajasthan	6252	5.0	4.4
Haryana	4288	3.4	2.1	Tamil Nadu	9441	7.5	6.0
Himachal Pradesh	1439	1.1	0.5	Uttar Pradesh	15275	12.1	16.5
Jharkhand	2698	2.1	2.7	Uttarakhand	1852	1.5	0.8
Karnataka	9002	7.2	5.0	West Bengal	7073	5.6	3.5
Kerala	5981	4.8	2.8				
Madhya Pradesh	5815	4.6	6.0	<b>India</b>	<b>125863</b>	<b>100.0</b>	<b>100.0</b>

Source : Reserve Bank of India

### Cooperative Banks

The data for the State and District Central Cooperative Banks are shown in Table 9.3. It emerges from the table that the number of State Cooperative Banks in the country as a whole increased by 72 in 2015, after a contraction by 22 in 2014. Similarly, in Bihar, both the State Cooperative Banks as well as the District Central Cooperative Banks had experienced contraction in 2014, but expanded in 2015, with the number of State Cooperative Banks increasing from 11 to 12 and District Central Cooperative Banks from 277 to 312. The total number of Cooperative Bank branches in Bihar was 324 in 2015, compared to 288 in 2014.

**Table 9.3 : Number of Branches of State and District Central Cooperative Banks (As on March 31)**

State	State Cooperative Banks			District Central Cooperative Banks			Total		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Andhra Pradesh	37	36	37	577	334	611	614	370	648
<b>Bihar</b>	<b>12</b>	<b>11</b>	<b>12</b>	<b>311</b>	<b>277</b>	<b>312</b>	<b>323</b>	<b>288</b>	<b>324</b>
Gujarat	3	7	10	1247	1234	1313	1250	1241	1323
Haryana	14	13	14	621	604	621	635	617	635
Himachal Pradesh	197	190	214	205	219	255	402	409	469
Jharkhand	-	5	-	122	95	122	122	100	122
Karnataka	40	42	42	604	652	701	644	694	743
Kerala	24	20	21	703	701	751	727	721	772
Madhya Pradesh	25	25	25	856	838	856	881	863	881
Maharashtra	53	53	48	3710	3721	3750	3763	3774	3798
Odisha	15	14	15	339	315	338	354	329	353
Punjab	21	19	20	812	800	816	833	819	836
Rajasthan	17	16	17	444	425	453	461	441	470
Tamil Nadu	47	47	47	784	782	782	831	829	829
Uttar Pradesh	29	29	29	1385	1336	1394	1414	1365	1423
Uttarakhand	16	15	16	243	235	250	259	250	266
West Bengal	48	43	48	285	287	304	333	330	352
<b>India</b>	<b>1081</b>	<b>1059</b>	<b>1131</b>	<b>13655</b>	<b>13246</b>	<b>14060</b>	<b>14711</b>	<b>14305</b>	<b>15191</b>

Source : National Federation of State Cooperative Banks Ltd. (NAFSCOB)

### Regional Rural Banks (RRB)

With the promulgation of Regional Rural Banks (RRB) Act of 1976, the regional rural banks came into existence. With equity holdings by the central government, the concerned state governments and the sponsoring banks in the proportion of 50:15:35 respectively, the RRBs provide a multi-agency approach for agricultural and rural credit in India.

The data for RRBs in Bihar are shown in Table 9.4. At the end of September, 2016, Bihar had 2092 RRB branches; in September, 2015, the number was 2058. Of the three RRBs in Bihar, Uttar Bihar Kshetriya Gramin Bank alone accounted for almost half the total RRB branches in the state.

**Table 9.4 : Number of RRB Branches in Bihar (as on September, 2016)**

	Rural	Semi-Urban	Urban	Total
Madhya Bihar Gramin Bank	579	78	33	690
Bihar Kshetriya Gramin Bank	258	97	15	370
Uttar Bihar Kshetriya Gramin Bank	759	236	37	1032
<b>Total</b>	<b>1596</b>	<b>411</b>	<b>85</b>	<b>2092</b>

Source : State Level Bankers' Committee

The total rural deposits of all Scheduled Commercial Banks in Bihar stood at Rs 54,834 crore as of March 2015 (Table 9.5). Bihar accounted for about 6 percent of all rural deposits of the Scheduled Commercial Banks in the country; this ratio has remained unchanged during the recent years. Deposits in the savings bank constituted the bulk (64 percent) of the total rural deposits of Scheduled Commercial Banks in Bihar.

**Table 9.5 : Rural Deposits of Scheduled Commercial Banks by Type of Deposit (as on March, 2015)**

State	No. of Branches	Current		Savings		Term		Total	
		No. of Accounts (lakh)	Amount (Rs crore)	No. of Accounts (lakh)	Amount (Rs crore)	No. of Accounts (lakh)	Amount (Rs crore)	No. of Accounts (lakh)	Amount (Rs crore)
Andhra Pradesh	2,236	4.0	2,214	228.3	11,409	18.6	14,569	250.9	28,192
<b>Bihar</b>	<b>3,297</b>	<b>13.4</b>	<b>2,789</b>	<b>300.2</b>	<b>35,034</b>	<b>26.8</b>	<b>17,015</b>	<b>340.4</b>	<b>54,838</b>
Chhattisgarh	1,028	2.1	1,152	109.7	10,718	6.8	5,692	118.5	17,561
Gujarat	2,501	2.9	2,153	163.8	18,633	28.9	34,075	195.6	54,861
Haryana	1,610	6.4	1,444	81.9	13,392	7.4	12,499	95.8	27,335
Himachal Pradesh	1,091	6.0	1,609	53.9	11,942	19.2	21,875	79.0	35,426
Jharkhand	1,312	1.9	1,423	126.4	13,498	13.7	11,834	142.1	26,755
Karnataka	3,347	5.0	2,483	244.7	17,815	31.2	28,043	280.9	48,341
Kerala	453	0.7	362	32.3	4,231	5.2	7,699	38.2	12,292
Madhya Pradesh	2,283	4.0	2,253	220.8	15,257	17.3	13,245	242.2	30,755
Maharashtra	3,121	4.5	3,809	252.5	24,108	22.1	28,325	279.1	56,241
Odisha	2,348	2.9	2,105	217.5	23,350	25.1	18,000	245.5	43,455
Punjab	2,415	13.7	2,030	112.2	22,699	18.4	31,504	144.3	56,233
Rajasthan	2,624	6.3	1,393	185.2	18,085	16.9	15,184	208.4	34,662
Tamil Nadu	2,843	4.4	2,311	269.7	19,883	24.7	26,305	298.8	48,498
Uttar Pradesh	7,511	22.8	4,975	878.9	86,567	55.4	42,517	957.1	134,059
Uttarakhand	907	2.6	1,401	53.0	10,054	9.9	8,436	65.5	19,891
West Bengal	3,028	7.9	3,378	401.3	38,277	56.3	44,306	465.5	85,962
<b>All-India</b>	<b>48536</b>	<b>121.4</b>	<b>47,848</b>	<b>4,370.8</b>	<b>440,380</b>	<b>447.5</b>	<b>427,448</b>	<b>4,939.7</b>	<b>915,676</b>

Source : Basic Statistical Returns of Scheduled Commercial Banks in India, RBI

## Employees of Scheduled Commercial Banks

From Table 9.6, it can be seen that there were 44,643 bank employees in Bihar in March 2015, compared to 42,201 in March 2014. Out of them, 46.2 percent belonged to the category of officers, down from 46.7 percent in the previous year. Bihar accounted for only 3.5 percent of all the employees of Scheduled Commercial Banks in India in March, 2015. It is also seen from the table that females constitute 11.7 percent of the total bank employees in Bihar, much lower than 21.7 percent, as found in the all-India level.

**Table 9.6 : Distribution of Employees of SCBs (March, 2015)**

(Nos. `000)

State	Officers	Clerks	Sub-ordinates	Total	Number and percentage of Female Employees
Andhra Pradesh	26.1 (51.9)	16.2 (32.2)	8.0 (16)	50.3 (100.0)	10.5 (20.8)
<b>Bihar</b>	<b>20.6 (46.2)</b>	<b>15.7 (35.1)</b>	<b>8.4 (18.7)</b>	<b>44.6 (100.0)</b>	<b>5.2 (11.7)</b>
Chhattisgarh	9.0 (56.5)	4.8 (30.5)	2.1 (13)	15.8 (100.0)	2.7 (17.1)
Gujarat	41.0 (57.7)	20.1 (28.2)	10.0 (14.1)	71.1 (100.0)	11.5 (16.2)
Haryana	25.1 (60.5)	11.0 (26.5)	5.4 (13)	41.4 (100.0)	8.6 (20.8)
Himachal Pradesh	4.7 (45.8)	3.5 (33.8)	2.1 (20.4)	10.2 (100.0)	1.6 (15.5)
Jharkhand	11.0 (49.2)	7.3 (32.7)	4.0 (18.1)	22.3 (100.0)	3.9 (17.5)
Karnataka	49.0 (53.4)	29.7 (32.4)	13.1 (14.2)	91.9 (100.0)	25.4 (27.7)
Kerala	30.4 (52)	20.5 (35)	7.6 (12.9)	58.5 (100.0)	23.3 (39.8)
Madhya Pradesh	26.3 (53.3)	15.1 (30.5)	8.0 (16.2)	49.4 (100.0)	8.5 (17.1)
Maharashtra	138.2 (68.4)	42.7 (21.2)	21.0 (10.4)	202.0 (100.0)	55.2 (27.3)
Odisha	17.4 (51.5)	11.1 (32.7)	5.3 (15.8)	33.9 (100.0)	5.1 (15.2)
Punjab	29.9 (55.7)	15.4 (28.7)	8.3 (15.5)	53.7 (100.0)	10.6 (19.7)
Rajasthan	29.8 (55.5)	15.4 (28.7)	8.5 (15.8)	53.6 (100.0)	6.9 (12.8)
Tamil Nadu	56.2 (55.7)	33.0 (32.7)	11.7 (11.6)	100.8 (100.0)	29.7 (29.4)
Uttar Pradesh	64.4 (52)	38.8 (31.3)	20.7 (16.7)	123.8 (100.0)	16.6 (13.4)
Uttarakhand	7.1 (47.5)	5.1 (34.3)	2.7 (18.2)	14.9 (100.0)	2.6 (17.3)
West Bengal	42.5 (52)	24.3 (29.7)	15.0 (18.4)	81.8 (100.0)	11.9 (14.5)
<b>All India</b>	<b>730.0 (56.5)</b>	<b>376.6 (29.2)</b>	<b>185.0 (14.3)</b>	<b>1291.5 (100.0)</b>	<b>279.9 (21.7)</b>

Note : Figures in Parenthesis indicate row-wise percentage share.

Source : Basic Statistical Returns of Scheduled Commercial Banks in India

## 9.2 Deposits and Credits

### Per Capita Deposits and Credits of Scheduled Commercial Banks

Table 9.7 shows the deposits and credits of Scheduled Commercial Banks in major states of India in 2013-14 and 2014-15. From this table, it is seen that there has been a significant growth (13.9 percent) in the total deposits in Bihar in 2014-15 (increase of Rs 26,376 crore) over the previous year. Simultaneously, the credit in 2014-15 has also expanded by Rs 10,400 crore, implying a high growth of 16.7 percent, but much less than 25.6 percent growth witnessed in the previous year. Bihar's share in the total deposits of Scheduled Commercial Banks remained the same (2.4 percent) in 2013-14 and 2014-15, and its share of credit improved marginally from 1.0 percent to 1.1 percent in this period. But, it is to be noted that the total bank credit in Bihar accounts for just about 1 percent of the total bank credit in the country, while Bihar accounts for nearly 8 percent of India's population.

**Table 9.7 : State-wise Deposits and Credit of Scheduled Commercial Banks in India (March 31)**

States	Deposits (Rs. crore)		Credits (Rs. crore)		CD-Ratio (2014-15)
	2013-14	2014-15	2013-14	2014-15	
Andhra Pradesh	440999 (5.5)	188628 (2.1)	490843 (7.8)	198614 (2.9)	105.3
<b>Bihar</b>	<b>190434 (2.4)</b>	<b>216810 (2.4)</b>	<b>62462 (1.0)</b>	<b>72862 (1.1)</b>	<b>32.8</b>
Gujarat	414792 (5.2)	477758 (5.4)	309819 (4.9)	347117 (5.0)	74.7
Haryana	193315 (2.4)	222685 (2.5)	150886 (2.4)	168893 (2.5)	78.0
Himachal Pradesh	51993 (0.6)	59876 (0.7)	18598 (0.3)	21115 (0.3)	35.8
Jharkhand	120341 (1.5)	142111 (1.6)	38248 (0.6)	42029 (0.6)	31.8
Karnataka	536909 (6.8)	634292 (7.1)	381438 (6.1)	429225 (6.2)	71.0
Kerala	281593 (3.5)	328399 (3.7)	190557 (3.0)	212161 (3.1)	67.7
Madhya Pradesh	224910 (2.8)	279342 (3.1)	135788 (2.2)	153034 (2.2)	60.4
Maharashtra	2028845 (25.5)	2150010 (24.1)	1821186 (29.0)	1977298 (28.8)	89.8
Odisha	164629 (2.1)	190074 (2.1)	73343 (1.2)	79696 (1.2)	44.6
Punjab	230021 (2.9)	261972 (2.9)	182003 (2.9)	196644 (2.89)	79.1
Rajasthan	201257 (2.5)	235479 (2.6)	175331 (2.8)	202956 (3.0)	87.1
Tamil Nadu	499974 (6.3)	545317 (6.1)	608742 (9.7)	649164 (9.4)	121.8
Uttar Pradesh	597679 (7.5)	672530 (7.5)	266630 (4.2)	305463 (4.4)	44.6
West Bengal	480108 (6.0)	553692 (6.2)	295914 (4.7)	320091 (4.6)	61.6
<b>India</b>	<b>7955721 (100.0)</b>	<b>8922111 (100.0)</b>	<b>6282082 (100.0)</b>	<b>6878473 (100.0)</b>	<b>79.0</b>

Note : Figures in Parenthesis indicate share of the states

Source : Statistical Tables Relating to Banks in India, 2015-16, RBI

From Table 9.7, one can also note that, as in the previous years, the Credit-Deposit (CD) ratio of Scheduled Commercial Banks in Bihar in 2014-15 was the lowest (32.8 percent) among all the major states, except Jharkhand (31.8 percent). It was nowhere near the national average of 79.0

percent, not to mention the high CD ratios of Tamil Nadu (121.8 percent), Andhra Pradesh (105.3 percent), Rajasthan (87.1 percent) or Maharashtra (89.8 percent).

The CD ratios in Bihar since 2011-12, according to data released by the State Level Bankers' Committee (SLBC), are presented in Table 9.8. As on September 2016, the aggregate deposits of all banks in Bihar were Rs 2,38,384 crore, against a credit of Rs 99,454 crore, resulting in a CD ratio of 41.7 percent, higher than the 36.7 percent in 2011-12, but lower than 47.4 percent in 2014-15. Even though there has been some improvement in the CD ratio in recent years, its low level continues to plague the banking scenario in Bihar.

**Table 9.8 : Credit-Deposit (CD) Ratio of All Banks in Bihar**

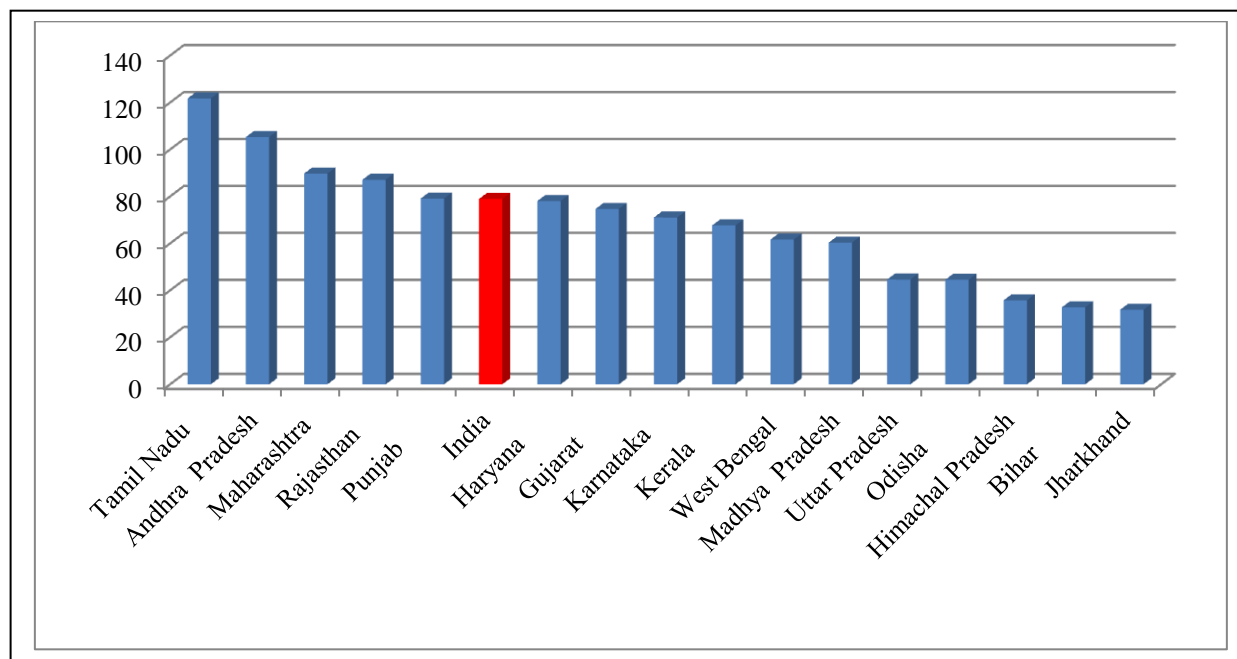
Year	Deposit (Rs. crore)	Credit (Rs. crore)	CD Ratio
2011-12	138163	50704	36.7
2012-13	161036	65364	40.6
2013-14	183458	85334	46.5
2014-15	211302	100261	47.4
2015-16	240288	103238	43.0
2016-17 (upto Sep 2016)	238384	99454	41.7

Note : As per the RBI data given in Table 9.7, CD Ratio of Bihar is 32.8 percent as of March, 2015, whereas the SLBC data presented in this table depicts the same as 41.7 percent. The difference is mainly due to the inclusion of funds loaned by banks under the RIDF Scheme (discussed in Section 9.5). Also Table 9.7 contains data only for the commercial banks in Bihar, while Table 9.8 contains data for all banks in Bihar including RRBs and Cooperative Banks.

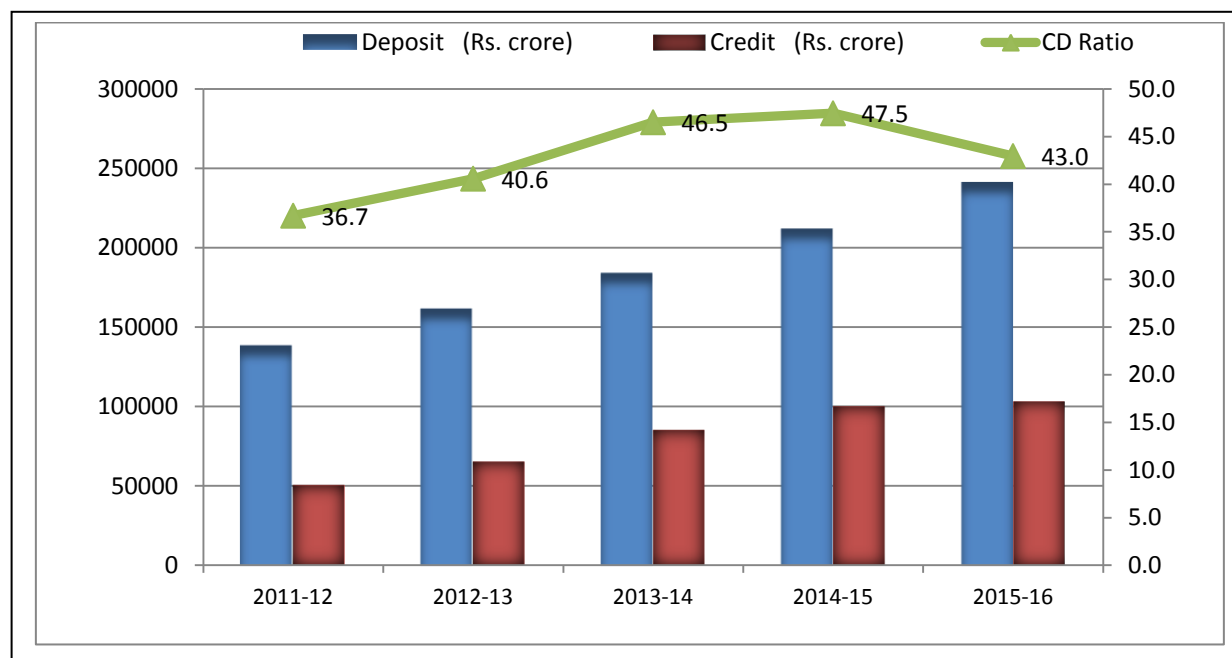
Source : State Level Bankers' Committee

In absolute terms, the low CD ratio means that if the current CD ratio of about 42 percent in the state were to increase to match the national level of around 79 percent, investments in the state would have gone up by nearly Rs. 98,400 crore which could provide the much-needed impetus to economic activities. The low disbursement of credit also indicates that either the industrial activities are stagnating or the credit requirements of the enterprises are being met at higher rates of interest from private lending agencies, eating into their profitability. This, naturally, is a serious hindrance to industrial growth in the state. Further, this also indicates the flight of capital away from an already disadvantaged state. However, it is to be mentioned that improvement in the CD ratio will depend on the credit demand which is dependent on a number of other factors, like availability of infrastructure (especially uninterrupted supply of power), market, entrepreneurial skill and business atmosphere, for many of which Bihar is seriously disadvantaged.

**Chart 9.1 : CD Ratio of Major Indian States as on March 31, 2015**



**Chart 9.2 : CD Ratio of Bihar**



The CD ratios in Bihar in 2015-16 by the bank groups and their locations are shown in Table 9.9. The CD ratios of Scheduled Commercial Banks in 2014-15 in different states as per sanction and utilization are shown in Table 9.10. Both these tables are based on the RBI data which do not take into account the credit available from NABARD under RIDF. In 2015-16, the CD ratio was the highest for Cooperative Banks (58.9 percent), followed by the Regional Rural Banks (53.9 percent); for Scheduled Commercial Banks, the ratio (36.8 percent) was much lower. The shares

of these banks in the total deposits were: Regional Rural Banks (10.3 percent), Cooperative Banks (1.1 percent), and Scheduled Commercial Banks (88.6 percent); for credit, the respective shares were 14.2 percent, 1.6 percent and 84.2 percent. The combined credits or deposits of the Regional Rural Banks and Cooperative Banks were a fraction of the total credits and deposits of the Scheduled Commercial Banks; consequently, unless the CD ratio of the latter improves significantly, the overall CD ratio in the state is unlikely to improve.

**Table 9.9 : Bank Group-wise and Area-wise Credit-Deposit Ratio (2015-16)**

Bank Groups	Area	Deposits (Rs. lakh)	Credits (Rs. lakh)	CD Ratio	Investment (Rs. crore)	ICD Ratio
Commercial Bank	Rural	4977678	1658668	33.3	--	--
	Semi-Urban	5589069	1952522	34.9	--	--
	Urban	10738175	4238576	39.5	--	--
	<b>Total</b>	<b>21304922</b>	<b>7849766</b>	<b>36.8</b>	<b>651661</b>	<b>44.6</b>
RRB	Rural	1603087	966906	60.3	--	--
	Semi -Urban	517340	237101	45.8	--	--
	Urban	342545	123445	36.0	--	--
	<b>Total</b>	<b>2462972</b>	<b>1327452</b>	<b>53.9</b>	<b>31114</b>	<b>55.2</b>
Cooperative Bank	Rural	94000	69100	73.5	--	--
	Semi-Urban	90300	53700	59.5	--	--
	Urban	76569	30768	40.2	--	--
	<b>Total</b>	<b>260869</b>	<b>153568</b>	<b>58.9</b>	<b>4373</b>	<b>60.5</b>
All Banks	Rural	6674765	2694674	40.4	--	--
	Semi-Urban	6196709	2243323	36.2	--	--
	Urban	11157289	4392789	39.4	--	--
	<b>Total</b>	<b>24028763</b>	<b>9330786</b>	<b>38.8</b>	<b>687148</b>	<b>45.8</b>

Source : State Level Bankers' Committee

#### Investment Plus Credit to Deposit (ICD) Ratio

The banks assist the economy not simply by giving credit, but also by investing in state government securities and in shares and bonds of state undertakings, quasi-government bodies and joint stock companies. Therefore, the total involvement of the banks in the economic activities of a state is truly reflected not by CD ratios alone, but by the Investment plus Credit to Deposit (ICD) ratios. From Table 9.9, it is seen that if the ICD ratio is taken into account, the performance of Scheduled Commercial Banks improves significantly, compared to their CD ratios.

#### CD Ratio as per Sanction and Utilisation

The CD ratio is conventionally calculated on the basis of credit sanctions in a state. A low CD ratio, based on credit sanctions, would indicate the migration of deposits from one state to



another. On the other hand, a CD ratio based on credit utilization takes into account the actual location where the credit is utilised. A comparison between these two types of ratios, therefore, assumes importance. For the country as a whole, these two ratios would evidently be identical, but the utilization ratio may be larger in respect of less developed states. This was indeed the case in Bihar, as the CD ratio based on utilisation was a little higher than the same based on sanction in both 2014 and 2015. (Table 9.10).

**Table 9.10 : Credit-Deposit (CD) Ratio of the Scheduled Commercial Banks as on March 31**

	2013		2014		2015	
	As per Sanction	As per Utilization	As per Utilization	As per Sanction	As per Utilization	As per Sanction
Andhra Pradesh	112.0	116.0	111.3	115.9	105.3	108.3
<b>Bihar</b>	<b>30.5</b>	<b>35.0</b>	<b>32.8</b>	<b>34.8</b>	<b>33.6</b>	<b>34.3</b>
Gujarat	72.8	81.5	74.7	81.0	72.7	79.0
Haryana	76.5	86.0	78.1	88.5	75.8	85.2
Himachal Pradesh	35.1	41.6	35.8	37.8	35.3	36.6
Jharkhand	32.1	35.8	31.8	33.0	29.6	30.6
Karnataka	71.9	76.5	71.0	76.5	67.7	72.6
Kerala	73.1	74.0	67.7	67.8	64.6	65.4
Madhya Pradesh	58.2	57.4	60.4	63.3	54.8	57.6
Maharashtra	89.4	80.8	89.8	81.3	92.0	82.7
Odisha	46.3	50.9	44.6	46.2	41.9	43.9
Punjab	81.6	78.9	79.1	81.3	75.1	76.8
Rajasthan	92.6	102.9	87.1	91.4	86.2	90.1
Tamil Nadu	123.3	122.2	121.8	120.6	119.0	117.5
Uttar Pradesh	44.1	53.0	44.6	48.0	45.4	48.9
Uttarakhand	34.8	37.3	35.6	36.7	34.5	35.2
West Bengal	62.0	63.3	61.6	63.9	57.8	60.3
<b>India</b>	<b>78.8</b>	<b>78.8</b>	<b>79.0</b>	<b>79.0</b>	<b>77.1</b>	<b>77.1</b>

Source : Report on Trend and Progress of Banking in India 2015-16, RBI

### CD Ratio of Districts

Table 9.11 depicts the CD ratios of all Scheduled Commercial Banks as well as Regional Rural Banks in all 38 districts of Bihar during 2015-16 and 2016-17 (upto September). From the table, it can be seen that the CD ratios showed a wide variation across the districts as of September 2016, from a low 26.6 percent in Siwan to a high of 68.7 percent for Kaimur. The CD ratio was less than 30 percent in only 3 of the 38 districts (Bhojpur, Saran and Siwan); these three districts along with Munger showed consistently low CD ratios over the last five years. The better performers (with CD ratios more than 50 percent) were Rohtas, Kaimur, West Champaran, Sheohar, Begusarai, Khagaria, Purnea, Kishanganj and Araria.

**Table 9.11 : District-wise Credit-Deposit (CD) Ratio**

District	2015-16	2016-17 (Sep 16)	District	2015-16	2016-17 (Sep 16)
Patna	37.0	38.1	Darbhanga	38.2	35.4
Nalanda	33.9	33.5	Madhubani	32.9	33.9
Bhojpur	28.8	28.9	Samastipur	45.9	45.2
Buxar	34.2	37.1			
Rohtas	45.2	52.9	Begusarai	49.8	53.4
Kaimur	46.3	68.7	Munger	27.5	32.1
			Sheikhpura	35.5	40.6
Gaya	36.3	33.3	Lakhisarai	37.7	37.2
Jehanabad	34.1	34.4	Jamui	33.1	43.1
Arawal	39.2	38.7	Khagaria	60.5	63.6
Nawada	39.0	39.0			
Aurangabad	39.4	40.6	Bhagalpur	44.7	33.3
			Banka	43.8	46.8
Saran	30.5	27.4			
Siwan	26.6	26.6	Saharsa	44.8	39.2
Gopalganj	31.9	30.1	Supaul	38.6	47.9
			Madhepura	40.3	42.0
West Champaran	51.9	55.1			
East Champaran	43.5	47.4	Purnea	62.1	65.6
Muzaffarpur	41.4	43.3	Kishanganj	69.5	60.7
Sitamarhi	39.4	40.8	Araria	57.8	58.3
Sheohar	50.2	52.6	Katihar	48.7	48.0
Vaishali	35.4	36.0			

Source : State Level Bankers' Committee

However, the high CD ratios in some districts are sometimes related to high Non-Performing Assets (NPA) of many banks, including cooperative banks; they do not necessarily reflect the banks' increased credit flow in the districts.

#### CD Ratio of Commercial Banks in Bihar

Tables 9.12 shows the CD ratios of nationalized commercial banks in Bihar. Among the Lead Banks, UCO Bank had the highest CD ratio of 46.0 percent as on September 2016, followed closely by Canara Bank (44.7 percent) and Union Bank of India (43.1 percent).

**Table 9.12 : Credit-Deposit (CD) Ratio of Nationalised Commercial Banks**

Banks	No. of Branches in 2016	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16 (Sep 15)
<b>Lead Banks</b>							
State Bank of India	930	31.2	26.5	35.7	37.5	40.0	30.8
Central Bank of India	440	33.9	37.3	41.1	37.2	33.0	34.5
Punjab National Bank	559	33.1	30.5	37.1	40.6	41.9	40.8
Canara bank	227	39.4	39.1	42.8	40.2	43.7	44.7
UCO Bank	230	28.9	36.3	36.6	39.3	40.7	46.0
Bank of Baroda	236	33.6	35.1	35.8	34.8	41.6	41.2
Union Bank of India	153	36.8	22.3	36.0	41.1	42.1	43.1
<b>Other Banks</b>							
Bank of India	335	35.0	37.5	38.5	38.5	40.3	40.7
Allahabad Bank	237	30.5	34.2	41.4	41.8	42.8	40.9
Andhra Bank	43	21.4	23.3	14.5	16.8	20.7	49.1
Bank of Maharashtra	13	17.2	7.9	8.0	32.5	67.4	69.0
Corporation Bank	41	75.0	20.4	57.4	89.2	72.0	89.3
Dena Bank	44	9.5	41.9	31.1	30.3	33.1	41.1
Indian Bank	59	32.3	21.6	60.6	68.8	79.4	79.2
Indian Overseas bank	61	17.8	36.8	50.2	60.00	73.0	73.3
Oriental Bank of Commerce	49	30.4	42.7	45.1	39.9	47.3	50.5
Punjab and Sind Bank	12	11.1	10.8	112.0	108.7	21.8	24.7
Syndicate Bank	57	39.9	41.4	40.1	40.9	41.0	27.3
United Bank of India	92	34.5	46.9	51.6	53.9	52.1	50.4
Vijaya Bank	34	21.9	22.8	25.7	29.2	41.4	44.6
State Bank of B&J	18	41.3	43.2	81.2	92.1	92.3	79.7
State Bank of Patiala	3	63.3	55.3	58.7	46.3	49.7	46.6
<b>State</b>	<b>3873</b>	<b>34.9</b>	<b>40.6</b>	<b>40.7</b>	<b>41.9</b>	<b>43.0</b>	<b>41.7</b>

Source : State Level Bankers' Committee

Among other nationalized banks, Corporation Bank had the highest CD Ratio of 89.3 percent, followed by State Bank of Bikaner & Jaipur (79.7 percent), Indian Bank (79.7 percent) and Indian Overseas bank (73.3 percent). Out of 22 banks, 13 had registered improvement in the CD ratios over the last year, others recording a deterioration.

The CD ratios of private commercial banks in Bihar need a separate mention (Table 9.13). As of 2015-16, there were 281 branches of 10 private banks in Bihar, compared to 239 branches in 2014-15. Their CD ratios varied from nil to 59.4 percent. The combined CD ratio for these banks was 49.0 percent in March 2016. Except for the 20 rural branches of only four banks (Axis Bank, HDFC Bank, ICICI Bank and IndusInd Bank), all other branches of private commercial banks were either in the semi-urban or urban areas.

**Table 9.13 : Credit-Deposit (CD) Ratio of Private Commercial Banks (2015-16)**

Banks	Rural			Urban and Semi-urban			Total			
	No. of branches	Deposit (Rs. lakh)	Advance (Rs. lakh)	No. of branches	Deposit (Rs.lakh)	Advance (Rs. lakh)	No. of branches	Deposit (Rs. lakh)	Advance (Rs. lakh)	CD Ratio
ICICI Bank	3	168417	8437	76	167133	157870	79	335550	166307	49.6
Federal Bank	0	0	0	8	24207	4270	8	24207	4270	17.6
Jammu Kashmir Bank	0	0	0	1	6779	1739	1	6779	1739	25.7
South Indian Bank	0	0	0	1	0	0	1	0	0	
ING Vysya Bank	0	0	0	0	0	0	0	0	0	
AXIS Bank	9	7100	990	64	390808	160516	73	397908	161506	40.6
HDFC Bank	3	2445	1096	87	395851	231311	90	398296	232407	58.4
IndusInd Bank	5	0	0	11	0	0	16	0	0	
Karnataka Bank	0	0	0	1	2397	597	1	2397	597	24.9
Kotak Mahindra Bank	0	0	0	12	36184	21492	12	36184	21492	59.4
<b>All Private Bank</b>	<b>20</b>	<b>177962</b>	<b>10523</b>	<b>261</b>	<b>1023359</b>	<b>577795</b>	<b>281</b>	<b>1201321</b>	<b>588318</b>	<b>49.0</b>

Source : State Level Bankers' Committee

**CD Ratios of Regional Rural Banks (RRB)**

There are three Regional Rural Banks in Bihar, each serving a particular zone: Madhya Bihar Kshetriya Gramin Bank (sponsored by Punjab National Bank), Uttar Bihar Kshetriya Gramin Bank (sponsored by Central Bank of India) and Bihar Kshetriya Gramin Bank (sponsored by UCO Bank). Table 9.14 shows the CD and ICD ratios of these 3 Regional Rural Banks. Bihar Keshtriya Gramin Bank has the highest ICD ratio of 80.8 percent in September 2016, while Madhya Bihar Keshtriya Gramin Bank has the lowest ICD ratio of 41.0 percent. The overall ICD ratio of RRBs in the state in September 2016 was 54.5 percent, nearly the same as in the last year (55.2 percent). There was not much difference between their CD and ICD ratios.

**Table 9.14 : Credit-Deposit (CD) and Investment Plus Credit-Deposit (ICD) Ratios of RRBs**

RRBs	CD Ratio				ICD Ratio			
	2013-14	2014-15	2015-16	2016-17 (Sep 16)	2013-14	2014-15	2015-16	2016-17 (Sep 16)
Madhya Bihar KGB	42.5	43.4	41.0	41.0	42.5	43.4	41.0	41.0
Bihar KGB	72.1	75.4	71.6	73.2	79.3	83.5	79.6	80.8
Uttar Bihar KGB	55.3	56.8	57.8	55.7	55.3	56.8	57.8	55.7
<b>Total of R.R.Bs</b>	<b>53.6</b>	<b>54.9</b>	<b>53.9</b>	<b>53.3</b>	<b>54.7</b>	<b>56.2</b>	<b>55.2</b>	<b>54.5</b>

Source : State Level Bankers' Committee

### 9.3 Sectoral Share in Priority Sector Advances

#### Achievement under Annual Credit Plan (ACP)

Table 9.15 presents the sectoral profile of credit deployment in 2015-16. The priority sector advances constituted 76 percent of the total bank advances in the state. The share of agriculture in the total advances was 52 percent, about the same as in the previous year. It can be seen that while advances to agriculture dominated the credit in the state, the advances made to the small and medium scale industries were only 16 percent of the total loans disbursed in 2015-16, which was a little higher than 13 percent registered in 2014-15. This lower volume of credit to industry in Bihar is certainly a cause for concern. For augmenting the credit flow to this sector, development of infrastructure in power, market and roadways would be necessary, along with the revival of Industrial Estates. The overall achievement under the Annual Credit Plan was 95 percent in 2015-16, which was higher than that achieved in 2014-15 (93 percent). There was also an overachievement in respect of credit to small and medium enterprises. This obviously indicates a growing demand for credit for small and medium enterprises and the need to enhance the allocation for this sector. The district-wise figures of achievements of Annual Credit Plan are shown in Table A 9.1 (Appendix).

**Table 9.15 : Sectoral Share of Advances under Annual Credit Plans (2015-16)**

Sector	ACP Target (Rs. crore)	Achievement (Rs. crore)	Achievement (percentage)	Share in Advances (percentage)
Agriculture	42500	41350	97.3	51.6
Small & Medium Enterprises	12000	13097	109.1	16.4
Other Priority Sector Advances	7500	6399	85.3	8.0
Total Priority Sector Advances	62000	60846	98.1	76.0
Non Priority Sector Advances	21999	19238	87.5	24.0
<b>Total</b>	<b>83999</b>	<b>80084</b>	<b>95.3</b>	<b>100.0</b>

Source : State Level Bankers' Committee

The total credit flow in Bihar during the past six years is shown in Table 9.16. Under the Annual Credit Plan of banks in Bihar, the total credit flow in the state has increased from Rs 68,797 crore in 2014-15 to Rs 80,084 crore in 2015-16, registering a 16 percent growth compared to the 21 percent growth registered a year before. The achievement percentages have been rising steadily from 69 percent in 2010-11 to 95 percent in 2015-16. It is also seen that while there were some variations in achievement rates among various bank groups, all of them performed well (Table 9.17). While both Cooperative Banks (126 percent) and the Regional Rural Banks (101 percent) registered over-achievement, the performance of Scheduled Commercial Banks was 93 percent.

**Table 9.16 : ACP Achievement - All Banks**

Year	Target (Rs. crore)	Achievement (Rs. crore)	Achievement (percentage)
2010-11	37000	25552	69.1
2011-12	43200	32416	75.0
2012-13	51400	44521	86.6
2013-14	62000	57007	92.0
2014-15	74000	68797	93.0
2015-16	83999	80084	95.3

Source: State Level Bankers' Committee

**Table 9.17 : Agency-wise Analysis of ACP Achievement (2015-16)**

Agencies	Target (Rs. crore)	Achievement (Rs. crore)	Achievement (percentage)
Commercial Banks	65032	60610	93.2
Regional Rural Bank	17968	18217	101.4
Cooperative Banks	1000	1258	125.8
<b>Total</b>	<b>83999</b>	<b>80084</b>	<b>95.3</b>

Source : State Level Bankers' Committee

### Outstanding Agricultural Advances

The data on credit flow to agriculture in Bihar during the six year period 2010-11 to 2015-16 is presented in Table 9.18. The agricultural credit flow expanded continuously since 2010-11. In 2015-16, the overall achievement rate had been more than 97 percent in respect of all banks and more than 100 percent in respect of Cooperative Banks and RRBs. It was, of course, the Commercial Banks that accounted for the major share in the total credit, which was more than 60 percent in 2015-16. The outstanding agricultural advances stood at Rs 35,673 crore at the end of 2015-16 (Table 9.19). This implied an average compound annual growth rate of 20.6 percent in the total outstanding credit to agriculture during the six-year period.

**Table 9.18 : Agriculture Credit Flow**

(Rs. crore)

Year	Commercial Bank		RRBs		CCBs		Total	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
2010-11	9111	7058 (77.5)	5228	3188 (61.0)	1529	422 (27.6)	15868	10667 (67.2)
2011-12	12241	9689 (79.2)	7013	4882 (69.6)	1848	387 (20.9)	21102	14958 (70.9)
2012-13	14674	13203 (90.0)	8407	8035 (95.6)	2319	328 (14.2)	25401	21566 (84.9)
2013-14	18709	17786 (95.1)	10777	10676 (99.1)	800	307 (38.4)	30286	28770 (95.0)
2014-15	22191	21260 (95.8)	12809	13058 (101.9)	1000	362 (36.2)	36000	34680 (96.3)
2015-16	26554	24957 (94.0)	14946	15135 (101.3)	1000	1258 (125.8)	42500	41350 (97.3)

Note : Figures in bracket indicate percentage of achievement

Source: State Level Bankers' Committee

**Table 9.19 : Outstanding Agricultural Advances**

Year	Outstanding Agricultural Advances (Rs. crore)				Annual Growth Rate
	Commercial Banks	RRBs	Cooperative & LDBs	Total	
2010-11	10664	3270	48	13982	17.3
2011-12	12426	3445	2418	18290	30.8
2012-13	15422	4219	2824	22538	23.2
2013-14	19231	5101	1047	25380	12.6
2014-15	23130	6311	1212	30652	20.8
2015-16	25281	8856	1536	35673	16.4

Source: State Level Bankers' Committee

**Primary Agricultural Credit Societies (PACS)**

Table 9.20 shows some selected indicators of functioning of Primary Agricultural Credit Societies (PACS) in different states, as on March 2015. Though with 8463 PACS, Bihar accounts for 9.1 percent of all PACS in India, it is much behind the other states in terms of both deposits and borrowings. Also, out of the total 8463 PACS in Bihar, as many as 3962 societies are making losses, their total loss amounting to Rs 1 crore, while 1180 societies have earned a total profit of Rs 6 crore. The total deposits of all PACS were only Rs 175 crore, and their total borrowings amounted to Rs 501 crore.

**Table 9.20 : Selected Indicators of Primary Agricultural Credit Societies (March 31, 2015)**

State	No. of PACS	Deposits (Rs crore)	Borrowings (Rs crore)	Loans and Advances Outstanding (Rs crore)		Societies in Profit		Societies in Loss	
				Agriculture	Non-Agriculture	No.	Amount (Rs crore)	No.	Amount (Rs crore)
Andhra Pradesh	2807	1260	5491	4237	184	1222	50	1585	440
<b>Bihar</b>	<b>8463</b>	<b>175</b>	<b>501</b>	<b>NA</b>	<b>NA</b>	<b>1180</b>	<b>6</b>	<b>3962</b>	<b>1</b>
Gujarat	8605	765	8886	9160	206	6038	92	1818	45
Haryana	663	497	7494	9113	385	46	29	617	413
Himachal Pradesh	2135	2283	100	586	11	1718	0	343	0
Karnataka	5625	6024	8521	10195	3056	3711	64	1191	46
Kerala	1642	58908	6593	9866	36282	1019	1608	545	1342
Madhya Pradesh	4457	817	10524	3400	119	2153	131	2129	178
Maharashtra	21199	188	12192	9972	1673	8977	5	12004	6
Odisha	2701	1182	14657	2739	80	645	26	2028	350
Punjab	1609	434	1555	1183	36	925	199	472	829
Rajasthan	5671	1395	5377	3012	187	4049	83	1113	34
Tamil Nadu	4490	7134	12319	6111	10744	2758	385	1732	512
Uttar Pradesh	8929	68	971	800	0	4536	18	1968	2
Uttarakhand	759	849	828	611	123	604	12	146	4
West Bengal	7402	1891	1799	1387	241	2344	20	4036	14
<b>India</b>	<b>92789</b>	<b>84616</b>	<b>99980</b>	<b>73860</b>	<b>53471</b>	<b>43653</b>	<b>2829</b>	<b>37440</b>	<b>4378</b>

Source : National Federation of State Cooperative Banks Ltd. (NAFSCOB)

The poor resource base of PACS, their inefficient management and low level of participation of their members are major bottlenecks for increasing the credit flow through PACS. As indicated by NABARD, the limited capacity of PACS allows them to meet only partially the credit requirements of their members. In order to improve their functioning and financial status, it is necessary to develop them as Multi-Service Centres to provide ancillary services to their members and help them to diversify their activities.

### State Cooperative Banks

Table 9.21 shows the working results of State Cooperative Banks in major states during the three years 2013-15. The recovery percentage for these banks in Bihar actually declined significantly from 55 percent in June 2013 to only 22 percent in June 2015. The share of Non-Performing Assets (NPA) in the total outstanding loans in Bihar was 12.2 percent in 2015, compared to 12.4 percent in 2014 and 13.0 percent in 2013.

**Table 9.21 : Working Results of State Cooperative Banks**

State	Profit/Loss (Rs. crore)			NPAs as percentage to Loans Outstanding			Collection (percentage) as at end-June		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Andhra Pradesh	73.89	1365.10	125.18	1.9	2.3	NA	97.3	97.3	87.0
<b>Bihar</b>	<b>59.50</b>	<b>241.20</b>	<b>63.52</b>	<b>13.0</b>	<b>12.4</b>	<b>12.2</b>	<b>54.8</b>	<b>25.1</b>	<b>22.5</b>
Gujarat	66.36	139.30	NA	1.6	2.3	2.2	98.5	98.5	56.5
Haryana	30.21	219.80	16.23	0.1	0.1	0.0	100.0	100.0	100.6
Himachal Pradesh	50.46	406.80	59.85	9.8	10.4	8.6	69.7	86.0	12.3
Jharkhand	-0.52	-23.30	NA	37.5	55.5	NA	NA	69.1	NA
Karnataka	31.00	345.00	30.30	3.3	4.2	3.8	97.6	98.0	51.9
Kerala	53.16	-635.90	-354.17	8.4	24.7	28.1	84.4	86.2	98.1
Madhya Pradesh	39.04	655.90	76.37	1.7	0.8	1.4	97.7	97.7	0.0
Maharashtra	391.17	4005.10	410.60	18.9	14.7	11.7	89.1	83.8	61.1
Odisha	12.64	140.50	15.61	4.6	3.8	2.9	97.1	97.3	65.8
Punjab	18.91	172.90	21.28	0.8	0.8	0.8	98.7	97.3	73.9
Rajasthan	23.53	151.30	56.93	0.9	0.3	0.3	97.0	98.5	86.8
Tamil Nadu	43.24	322.20	41.38	4.6	4.3	4.7	99.8	99.5	127.9
Uttar Pradesh	32.36	402.40	80.59	5.1	5.1	4.8	96.0	95.5	62.1
Uttarakhand	4.44	71.40	NA	10.2	3.1	3.1	97.2	94.8	0.5
West Bengal	10.04	-106.30	10.03	9.6	7.6	3.1	93.1	53.3	0.8

Source : National Federation of State Cooperative Banks Ltd.(NAFSCOB)



## State Cooperative Agriculture and Rural Development Banks

Table 9.22 shows the working results of State Cooperative Agriculture and Rural Development Banks (SCARDB) in major states. Here also, the recovery rate in Bihar was very poor at only 6.4 percent in 2013, compared to the national average of 49.0 percent. In Bihar, the Non-Performing Assets (NPA) constituted as much as 98.1 percent of their total outstanding loans in 2014 as well as 2015. These ratios were much higher than the national averages of only 35.6 and 22.4 percent in these two years respectively. The total losses of these banks in Bihar was Rs. 22.1 crore in both 2014 and 2015.

**Table 9.22 : Working Results of SCARDBs**

State	Branches	Profit/Loss (Rs. crore)		NPAs as percentage of Loans outstanding		As on June 30, 2013 Recovery (Percentage)
	2015	2014	2015	2014	2015	2013
<b>Bihar</b>	<b>131</b>	<b>-22.08</b>	<b>-22.08</b>	<b>98.1</b>	<b>98.1</b>	<b>6.4</b>
Chhattisgarh	0	-9.56	NA	70.7	NA	NA
Gujarat	181	23.50	23.50	43.7	43.5	45.2
Haryana	0	-36.13	-59.05	46.6	46.7	26.6
Himachal Pradesh	49	2.41	1.20	37.8	29.8	39.8
Karnataka	25	0.06	0.13	26.6	23.4	51.3
Kerala	14	21.11	23.41	3.2	1.1	72.6
Madhya Pradesh	7	-197.64	NA	86.3	NA	9.8
Maharashtra	0	-204.76	NA	99.9	NA	NA
Odisha	5	-0.97	NA	100.0	NA	NA
Punjab	0	25.67	26.10	2.0	1.4	63.6
Rajasthan	7	2.15	4.25	26.7	39.8	37.9
Tamil Nadu	0	2.67	2.90	19.2	19.1	79.5
Uttar Pradesh	323	81.79	20.00	46.3	43.4	42.5
West Bengal	2	-24.21	0.42	26.9	26.1	44.5
<b>All India</b>	<b>824</b>	<b>-346.33</b>	<b>NA</b>	<b>35.6</b>	<b>22.4</b>	<b>49.0</b>

Source : National Federation of State Cooperative Banks Ltd.(NAFSCOB)

## Kisan Credit Cards

The Kisan Credit Cards (KCC) scheme, introduced in 1998-99, aims at providing crop loans to farmers in a flexible and cost-effective manner. The scheme is implemented by all Scheduled Commercial Banks, Regional Rural Banks, State Cooperative Banks, Central Cooperative Banks, and Primary Agricultural Cooperative Societies. Beneficiaries under the KCC are issued with a

credit card-cum-passbook, incorporating the borrowing limit and validity period. The credit limits are fixed, taking into account the production credit needs for a full year, plus ancillary activities relating to crop production. At the discretion of lending banks, sub-limits for credits are also fixed. The crop loan is provided in the form of a revolving cash credit facility, involving any number of drawals and repayments within the fixed limit.

The number of KCCs issued by banks in Bihar during the period 2011-12 to 2015-16 is shown in Table 9.23. For the Scheduled Commercial Banks, the achievement rates were high, it being 52.7 percent in 2015-16, while RRBs registered an achievement rate of 51.0 percent in 2015-16. The Central Cooperative Banks lagged way behind their targets, their achievement in 2015-16 being only 18.7 percent. The overall achievement for all banks in 2015-16 was 50.9 percent. The district-wise figures of achievements of KCC scheme are shown in Table A 9.2 (Appendix).

**Table 9.23 : Number of Kisan Credit Cards (NEW) issued by Banks**

	Target	Achievement	Percentage	Target	Achievement	Percentage
	Commercial Banks			RRBs		
2011-12	811209	579456	71.4	467080	204488	43.8
2012-13	811207	600343	74.0	467081	246987	52.9
2013-14	909186	675107	74.3	535348	387658	72.4
2014-15	903944	628370	69.5	537590	353841	65.8
2015-16	918912	484543	52.7	527226	269047	51.0
	CCB			Total		
2011-12	221711	34946	15.8	1500000	818890	54.6
2012-13	221712	16492	7.4	1500000	863822	57.6
2013-14	55466	11325	20.4	1500000	1074090	71.6
2014-15	58466	13057	22.3	1500000	995268	66.4
2015-16	53860	10093	18.7	1500000	763683	50.9

Source: State Level Bankers' Committee

## 9.4 Financial Institutions

### National Bank for Agriculture and Rural Development (NABARD)

The NABARD has a mandate for facilitating credit flow for development of agriculture, agro-industries, village and cottage industries, handicrafts and other rural crafts by providing refinance to lending institutions in rural areas. It also coordinates the operation of rural credit institutions and offers training and research facilities. In addition, it manages the Rural Infrastructure Development Fund (RIDF), created to compensate for the shortfall in lending by commercial banks to agriculture. NABARD also provides loans to state governments for projects relating to

irrigation, soil conservation, watershed management, drinking water supply, cold storage chains, and other rural infrastructure projects.

The details of sector-wise refinancing by NABARD till March, 2016 are shown in Table 9.24. Total financial support provided during 2015-16 was Rs 6778 crore, less than the amount of Rs 7655 crore in 2014-15. There was substantial decrease in crop loan refinance, which was partly compensated by increase in investment credit refinancing. During the year, the shares of different components were — crop loan refinancing (35 percent), investment credit refinancing (47 percent) and RIDF loans (17 percent).

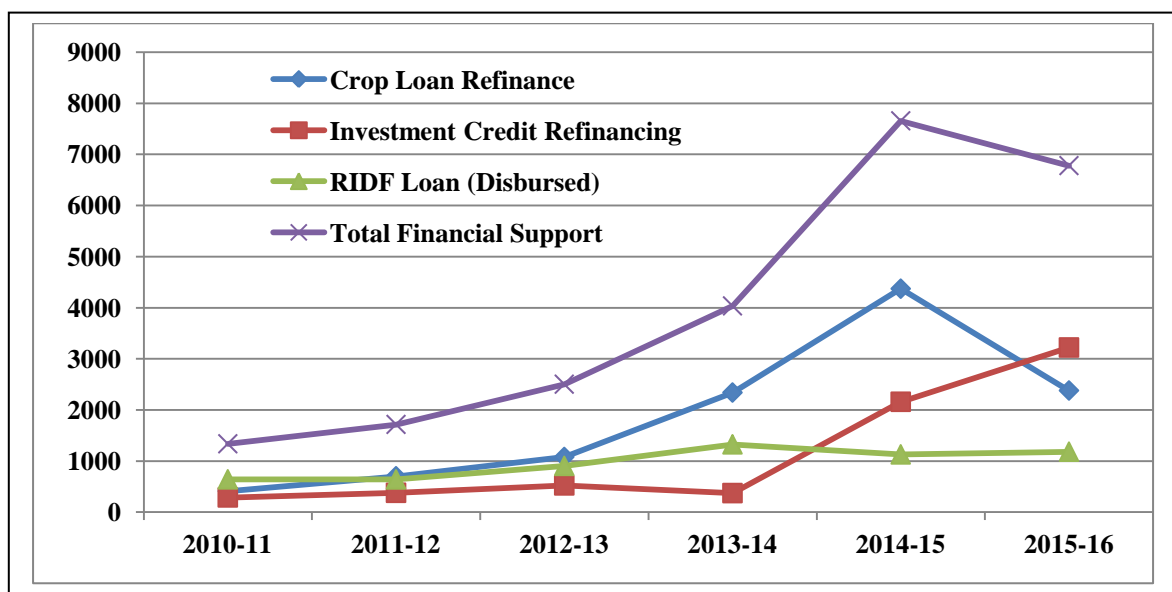
**Table 9.24 : Sector-wise Refinancing by NABARD**

(Rs crore)

Year	Crop Loan Refinance	Investment Credit Refinancing	RIDF Loan (sanctioned)	Total Financial Support
2010-11	409.7	285.9	640.0	1335.6
2011-12	700.0	376.5	638.0	1714.5
2012-13	1077.0	521.4	903.0	2501.4
2013-14	2338.0	370.6	1325.0	4033.6
2014-15	4370.0	2157.4	1128.0	7655.4
2015-16	2377.6	3219.7	1181.0	6778.3

Source : NABARD

**Chart 9.3 : Refinancing by NABARD (Rs crore)**



Under the Investment Credit Refinancing, NABARD covers a number of activities and Table 9.25 presents the extent of refinancing for each of these activities during the last five years. It emerges from the table that the shares of five listed activities in total refinancing of Rs. 3219.7 crore were — minor irrigation (1.3 percent), farm mechanisation (5.1 percent), Self-Help Groups (2.9 percent), dairy (10.4 percent) and non-farm sector (2.1 percent). The level of refinancing in 2015-16 was increased by nearly 1.5 times compared to the previous year.

**Table 9.25 : Details of Sector-wise Investment Credit Refinance in Bihar by NABARD**

(Rs. crore)

Sectors	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Minor Irrigation	39.38	32.72	46.57	17.89	25.25	43.44
Farm Mechanization	81.92	97.76	250.84	67.27	295.60	164.77
Dairy	92.56	70.62	-	31.11	104.59	333.68
Self Help Groups	40.57	43.66	-	63.38	114.24	92.15
Non-Farm Sector	22.84	97.80	53.56	21.26	298.06	67.88
Others	8.72	33.98	170.46	169.73	1319.30	2517.75
<b>Total</b>	<b>285.99</b>	<b>376.54</b>	<b>521.43</b>	<b>370.64</b>	<b>2157.36</b>	<b>3219.66</b>

Source : NABARD, Bihar

## 9.5 Rural Infrastructure Development Fund (RIDF)

The RIDF was set up by the central government in 1995-96 for financing ongoing rural infrastructure projects by providing low cost fund support to the state governments and state-owned corporations. The fund is managed by NABARD. The scheduled commercial banks contribute to the fund to the extent of their shortfall in stipulated priority sector lending to agriculture. The RIDF was created to provide the following benefits: (i) unlocking of sunk investment already made by the state governments, (ii) creation of additional irrigation potential, (iii) generation of additional employment for the rural people, (iv) contribution to the economic wealth of the state, (v) improved connectivity between villages and marketing centres, and (vi) improvements in quality of life through facilities in education, health and drinking water supply. At present, RIDF covers a wide range of 36 activities classified broadly under three categories — (i) Agriculture and Related sectors, (ii) Social Sectors and (iii) Rural Connectivity. For Agriculture and Related Sectors, the loans are provided for 95 percent of the project cost; for Social Sectors, the limit is 90 percent for north-eastern region and 85 percent for other states; finally, for Rural Connectivity, the limits are 90 percent for north-eastern region and 80 percent for other states.

Till the end of March, 2016, 21 tranches of RIDF have been sanctioned. From the initial corpus of Rs 2000 crore under Tranche I, the cumulative resources allocated from RIDF-I to XXI were

Rs 2,42,500 crore, against which sanctions and disbursements were Rs 2,60,159 crore and Rs 90,023 crore respectively. Of these, tranches up to RIDF-XIV have been closed with a funding of Rs 86,000 crore and an overall utilisation of 90 percent.

**Table 9.26 : Sanctions and Disbursements in Bihar under RIDF till March, 2016**

(Rs. crore)

RIDF Tranche	Sanction	Disbursement	Disbursement Percentage
RIDF I - X	508	351	69.1
RIDF XI	459	418	91.1
RIDF XII	305	231	75.7
RIDF XIII	578	512	88.6
RIDF XIV	752	733	97.5
RIDF XV	674	637	94.5
RIDF XVI	1089	801	73.6
RIDF XVII	1048	721	68.8
RIDF XVIII	1490	1124	75.4
RIDF XIX	1764	1251	70.9
RIDF XX	1085	511	47.1
RIDF XXI	2025	308	15.2
Total till March 2014	8671	5290	61.0
Total till March 2015	9756	6418	65.8
Total till March 2016	11781	7599	64.5

Source : NABARD Bihar

The total disbursements made by NABARD to Bihar under 21 tranches of the RIDF loan are shown in Table 9.26. For many tranches, there is a huge gap between sanction and disbursement. Till March 2014, the total disbursements stood 61.0 percent which rose to 64.5 percent by March 2016. Such shortfall in disbursements of RIDF funds is a matter of concern for Bihar.

## 9.6 Micro-Finance in Bihar

The conventional anti-poverty programmes suffer from problems of delivery and are often unsuccessful in making a serious dent on poverty, especially the kind of poverty caused by the absence of a credit support for the poor households. This is particularly true in Bihar. In this scenario, microfinance is a potent alternative for poverty alleviation, through affordable, timely and adequate credit and other financial services for the poor people. In this background, the Self Help Groups (SHGs) and the SHG-Bank Linkage Programme (SHG-BLP), implemented by Scheduled Commercial Banks, Regional Rural Banks and Cooperative Banks, have emerged as the major microfinance programme in the country.

Table 9.27 shows the status of SHG-Bank Linkage in major Indian states in terms of the number of credit-linked SHGs till 2015-16. As of March 2016, there were 79 lakh SHGs in India linked to the formal banking system with their savings balance of nearly Rs. 13,691 crore, compared to Rs. 11,060 crore in the previous year. The total bank loan disbursed to these SHGs during 2015-16 amounted to Rs 37287 crore. In other words, the SHG-BLP has so far been one of the most preferred and viable models for financial inclusion of the hitherto unreached rural poor. Bihar had 2.79 lakh SHGs at the end of 2015-16, about 3.5 percent of the country's total; its share in 2014-15 was lower at 2.9 percent. The total savings of these SHGs were Rs 360 crore and a total bank credit of Rs 611 crore was made available to these SHGs during 2015-16.

**Table 9.27 : SHG-Bank Linkage in Selected States of India (March 2016)**

State	No. of SHGs ('000) with Bank Linkage	Savings of SHGs with Banks (Rs crore)	Bank loans disbursed during the year (Rs crore)	State	No. of SHGs ('000) with Bank Linkage	Savings of SHGs with Banks (Rs crore)	Bank loans disbursed during the year (Rs crore)
Andhra Pradesh	902	4146	11505	Maharashtra	789	857	1600
<b>Bihar</b>	<b>279</b>	<b>360</b>	<b>611</b>	Odisha	487	486	860
Chhattisgarh	160	160	96	Punjab	30	40	38
Gujarat	221	184	266	Rajasthan	264	187	322
Haryana	43	159	54	Tamil Nadu	852	920	4826
Jharkhand	99	96	66	Uttar Pradesh	364	382	294
Karnataka	962	1442	6259	West Bengal	831	1535	1954
Kerala	273	629	1407				
Madhya Pradesh	249	248	591	<b>Total</b>	<b>7903</b>	<b>13691</b>	<b>37287</b>

Source : Status of Micro Finance in India, 2015-16, NABARD

Bihar, a slow starter, is gradually matching with other states in both formation of SHGs and ensuring their bank linkages. The performance of SHGs in Bihar till 2015-16 is shown in Table 9.28. As of March, 2016, bank-linked SHG coverage in rural Bihar was 36.21 lakh households, up from 29.18 lakh a year before. The average savings of Rs 12,924 per SHG in Bihar was still well below the national average of Rs 17,324, and the gap has considerably widened in 2016. The average credit of Rs 62 thousand per SHG was again far below the national average of Rs 2.03 lakh. The total loans disbursed during 2015-16 to the SHGs by banks amounted to Rs 610 crore, which was much higher than Rs 471 crore disbursed in the previous year. Their outstanding loans at the end of 2015-16 stood at Rs 1002.48 crore, little less than the corresponding figure one year earlier (Rs 1026.76 crore). The non-productive assets of SHGs in Bihar increased substantially from Rs 71.3 crore in 2014-15 to Rs 132.8 crore in 2015-16. Such

non-productive assets in 2015-16 constituted 13.25 percent of total outstanding loans, compared to a much lower 6.94 percent in the previous year.

**Table 9.28 : Performance of SHGs in Bihar**

Indicators	March 2014	March 2015	March 2016
Rural households covered (SHG: savings linked) (in lakh)	32.4	29.18	36.21
No. of SHGs having savings bank account (in lakh)	2.69	2.24	2.78
Average savings / SHG (Bihar) (Rs)	6127.0	13216	12924
Average savings / SHG (India) (Rs.)	13321.0	14368	17324
No. of SHGs provided bank loan	190171	189341	267338
Amount of bank loan outstanding (Rs. lakh)	89814.2	102675.69	100247.52
No. of SHGs provided bank loan during the year	40036	65122	98608
Amount of bank loan (Rs. lakh)	28400.0	47100.54	61056.39
Average bank loan per SHG in Bihar (Rs. lakh)	0.70	0.72	0.62
Average bank loan per SHG in India (Rs. lakh)	1.75	1.69	2.03
Gross NPA (Rs. lakh)	7057.6	7130.35	13280.12
Percentage of gross NPA to total outstanding in Bihar	7.86	6.94	13.25

Source : NABARD Bihar

Some major handicaps that exist in linking the SHGs to banks include the absence of reputed NGOs and low awareness of the stakeholders about the benefits of SHG lending. As noted by NABARD, despite the unique characteristics of SHGs and their accomplishments so far, several issues continue to affect the programme like inadequate outreach in many regions, delays in opening of SHG accounts, delays in disbursement of loans, impounding of savings by banks as collateral, non-approval of repeat loans even when the first loans were repaid promptly, multiple membership, limited interface with bankers, and monitoring. It is expected that initiatives taken by NABARD and other implementing banks in organising sensitisation programmes shall result in a more favourable environment towards the SHG movement in the state.

## APPENDIX

**Table A 9.1 : District-wise Performance Under Annual Credit Plan as on 31.3.2016**

### A : Priority Sector Advances

(Rs. crore)

District	Agriculture			Small & Medium Enterprise			Other Priority Sector			Total Priority Sector		
	Target	Achievement	Achievement Percentage	Target	Achievement	Achievement Percentage	Target	Achievement	Achievement Percentage	Target	Achievement	Achievement Percentage
Patna	1751	2533	144.61	2165	2957	136.60	2052	1943	94.70	5968	7433	124.54
Nalanda	990	886	89.55	380	419	110.12	105	90	85.62	1475	1395	94.57
Bhojpur	1741	1582	90.87	207	212	102.54	134	109	81.21	2082	1903	91.41
Buxar	1303	1272	97.63	269	233	86.44	134	116	86.33	1706	1621	94.98
Rohtas	1600	1582	98.88	544	534	98.12	142	129	91.07	2286	2246	98.22
Kaimur	1679	1458	86.85	200	174	87.14	71	64	89.55	1950	1696	86.98
Gaya	1510	1486	98.39	646	654	101.15	191	237	124.38	2347	2377	101.26
Jehanabad	523	473	90.37	103	123	118.95	83	67	80.61	710	663	93.40
Arwal	362	319	88.30	45	60	133.01	46	41	89.90	452	420	92.91
Nawada	620	481	77.59	102	182	178.92	97	79	81.35	819	743	90.63
Aurangabad	1320	1213	91.86	204	187	91.63	196	180	91.77	1721	1580	91.82
Saran	1516	1566	103.29	477	451	94.45	234	213	90.77	2228	2229	100.08
Siwan	1222	1223	100.11	260	290	111.60	199	177	89.14	1681	1690	100.59
Gopalganj	1583	1411	89.18	103	119	115.26	158	110	70.08	1844	1641	89.01
W. Champaran	1867	1862	99.77	476	508	106.78	350	339	96.82	2693	2709	100.63
E. Champaran	1884	1909	101.30	421	440	104.51	220	119	53.89	2526	2468	97.70
Muzaffarpur	2293	2222	96.94	634	693	109.26	344	332	96.32	3271	3247	99.26
Sitamarhi	962	827	85.89	217	196	90.00	80	62	77.14	1259	1084	86.05
Sheohar	218	189	86.81	16	20	124.52	10	8	77.77	244	217	88.96
Vaishali	1004	924	92.09	206	285	138.19	201	178	88.52	1411	1387	98.31
Darbhanga	880	814	92.45	313	307	98.26	131	162	123.43	1324	1283	96.89
Madhubani	1329	1140	85.81	293	314	107.07	134	90	67.25	1756	1544	87.94
Samastipur	1889	1828	96.81	539	440	81.58	195	145	74.61	2623	2414	92.03
Begusarai	1508	1543	102.34	718	846	117.86	380	228	60.00	2606	2617	100.44
Munger	461	509	110.48	167	148	88.46	150	104	69.62	778	762	97.88
Sheikhpura	286	278	97.28	47	38	80.98	30	20	67.24	363	336	92.70
Lakhisarai	394	345	87.60	103	80	77.43	69	28	40.60	566	453	80.02
Jamui	509	493	96.73	107	87	80.96	85	45	52.96	701	624	89.02
Khagaria	785	823	104.88	190	185	96.97	87	43	48.67	1063	1051	98.84
Bhagalpur	1017	1039	102.18	638	562	88.20	196	134	68.60	1850	1736	93.81
Banka	659	614	93.07	204	182	89.07	135	96	70.66	999	891	89.22
Saharsa	637	596	93.50	82	136	165.75	125	127	101.93	844	859	101.77
Supaul	701	667	95.15	55	97	174.10	104	69	65.87	860	832	96.70
Madhepura	741	712	96.18	55	70	127.70	76	68	89.25	871	850	97.55
Purnea	1383	1268	91.69	220	258	117.23	200	146	72.99	1804	1673	92.74
Kishanganj	1099	1074	97.76	190	197	103.94	101	86	85.55	1390	1358	97.72
Araria	1171	1136	96.95	215	241	111.74	100	87	87.39	1487	1464	98.45
Katihar	1103	1050	95.23	185	173	93.60	155	128	82.75	1443	1352	93.68
<b>Bihar</b>	<b>42500</b>	<b>41350</b>	<b>97.29</b>	<b>12000</b>	<b>13097</b>	<b>109.14</b>	<b>7500</b>	<b>6399</b>	<b>85.32</b>	<b>62000</b>	<b>60846</b>	<b>98.14</b>

Source: State Level Bankers' Committee



**B : Non-Priority Sector Advances as on 31.3.2016**

(Rs. crore)

District	Non-Priority Sector			Grand total		
	Target	Achieve- ment	Achieve- ment Percentage	Target	Achieve- ment	Achieve- ment Percentage
Patna	6513	5406	83.01	12481	12840	102.87
Nalanda	455	411	90.41	1930	1806	93.59
Bhojpur	476	363	76.23	2558	2266	88.58
Buxar	269	247	91.80	1975	1867	94.54
Rohtas	420	394	93.64	2707	2639	97.51
Kaimur	245	192	78.56	2195	1888	86.04
Gaya	788	600	76.12	3136	2977	94.94
Jehanabad	151	148	98.02	861	811	94.21
Arwal	101	88	87.88	553	509	92.00
Nawada	259	252	97.01	1079	994	92.16
Aurangabad	382	318	83.21	2102	1897	90.26
Saran	613	556	90.74	2841	2786	98.06
Siwan	647	505	78.03	2327	2195	94.32
Gopalganj	394	445	112.92	2238	2086	93.22
W. Champaran	584	531	91.04	3276	3241	98.92
E. Champaran	697	728	104.42	3223	3196	99.16
Muzaffarpur	1010	877	86.77	4281	4124	96.32
Sitamarhi	487	457	94.00	1746	1541	88.26
Sheohar	63	61	96.63	307	278	90.54
Vaishali	496	501	101.14	1907	1888	99.04
Darbhanga	716	547	76.44	2040	1830	89.72
Madhubani	617	562	91.06	2373	2106	88.75
Samastipur	669	585	87.47	3292	2999	91.10
Begusarai	519	400	77.20	3124	3018	96.58
Munger	455	398	87.49	1233	1160	94.04
Sheikhpura	74	59	79.80	437	396	90.51
Lakhisarai	146	135	92.55	712	588	82.58
Jamui	215	189	88.23	916	814	88.84
Khagaria	214	169	78.84	1277	1219	95.49
Bhagalpur	571	430	75.35	2421	2166	89.46
Banka	244	185	75.91	1243	1076	86.61
Saharsa	287	283	98.86	1131	1142	101.03
Supaul	329	344	104.78	1189	1176	98.93
Madhepura	306	334	108.86	1178	1183	100.50
Purnea	389	413	106.36	2193	2086	95.15
Kishanganj	193	199	102.85	1583	1557	98.35
Araria	309	301	97.44	1795	1764	98.28
Katihar	698	622	89.10	2141	1974	92.18
<b>Bihar</b>	<b>21999</b>	<b>19238</b>	<b>87.45</b>	<b>83999</b>	<b>80084</b>	<b>95.34</b>

Source : State Level Bankers' Committee

**Table A 9.2 : District-wise Achievement Kisan Credit Card (NEW and RENEW) Numbers**

District	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Patna	18048	26233	60143	50522	54949	54317	72920	59086	62576
Nalanda	16175	22281	34946	42065	46476	63100	52078	54166	72243
Bhojpur	15918	27575	50759	59020	84537	86527	96033	90502	83704
Buxar	6775	10916	38447	32040	40533	79492	64988	51356	44428
Rohtas	19590	33141	56523	57664	76546	95856	78681	72125	93399
Kaimur	12094	24102	31488	29355	44165	63615	57317	63940	68044
Gaya	16371	52571	40101	41012	60645	85438	95487	86967	104281
Jehenabad	5348	12261	16095	25154	26430	18910	16732	14201	22675
Arwal	2932	4443	6691	8363	12753	13458	11095	13466	18684
Nawada	11217	25992	24837	28980	23731	36426	44285	42456	76641
Aurangabad	8638	28077	42494	42353	54786	67639	31695	54098	73834
Saran	14127	24233	32706	34841	39064	66255	72475	61317	91856
Siwan	14545	27750	38536	34165	36959	72170	55790	71073	97309
Gopalganj	13396	29824	42890	53928	60448	82846	97366	98799	88548
West Champaran	32431	47446	70194	75740	97812	86741	104247	98925	136403
East Champaran	26210	45138	74330	82860	104239	129858	147007	156795	160341
Muzaffarpur	20050	36197	61028	58142	71134	91760	96007	144851	142776
Sitamarhi	24403	19944	34675	30368	43467	62523	66492	47519	55148
Sheohar	2617	6646	6315	12123	7682	11305	27414	9874	49785
Vaishali	17144	30629	38763	45605	66709	82387	88732	80246	85168
Darbhanga	8011	20738	43993	26360	41682	56134	52021	39350	41375
Madhubani	15598	35420	38578	55261	72368	101067	95600	97564	129106
Samastipur	22783	38363	79075	80395	95785	94512	155580	154742	173892
Begusarai	14712	20694	57130	72811	89799	111447	152526	134323	134012
Munger	5608	10756	16559	16701	28053	19329	36372	36215	44197
Shiekhpora	3532	7882	6036	5216	12738	13617	12604	21867	13445
Lakhisarai	4587	10054	11401	15848	18074	16615	35836	39826	37066
Jamui	7382	13458	15779	22590	28020	30842	50855	64318	64644
Khagaria	9296	12375	30313	39919	57270	45848	69174	78560	76257
Bhagalpur	11477	22734	44740	37938	48747	45360	66863	65704	72439
Banka	4282	9463	21232	22829	36202	34782	36685	36018	47770
Saharsa	7250	13835	21763	18904	25224	32859	41012	47163	45351
Supaul	6296	57130	22830	16790	27256	40505	45482	46709	43301
Madhepura	6056	11620	12307	14707	24802	29932	36537	25387	20350
Purnea	13477	27434	51210	30384	55209	64566	64262	61973	68562
Kishanganj	7393	13680	14645	20790	36764	44189	51111	46034	54160
Araria	8558	16384	20225	29469	47758	54054	82371	53922	60216
Katihar	12213	19833	29760	31618	48620	45505	53031	49916	60839
<b>Bihar</b>	<b>466540</b>	<b>897252</b>	<b>1339537</b>	<b>1402830</b>	<b>1847436</b>	<b>2231786</b>	<b>2514763</b>	<b>2471353</b>	<b>2814830</b>

Source : State Level Bankers' Committee

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## CHAPTER VIII

### URBAN DEVELOPMENT

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The challenges of rural development receive more attention in India for the understandable reason that even now the majority of the population live in rural areas. This tendency is present even more in Bihar where the rural population accounts for nearly 90 percent of the population. But a balanced approach to development demands that the needs of the urban population should also be addressed. Further, one may also note that most of the secondary and tertiary sector activities which generally contribute more to the growth process are all located in the urban areas. The challenge of urban development in Bihar has two components — first, providing adequate urban services in the existing towns and cities and, second, increasing the pace of urbanisation which implies either geographical expansion of the existing towns or gradual transformation of large rural habitations into new towns. Bihar has witnessed a fast growth of its economy in the recent decade, particularly the growth of many secondary and tertiary sectors. This would have normally caused higher urbanisation in the state, but the census figures of 2001 and 2011 do not indicate such a trend. The state government is trying to meet this challenge by implementing a number of programmes, some of them in association with the central government. The state government has also been allocating more resources for urban development in the recent years.

#### **8.1 Level of Urbanisation**

The level of urbanisation in Bihar, according to 2011 census, is only 11.3 percent, compared to the national average of 31.2 percent (Table 8.1). Bihar is indeed the least urbanised state in the country. The state accounts for 8.6 percent of India's total population, but it has only 3.1 percent of country's total urban population. Apart from recording a low 'level' of urbanisation, Bihar has also recorded a low 'pace' of urbanisation. Between 2001 and 2011, the level of urbanisation in India has increased by 3.4 percentage points, from 27.8 percent (2001) to 31.2 percent (2011). In contrast, such increase was only 0.8 percentage point in Bihar, from 10.5 percent (2001) to 11.3 percent (2011). This slow pace of urbanisation in Bihar is indeed a long term phenomenon. Between 1961 and 2011, a span of half a century, the level of urbanisation in Bihar has increased by only 3.9 percentage point, from 7.4 percent (1961) to 11.3 percent (2011). For the entire country, this increase was no less than 13.2 percentage point, from 18.0 percent (1961) to 31.2 percent (2011).

Between 2001 and 2011, the number of towns in Bihar has increased from 130 to 199 (Table 8.2). The emergence of 69 additional towns over a decade is undoubtedly a positive

development, but many of these new towns are indeed small, having a population of less than 10 thousands. Out of a total of 199 towns in Bihar, only 26 towns have a population of at least one lakh where one could expect the growth of secondary and tertiary activities. Patna, as the capital city, has maintained its primary in the state's urban system, as it accounts for 14 percent of state's urban population, followed by Gaya which has a share of 4 percent.

**Table 8.1 : Urbanisation Trend in Bihar and India**

Year	Urban Population (lakh)		Level of Urbanisation	
	India	Bihar	India	Bihar
1961	789.4	25.8	18.0	7.4
1971	1091.1	32.4	18.2	7.7
1981	1594.6	50.1	23.3	9.6
1991	2171.8	64.9	25.7	10.0
2001	2853.5	86.6	27.8	10.5
2011	3771.1	117.6	31.2	11.3

Source : Census of India, RGI, GOI

**Table 8.2 : Distribution of Urban Population by Size Class of Town**

Size Class	Number		Population (million)		Growth Rate of Population
	2001	2011	2001	2011	
>1 million	1	1	1.43	1.68	1.6
100,000 - 1 million	18	25	3.42	5.07	3.9
50,000 - 100,000	19	29	1.37	1.88	3.1
20,000 - 50,000	67	75	2.10	2.49	1.7
10,000 - 20,000	19	22	0.31	0.33	0.8
5,000 - 10,000	6	38	0.04	0.26	18.2
< 5,000	-	9	-	0.03	-
Total	130	199	8.68	11.76	3.06

Source : Census of India, RGI, GOI

The level of urbanisation across the districts of Bihar varies considerably (Table 8.3). The urbanisation in the district of Patna, which obviously includes the state capital of Patna, is the highest (43.1 percent). Next, there are only five more districts where the urbanisation is more than 15 percent — Nalanda (15.9 percent), Begusarai (19.2 percent), Munger (27.8 percent), Sheikhpura (17.1 percent) and Bhagalpur (19.8 percent). There are no less than seven districts (Kaimur, Sheohar, Madhubani, Samastipur, Banka, Supaul and Madhepura), in each of which the

level of urbanisation is less than 5 percent. From the districtwise figures for urbanisation, it is also quite apparent that the level of urbanisation is much lower in north Bihar, compared to south Bihar.

**Table 8.3 : Districtwise Urbanisation in Bihar (2001 and 2011)**

Districts	Urbanisation		Districts	Urbanisation	
	2001	2011		2001	2011
Patna	41.6	43.1	Darbhanga	8.1	9.7
Nalanda	14.9	15.9	Madhubani	3.5	3.6
Bhojpur	13.9	14.3	Samastipur	3.7	3.5
Buxar	9.2	9.6	Begusarai	4.6	19.2
Rohtas	13.3	14.5	Munger	27.9	27.8
Kaimur	3.3	4.0	Sheikhpura	15.6	17.1
Gaya	13.7	13.2	Lakhisarai	14.7	14.3
Jehanabad	12.1	12.0	Jamui	7.4	8.3
Arwal	—	7.4	Khagaria	5.9	5.2
Nawada	7.7	9.7	Bhagalpur	18.7	19.8
Aurangabad	8.4	9.3	Banka	3.5	3.5
Saran	9.2	8.9	Saharsa	8.3	8.2
Siwan	5.5	5.5	Supaul	5.1	4.7
Gopalganj	6.1	6.4	Madhepura	4.5	4.4
W. Champaran	10.2	10.0	Purnea	8.7	10.5
E. Champaran	6.4	7.9	Kishanganj	10.0	9.5
Muzaffarpur	9.3	9.9	Araria	6.2	6.0
Sitamarhi	5.7	5.6	Katihar	9.2	8.9
Sheohar	4.1	4.3			
Vaishali	6.8	6.7	<b>Bihar</b>	<b>10.5</b>	<b>11.3</b>

Source : Census of India, RGI, GOI

Besides promoting urbanisation, another agenda of the state government is to improve the basic services in the urban areas. This is because one of the reasons for low urbanisation in Bihar is the absence of adequate basic services in the urban areas like water supply and drainage system. This is revealed through the data from 2011 census (Table 8.4). Out of total urban households, only 16.7 percent had the facility of piped water within their premises. Even in the state capital Patna, this facility was available for about only half the households. In smaller towns, it was extremely low. Similarly, percentage of households with their latrines connected to a piped sewer was again low at 7.2 percent. The availability of the facility of a covered drainage was wider, but not

universal. For the entire urban areas in Bihar, the drain coverage was about 30 percent, the highest being in Patna town where the coverage was 61 percent.

**Table 8.4 : Access to Basic Urban Services in Bihar by Size Class of Towns (2011)**

City Size	Households with tap water within premises (%)	Households with access to piped sewer connected to latrines (%)	Households connected to covered drainage (%)
>1 million	50.8	19.6	61.3
100,000 – 1 million	13.1	6.1	29.2
50,000 – 100,000	8.7	3.3	18.8
20,000 – 50,000	4.1	3.0	16.3
10,000 – 20,000	5.1	2.9	13.1
5000 – 10,000	3.1	3.4	17.3
<5000	5.1	2.1	12.9
Bihar Urban	16.7	7.2	29.9

Source: Census of India 2011

The state government has tried to improve the basic services in the urban areas through a number of schemes, as is evident from a recent survey, conducted by the Department of Urban Development and Housing. This survey has covered four components of the basic urban services — piped water supplies, toilets, roads and drainage. This data is now available for three types of urban centres — Municipal Corporations, Municipal Councils and Nagar Panchayats. This survey had a sample of 19.08 lakh households (Tables 8.5 and 8.6).

As regards piped water, the coverage is rather low at 18 percent, taking into account all three types of urban habitations. Even for larger towns with Municipal Corporations, the coverage of piped water is barely one-third of the households (Table 8.5). However, the status of basic services is much better with regard to toilets, as its coverage is about 58 percent. In larger towns, this coverage is wider at 77 percent.

**Table 8.5 : Availability of Piped Water and Toilet in Urban Areas of Bihar**

	Type of Towns			
	Municipal Corporations	Municipal Councils	Nagar Panchayats	Total
No. of households surveyed (thousand)	727.2	652.4	528.6	1908.2
Percentage of households with piped water	33.7	10.9	3.8	17.6
Percentage of households with toilets	76.7	57.8	34.1	58.4

Source : Department of Urban Development and Housing, GOB

For easy movements within a town, it needs to have adequate roads of good quality. Table 8.6 presents the status of roads in the towns of Bihar. One may consider concrete roads, paved block roads and Water Bounded Macadam (WBM) roads as quality roads in a town, and such roads account for 69 percent of the roads in the urban areas. Quite expectedly, the coverage of quality roads is even higher at large towns (77 percent). However, the spread of quality roads in smaller towns having a Municipal Council or Nagar Panchayats is rather low at below 60 percent and this situation needs to be improved. As regards the drainage facility (Table 8.6), one again notices that its coverage is not universal even in larger towns where roads with no drain or kutcha drain account for about 30 percent of the roads.

**Table 8.6 : Status of Roads and Drains in Urban Areas of Bihar**

	Type of Towns			
	Municipal Corporations	Municipal Councils	Nagar Panchayats	Total
Percentage Distribution of Roads by Type				
Kutcha Roads	11.0	25.0	24.0	16.0
Tar Roads	5.0	11.0	16.0	8.0
Concrete Roads	72.0	58.0	50.0	65.0
Paved Block Roads	4.0	1.0	1.0	3.0
WBM Road	1.0	1.0	1.0	1.0
Brick Road	7.0	4.0	9.0	7.0
Total	100.0	100.0	100.0	100.0
Percentage Distribution of Roads by Existence of Drains				
No drain	21.5	49.6	68.4	36.0
Kutcha drain	9.4	8.5	5.5	8.4
Pucca drain	67.4	41.4	25.9	54.4
Hume pipe	1.7	0.5	0.2	1.2
Total	100.0	100.0	100.0	100.0

Source : Department of Urban Development and Housing, GOB

## 8.2 Expenditure on Urban Development

In view of the absence of adequate basic services in the urban areas, the state government is paying more attention to urban development in the recent years. In 2015-16 the total expenditure of the state government on urban development and housing was Rs. 3134 crore, compared to only Rs. 1290 crore in 2010-11. This implies an annual growth rate of 21.9 percent (Table 8.7). If one segregates the total expenditure between housing and urban development, it is noticed that the expenditure on urban development has registered an even higher growth rate of 28.9 percent,

indicating the state government's deep attention to this sector in recent years. The figures in Table 8.7 also indicate that the actual expenditure on urban development and housing as a percentage of budget allocations has been higher in recent years; in 2015-16, it was at a satisfactory level of 86.2 percent. For urban development, this ratio was even higher at 94.9 percent.

**Table 8.7 : Expenditure pattern of Urban Development and Housing in Bihar**

(in Rs. crore)

	Budget Allocations			Actual Expenditures		
	Housing	Urban Development	Total	Housing	Urban Development	Total
2010-11	796	1744	2541	785 (98.6)	505 (29.0)	1290 (50.8)
2011-12	846	1233	2079	823 (97.3)	572 (46.4)	1395 (67.1)
2012-13	967	1336	2303	827 (85.5)	1139 (85.3)	1966 (85.4)
2013-14	1064	1784	2849	927 (87.1)	1364 (76.4)	2291 (80.4)
2014-15	3826	2108	5934	1598 (41.8)	1455 (69.0)	3053 (51.5)
2015-16	1897	1737	3634	1486 (78.3)	1649 (94.9)	3134 (86.2)
<b>CAGR</b>	<b>29.2</b>	<b>5.5</b>	<b>15.9</b>	<b>16.3</b>	<b>28.9</b>	<b>21.9</b>

Source : Finance Accounts, Auditor General, Bihar

### 8.3 Municipal Finances

The state government has been collecting data on municipal finances for 28 largest towns in the state. The relevant data is presented in Table 8.8. The revenue grants comprise a very large part of total revenue income of the municipal bodies. For example, in 2015-16, out of a total income of Rs. 683.10 crore, the revenue grants accounted for Rs. 454.90 crore (66.6 percent). Unless the self-generated income of the municipal bodies grows fast, their heavy dependence on the revenue grants will continue for many more years. In the recent past, the self-generated income of the local bodies has grown only at a modest rate of only 11.3 percent. In case of expenditure, the major component is establishment expenditure. In 2015-16, the expenditure on establishment (Rs. 294.56 crore) was no less than 62.8 percent of the total expenditure (Rs. 468.79 crore). In general, the municipal bodies in Bihar, as elsewhere in India, is highly dependent on external support. This is clearly indicated by some key financial indicators, as presented in the bottom of Table 8.8. For example, the self-generated income accounts for barely one-fourth of the total revenue income. Consequently, such self-generated income is able to meet barely half of the establishment expenditure of the municipal bodies. But, because of external assistance, the per capita expenditure in municipal bodies has recorded a modest growth rate, for both revenue and capital components.



**Table 8.8 : Municipal Finances for 28 Largest Towns in Bihar**

(Rs. lakh)

Indicators	2012-13	2013-14	2014-15	2015-16	CAGR
<b>Revenue Income</b>					
(a) Self - Generated Income	10325	12389	11500	15144	11.3
(i) Holding Tax	6471	7753	7450	11604	18.7
(ii) Other Taxes	1381	1417	601	-	-34.0
(iii) Non- Taxes	2473	3219	3448	3540	12.1
(b) Assigned Income	8774	11628	15185	7496	-2.0
(c ) Revenue Grants	14329	17415	22698	45490	45.2
(d) Other Income/ Receipts	7113	8407	194	180	-77.2
<b>Total</b>	<b>40541</b>	<b>49838</b>	<b>49577</b>	<b>68310</b>	<b>16.9</b>
<b>Revenue Expenditure</b>					
(a) Establishment	20334	21384	22767	29456	12.5
(b) Programme	1907	2956	2980	9723	63.1
(c ) Operation/ Maintenance	3768	3199	4855	6411	22.3
(d) Finance / Interest	131	203	237	99	-6.6
(e) Others	524	1716	580	1191	14.8
<b>Total</b>	<b>26665</b>	<b>29457</b>	<b>31419</b>	<b>46879</b>	<b>19.2</b>
Capital Grants	20231	25407	32350	-	26.5
<b>Key Indicators</b>					
Self-Generated Income/ Revenue Income (Percentage)	25.5	24.9	23.2	23.9	-
Self-Generated Income/ Establishment Expenditure (Percentage)	50.8	57.9	50.5	56.8	-
Per Capita Revenue Expenditure (Rs.)	876	949	1012	1421	16.4
Per Capita Capital Expenditure (Rs.)	308	591	632	586	22.1

Source : Department of Urban Development and Housing, GOB

## 8.4 Urban Development Programmes

To improve the living conditions in urban areas, a number of development programmes are now being implemented by the state government. Most of these programmes are being jointly funded by the central and the state government. This section presents the details of important urban development programmes — (i) Urban Infrastructure and Governance (UIG), (ii) Urban

Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), (iii) Namami Gange Scheme (NSG), (iv) Integrated Housing and Slum Development Plan (IHSDP), (v) Rajiv Awas Yojana (RAY), (vi) Employment through Skill Training and Placement (EST&P), (vii) Support to Urban Street Vendors (SUSV), (viii) Swachh Bharat Mission (SBM) and (ix) Smart City Mission.

Urban Infrastructure and Governance (UIG) : Under this programme, two urban centres of Bihar are included — Patna Urban Agglomeration (Patna, Danapur, Khagaul and Phulwarisharif) and Bodh Gaya. The objective of the programme is to improve the solid waste management (SWM), water supply and sewerage pattern in the two towns. Although the programme is planned to be over by March, 2017, its financial achievement till December, 2016 is rather low at 31 percent (Table 8.9). The financial achievement is high for only three schemes under the project — Khagaul water supply scheme (106 percent), Bodh Gaya water supply scheme (73 percent) and Bodh Gaya sewerage scheme (82 percent).

**Table 8.9 : Programmes under Urban Infrastructure and Governance (Estimated Cost)**

Name of Scheme	Total Project Cost (Rs. lakh)	Total Expenditure (Rs. lakh)	Financial Achievement (%)
SWM for Danapur, Khagaul, Phulwarisharif	1155.81	345.9	29.9
Khagaul water supply scheme	1315.43	1395.62	106.1
Danapur water supply scheme	6896.45	1723.76	25.0
Phulwarisharif water supply scheme	6896.45	2138.83	31.0
Patna water supply scheme	42698.00	6993.65	16.4
SWM for Patna	3695.40	780.63	21.1
Bodhgaya water supply scheme	3355.72	2433.81	72.5
Bodhgaya sewerage scheme	9594.34	7903	82.4
Total	75607.60	23715.2	31.4

Note : The scheme will end on 31-03-2017

Source : Department of Urban Development and Housing, GOB

Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) : In all, 11 schemes were taken up under this programme in Bihar. The total project cost was Rs. 26, 114 crore, but an amount of only Rs. 13,108 crore was spent till December, 2016, implying a financial achievement of 50 percent (Table 8.10). The schemes for which the financial achievement was relatively higher were all for road and drainage in several small and medium towns in Bihar.

**Table 8.10 : Details of Urban Development Schemes under UIDSSMT**

Name of Scheme	Total Project Cost (Rs. lakh)	Total Expenditure (Rs. lakh)	Financial Achievement (%)
Road and drainage construction in Fatuha	759.00	666.29	87.8
Road and drainage construction in Murliganj	1144.00	768.44	67.2
Road and drainage construction in Narkatiyaganj	4713.00	2445.99	51.9
Road and drainage construction in Rosera	2921.32	2243.62	76.8
Road and drainage construction in Barbigaha	1573.00	1470.57	93.5
Road and drainage construction in Bhabua	1088.00	915.77	84.2
Road and drainage construction in Bakhtiyarpur	511.00	315.32	61.7
Road and drainage construction in Lalganj	1263.00	1244.10	98.5
Road and drainage construction in Chakia	1285.00	1285.00	100.0
Water supply scheme in Muzaffarpur	9872.25	1519.23	15.4
SWM in Arrah	983.99	233.36	23.7
Total	26113.56	13107.69	50.2

Note : The scheme will end on 31-03-2017

Source : Department of Urban Development and Housing, GOB

Namani Gange Scheme : This programme of the central government targets town located along the river Ganga, for cleaning and rejuvenation of the river. There are 32 towns identified in Bihar for implementation of the scheme. The Detailed Project Reports (DPR) are being prepared in these towns for Interception and Diversion Sewers, Solid Waste Management, River Front Development, Crematoria, Dhobi Ghats and Community Toilets. A summary of the status of the scheme is presented in Table 8.11. Between 2014-15 and 2015-16, there has been a small decrease in project costs by Rs. 51.30 crore.

**Table 8.11 : Details of Namami Gange Scheme**

Sectors	2014-15		2015-16	
	Number of Towns	Cost of Projects (Rs. crore)	Number of Towns	Cost of Projects (Rs. crore)
Solid Waste Management	17	538.19	17	617.17
Sewerage network	14	2950.66	17	3416.67
Interception and Diversion of Drainage including STP	16	1707.97	15	1097.43
River Front Development	8	1250.21	8	1264.28
Crematoria	11	85.58	11	85.58
Dhobi Ghats and Community Toilets	11	88.79	11	88.71
Total	—	6621.14	—	6569.84

Source : Department of Urban Development and Housing, GOB

**Integrated Housing and Slum Development Plan (IHSDP)** : The objective of this programme is to improve the living conditions of the slum dwellers, through construction of new houses as well as rehabilitation of existing dilapidated houses. The central government has sanctioned 30 schemes in 26 towns of Bihar. The total project cost of the scheme is Rs. 75,789 lakh, of which the share of the central government is Rs. 38,079 lakh (50 percent) (Table 8.12). The central government has till now released Rs. 23,351 lakh, about 61 percent of its share. The total expenditure till December, 2016 has been Rs. 48,533 lakh, which is 64 percent of the total project cost. This scheme is also planned to end in March, 2017.

**Table 8.12 : Progress of Work under IHSDP**

Progress Indicators	Number / Amount
Total Towns Covered	26
Total Sanctioned Scheme	30
Total Sanctioned Dwelling Units	23,945
Total Project Cost	Rs. 75,788.79 lakh
Total Central Share	Rs. 38,078.89 lakh
Total State Share	Rs. 37,709.41 lakh
Central Share Released	Rs. 23,350.66 lakh
State Share Released	Rs. 22,416.95 lakh
Total Expenditure till December 2016	Rs. 48532.74 lakh

Note : The scheme will end on 31/03/2017

Source : Department of Urban Development and Housing, GOB

**Rajiv Awas Yojana (RAY)** : Launched in 2011, the objective of this programme is to create towns which are free of slums. All the district headquarters are included under his programme and the state government has already prepared 29 Detailed Project Reports (DPR) for 27 towns. However, till date, the Central Sanctioning and Monitoring Committee has approved 7 of these proposals which are located in Patna, Darbhanga, Katihar and Purnea. Out of a total project cost of Rs. 45,465 lakh, the state government has spent only Rs. 9937 lakh which indicates a financial achievement of 21.9 percent (Table 8.13). In 2015, this scheme has been included under the new programme 'Housing for All'.

**Table 8.13 : Progress of Work under Rajiv Awas Yojana (RAY)**

Indicators	Number / Amount
Total Towns Covered	5
Total Sanctioned Scheme	7
Total Sanctioned Dwelling Units	11,276
Total Project Cost	Rs. 45,465.40 lakh
Total Central Share	Rs. 29,771.86 lakh
Total State Share	Rs. 15,693.51 lakh
Central Share Released	Rs. 11,450.73 lakh
State Share Released	Rs. 3,464.60 lakh
Total Expenditure till December 2016	Rs. 9937.34 lakh

Source : Department of Urban Development and Housing, GOB

Employment through Skill Training and Placement (EST & P) : This programme is now being implemented in 42 towns of Bihar. Its objective is to provide skill training to BPL youth and help them in placements. It has a provision of tracking the trained youth for one year. The Department has identified a panel of experts for skill training and contracted 34 agencies for this purpose. It has also identified 16 trades and 20 training modules for skill training. The list has been shared with urban local bodies (ULB) who can also directly approach the agencies for skill training. The ULBs have till date identified 36,062 urban youth for the programme. The Department has also made arrangement for certification of the training programme, in association with National Council of Vocational Training (NCVT). The progress under this programme in 2015-16 is presented in Table 8.14.

**Table 8.14 : Progress of Training under EST & P**

Population Category	Annual Target	Number of Persons	
		Undergoing Training	Completed Training
SC	15750	1800	2293
ST	2250	492	360
Others	57000	8184	14401
Total	75000	10476	17054

Source : Department of Urban Development and Housing, GOB

Support to Urban Street Vendors (SUSV) : This programme aims at organising street vending activities in 42 selected towns of Bihar. It first proposes to conduct bio-metric survey of street

vendors, issue them I-cards and then facilitate their linkage with different welfare schemes. In particular, the programme promotes financial inclusion, training and insurance coverage for identified street vendors across the state. Although issuing of I-cards was not possible, the programme has promoted considerably opening of bank accounts by the street vendors, as well as their inclusion under insurance scheme. The details of the progress of the scheme in 2014-15 and 2015-16 are presented in Table 8.15.

**Table 8.15 : Progress of Work under SUSV**

Programme/ Monitoring Parameter	Annual Target	Progress	Annual Target	Progress
	2014-15		2015-16	
No. of cities for Vendor Survey	42	41	42	42
No. of cities which completed Street Vendor Survey	42	41	42	19
No. of street vendors identified in surveyed cities	1,00,000	82,352	1,00,000	55781
No. of street vendors issued ID cards	5000	0	1,00,000	0
No. of basic Saving Accounts opened for street vendors	15000	8917	15,000	14103
No. of financial literacy camps for street vendors	42	0	42	33
No. of training programmes for street vendors	0	0	125	67
No. of street vendors to be trained under Capacity Building	0	0	10,000	1326
No. of Credit Cards to street vendors	2	0	10,000	0
No of street vendors to be linked to insurance scheme	0	0	5000	19654

Source : Department of Urban Development and Housing, GOB

**Swachh Bharat Mission (SBM)** : This is one of the flagship projects launched by the central government in 2014 to improve the sanitation standards in the country. With Bihar facing an acute problem of open defecation, the state government has joined the central government in eliminating this problem. Bihar has set a target for the construction of 7.5 lakh toilets in the urban areas. The estimated expenditure is Rs. 602.0 crore, to be spread over four years. Till date, a sum of Rs. 241.0 crore has already been disbursed to 140 towns in the state. The physical progress is as follows — (a) Individual toilets — 31,765 already constructed and 60,743 are under construction, (b) Community toilets — 35 constructed and 70 under construction, and (c) Public toilets — 30 constructed and 18 under construction. For individual toilets, the state government provides Rs. 4000 to each family, in addition to the central assistance of Rs. 8000.

Smart City Mission (SCM) : The Smart City Mission is an urban renewal programme initiated by the central government in June 2015. The main aim of the program is to improve infrastructure and to create sustainable and citizen friendly urban cities. A smart city is defined as a city which is highly developed in terms of infrastructure and communications. At its launch in 2015, the central government had identified 100 towns across India to be under this programme. Three cities in Bihar were recognized for this initiative — Muzaffarpur, Bhagalpur and Biharsharif. In the first round of selection the central government selected 20 cities, but none in the state of Bihar.

In the second round, Bagalpur has been selected as one of the cities under this programme. There are two interventions proposed — area based development in a pocket of the city covering 613 acres and a pan city initiative. The area based development includes several pilot interventions that can then be scaled up later. The pan city intervention proposes an intelligent transport system and intelligent solid waste management. The smart city proposal is to be implemented at a cost of Rs. 1309.30 crore, with Rs. 1000 crore shared equally between the state government and central government, Rs. 214.81 crore through convergence with various schemes, and the remaining Rs. 94.49 crore through PPP funding.

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## CHAPTER X

### HUMAN DEVELOPMENT

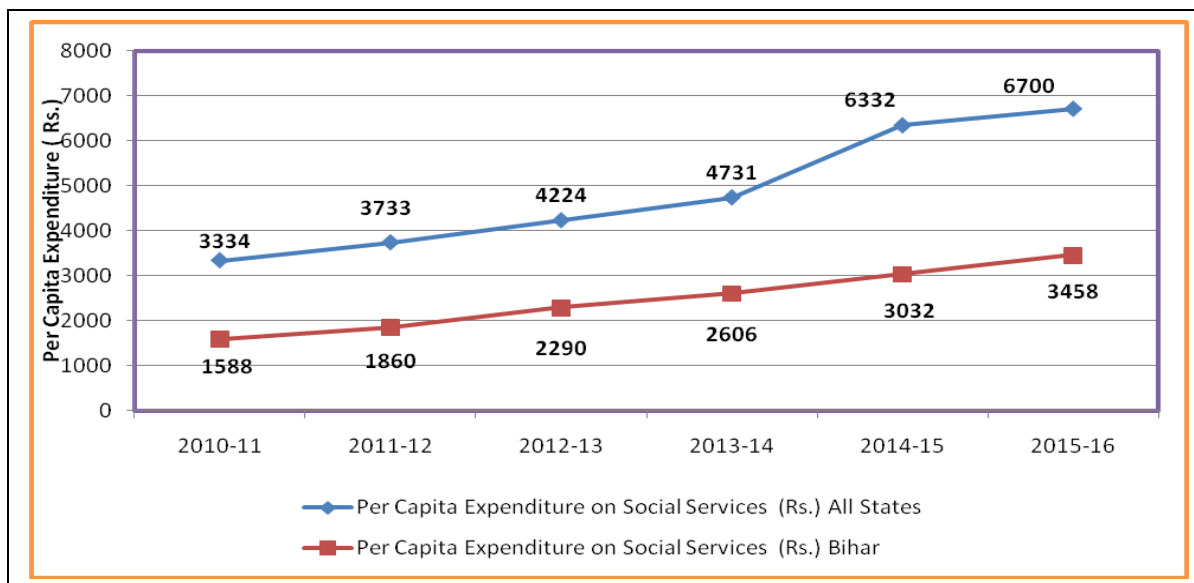
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The pace of economic growth in Bihar, as discussed in Chapter 1, has been quite high. But this growth story may lose all its significance, unless it is translated into human development. In this background, one may note with satisfaction that the growth process in Bihar has indeed been inclusive, not just in terms of reduction of poverty, but in term of human development as well. Over the recent past, the state has made major strides in human development. Today, people are living longer in Bihar, more children are going to school and more people have access to clean water and basic sanitation. All these are important facets of human development. The progress in human development is evident through many measures of human development — those for health, education, living conditions, or implementation of various welfare programmes for marginalised sections of the population. Very recently the state government has emphatically underlined its human development agenda through its seven commitments (Saat Nischay). These seven commitments are — (i) Arthik Hal, Yuvaon Ka Bal (Economic solution is the strength of the youth), (ii) Aarakshit Rozgar Mahilaon Ka Adhikar (Assured employment is the right of the women), (iii) Har Ghar Bijli Lagatar (Constant supply of electricity for each household), (iv) Har Ghar Nal Ka Jal (Running tap water for every household), (v) Ghar tak Pakki Gali-Naliyan (Paved road and drains for every house), (vi) Shauchalay Nirman Ghar Ka Samman (Construction of toilets makes decent houses) and (vii) Awsar Badhe, Aage Padhe (Better facilities for higher education). The present chapter discusses the status of human development in Bihar under seven Sections — Health, Drinking Water and Sanitation, Education (including Art, Culture and Youth), Social Welfare, Women Empowerment, Labour Resources and Welfare, and Social Security for Old and Disabled.

During the last five years, the state government has enhanced its development expenditure and is utilizing 35 percent of its total expenditure on social services. In consequence, the progress in human development has been substantial in the state, particularly in the fields of education and health, the two most important components of human development. Because of limited resources of the state government, the Per Capita Development Expenditure (PCDE) in Bihar has been low compared to the national average. However, during the last five years, the PCDE of Bihar has grown at 16.4 percent, nearly the same rate (17.1 percent) at which it has grown at all-India level (Table 10.1).



**Chart 10.1 : Trend of Per Capita Expenditure on Social Services**



**Table 10.1 : Trend of Social Services Expenditure**

Year	Total Expenditure on Social Services (Rs. crore)		Total Expenditure (Rs. crore)		Percentage share of Social Services in Total Expenditure		Per Capita Expenditure on Social Services (Rs.)	
	All States	Bihar	All States	Bihar	All States	Bihar	All States	Bihar
2011-12	459980	19536	5194730	60182	8.85	32.46	3733	1860
2012-13	528655	24438	6152788	69207	8.59	35.31	4224	2290
2013-14	600231	28253	6185471	80405	9.70	35.14	4731	2606
2014-15	813116	33386	5655232	94698	14.38	35.26	6332	3032
2015-16	871411	38684	6043691	112328	14.42	34.44	6700	3458

Source : State Finances, A Study of Budgets, RBI & Budget Documents, GoB

## 10.1 Health

Health is an important component of human development and commands great significance for the welfare of the population. Thus, health has been given due priority by the state government. The specific activities undertaken to improve basic health services are — decentralisation of health services, better infrastructure, provision of drugs and equipment, provision of manpower, improved inter-sectoral coordination, monitoring and evaluation, and other innovative approaches. Most of the people of Bihar, as elsewhere in India, depend on public health facilities. In recent years, Bihar has made significant progress in health services and health status, which may be attributed to increased expenditure on health, expansion of health infrastructure, as well as constant monitoring of the health services. However, despite substantial

improvement, the health sector in Bihar still confronts challenges in terms of wide social and regional disparities.

The healthcare system has broadly two aspects — preventive and curative healthcare. The former includes diet, hygienic environment, sanitation, access to safe drinking water, etc. On the other hand, curative healthcare includes availability of health facilities that ensure successful healing. In this section, both these aspects of healthcare will be discussed.

### Selected Health Indicators of Bihar

Bihar has witnessed remarkable improvement in health indicators in recent years. The Life Expectancy at Birth (LEB) reflects the overall mortality level of a population. The relevant data on this indicator, both for Bihar and India, has been presented in Table 10.2. It is evident from the table that the gap between India and Bihar for LEB which was 0.3 years in 2006-10 has become negative (-0.2 years) in 2010-14, indicating a higher LEB for Bihar. This overall improvement is basically because of improvement in LEB for females in Bihar. This is really a major achievement in health sector. When one compares the LEB for male and female, it is usually found to be higher for females, because of biological reasons. It is heartening to note that Bihar confirms this pattern, as the LEB for male in Bihar was lower than that of females, both in 2006-10 and 2010-14.

**Table 10.2 : Life Expectancy at Birth**

State/India	2006-10			2010-14		
	Male	Female	Total	Male	Female	Total
Bihar	65.5	66.2	65.8	67.8	68.4	68.1
India	64.6	67.7	66.1	66.4	69.6	67.9

Source : Sample Registration System (SRS), Office of the Registrar General, India

Other selected indicators of health for which there exists comparable data are — Crude Birth Rate (CBR), Infant Mortality Rate (IMR), Child Mortality Rate (CMR) and Total Fertility Rate (TFR). Table 10.3 presents the relevant data for these indicators for Bihar and India. For Crude Birth Rate (CBR), the figures are persistently higher for Bihar; in 2014, it was 25.9 for Bihar, compared to 21.0 for India, registering a difference of 4.9. Thus, demographic transition experienced by many other states in India is still absent in Bihar. For IMR, the state figures have declined from 44 in 2011 to 42 in 2014. But the decline in India (44 in 2011 to 39 in 2014) is higher. In other words, the IMR was equal in 2011 for Bihar and India, but in 2014, the rate in Bihar is higher. A similar trend is also noticed for CMR in Bihar and India. This is a indeed a matter of concern. In case of Total Fertility Rate (TFR), there is a rapid decline from 3.6 in 2011 to 3.2 in 2014. For India, the TFR was already low in 2011 (2.4), and it has declined only

marginally in 2014 (2.3). If the pace of decline in TFR in Bihar continues in the future years, the much needed demographic transition will happen in the state in about ten years.

**Table 10.3 : Selected Health Indicators for Bihar and India**

	Indicators	Crude Birth Rate	Infant Mortality Rate	Child Mortality Rate	Under-Five Mortality Rate	Neo-Natal Mortality Rate	Total Fertility Rate	Total Marital Fertility Rate
<b>India</b>								
2014	Total	21.0	39	11	45	26	2.3	3.9
	Rural	22.7	43	12	51	30	2.5	4.0
	Urban	17.4	26	6	28	15	1.8	3.5
2013	Total	21.4	40	11	49	28	2.3	4.4
	Rural	22.9	44	12	55	31	2.5	4.5
	Urban	17.3	27	6	29	15	1.8	4.2
2012	Total	21.6	42	11	52	29	2.4	4.4
	Rural	23.1	46	13	58	33	2.6	4.5
	Urban	17.4	28	7	32	16	1.8	3.9
2011	Total	21.8	44	12	55	31	2.4	4.3
	Rural	23.3	48	14	61	34	2.7	4.4
	Urban	17.6	29	7	35	17	1.9	3.8
<b>Bihar</b>								
2014	Total	25.9	42	12	53	27	3.2	4.3
	Rural	26.9	43	13	54	29	3.3	4.4
	Urban	19.9	37	9	43	13	2.4	3.9
2013	Total	27.6	42	11	54	28	3.4	5.7
	Rural	28.3	42	12	56	29	3.5	5.7
	Urban	21.5	33	8	37	11	2.5	4.9
2012	Total	27.7	43	11	57	28	3.5	5.4
	Rural	28.4	44	12	58	29	3.6	5.5
	Urban	21.6	34	8	39	12	2.5	4.6
2011	Total	27.7	44	12	59	29	3.6	5.2
	Rural	28.4	45	13	61	31	3.7	5.3
	Urban	21.7	34	9	41	12	2.6	4.6

Source : Office of the Registrar General, India.

### Health Infrastructure

The provision of good health care infrastructure is an essential component of the health strategy for overall human development. Several steps have been taken by the state government in recent years to improve the health infrastructure and enhance the accessibility and quality of health services in the state. The primary health care infrastructure provides the first level of contact between the population and health care providers. The primary health care infrastructure consists of Primary Health Centres (PHC), Sub-Centres and Additional PHCs (APHC). The secondary healthcare system consists of hospitals where patients from primary health care are referred to for treatment by specialists. The centres for secondary health care include district-level hospitals and Community Health Centres (CHC) at block level. The tertiary healthcare refers to a third level of health care system, in which specialized care is provided to patients, usually on referral from primary and secondary healthcare system. The specialised Intensive Care Units, advanced diagnostic support services and specialized medical personnel are the key features of tertiary healthcare systems.

Table 10.4 indicates the average number of patients visiting government hospitals in Bihar during 2011 to 2015. Due to several initiatives taken by the state government, the functioning of the public health institutions is improving steadily. The average number of patients visiting government hospitals per month was 9317 in 2011, which has increased to 10,476 in 2013, implying an increase of 12 percent. This increase is primarily due to better infrastructure facilities, larger manpower, and proper monitoring of the health institutions. During the next two years, 2014 and 2015, the number of patients has decreased, but this seems to be temporary phenomenon. In 2016, the number of patients has again increased to 10,232.

**Table 10.4 : Monthly Average Number of Patients Visiting Government Hospitals**

Year	2011	2012	2013	2014	2015	2016 (Upto Sept.)
No. of patients visiting government hospitals per month	9317	9863 (5.9)	10476 (6.2)	9871 (-5.8)	9778 (-0.9)	10232 (4.6)

Note : Figures in the parenthesis represent annual increase

Source : State Health Society, GOB

Towards strengthening of the health services, the approach of the state government has been a pragmatic one, with the thrust on improving the functioning of the existing facilities, rather than extension of the facilities. Currently, there are 36 district hospitals, 55 sub-divisional hospitals, 70 referral hospitals, 533 PHCs, 9729 Sub-centres and 1350 APHCs; the last three types add up

to 11,612 health centres. Thus, per lakh of population, there are about 11 health centres in the state (Table 10.5). In 2015, out of 533 block level PHCs, 130 has been upgraded to 30 bedded Community Health Centres (CHC) to strengthen healthcare facilities.

**Table 10.5 : Overall Status of Health Infrastructure**

(Figures in Number)

Year	District Hospital	Referral Hospital	Sub Divisional Hospital	Health Centres				Health centres per ten lakh of population
				PHC	Sub Centre	APHC	Total	
2011	36	70	55	533	9696	1330	11559	11
2012	36	70	55	533	9696	1330	11559	11
2013	36	70	55	533	9696	1330	11559	11
2014	36	70	55	533	9729	1350	11612	11
2015	36	70	55	533	9729	1350	11612	11
2016	36	70	55*	533**	9729	1350	11612	11

Note : \* At 9 places, existing hospitals will be upgraded to SDH

\*\* 130 PHC has been upgraded to 30 bedded CHC

Source : State Health Society, GOB

From the data on the number of health institutions in different districts, as presented in Table A 10.1 (Appendix), it is apparent that there is considerable variation across the districts in terms of the availability of health infrastructure. The average size of population served by a health institution (either a hospital or a health centre) varies from 5.5 thousand in Jamui to as high as 14.6 thousand in Sheohar. The best three districts in terms of availability of health infrastructure are — Jamui (5501), Sheikhpura (5785) and Nawada (5886). The three most disadvantaged districts are — Sheohar (14,583), Sitamarhi (12,727) and East Champaran (12,347).

The availability of quality health services in Bihar varies across the districts, as indicated by two indicators — average number of outpatients visiting hospitals per day and the in-patient bed occupancy rate (Table 10.6). According to the data given for last three years, three districts with the highest number of outpatients visiting hospitals per day in 2015-16 were — Purnea (523), Muzaffarpur (502), and Aurangabad (501). In contrast, three districts with the lowest number of outpatients visiting hospitals per day were — Sheohar (159), Nawada (167), and Jamui (199).

**Table 10.6 : Districtwise Average Number of Outpatients Visiting per Day**

District	Average no. of Outpatient visits per day			In-patient Bed Occupancy Rate		
	2014-15	2015-16	2016-17*	2014-15	2015-16	2016-17*
Patna	323	235	269	53	73	74
Nalanda	335	391	448	131	119	121
Bhojpur	299	275	254	32	33	41
Buxar	258	213	219	82	62	50
Rohtas	297	290	259	71	70	66
Kaimur	256	301	297	88	82	54
Gaya	359	348	355	83	87	23
Jehanabad	441	377	354	80	72	44
Arwal	247	321	263	85	76	24
Nawada	188	167	180	72	77	85
Aurangabad	590	501	524	84	74	48
Saran	379	420	462	101	89	88
Siwan	328	292	326	85	99	73
Gopalganj	240	318	382	77	76	67
W.Champaran	457	255	275	59	52	41
E.Champaran	169	357	398	92	84	74
Muzaffarpur	518	502	514	78	60	18
Sitamarhi	294	240	217	104	94	81
Sheohar	220	159	148	78	78	48
Vaishali	323	402	432	101	101	93
Darbhanga	316	355	343	107	89	38
Madhubani	341	301	344	70	58	52
Samastipur	353	420	363	118	124	118
Begusarai	251	250	267	62	62	69
Munger	303	306	340	105	104	81
Sheikhpura	269	200	160	62	60	66
Lakhisarai	249	266	247	68	70	70
Jamui	214	199	217	49	46	36
Khagaria	489	401	555	128	130	108
Bhagalpur	286	310	318	154	130	126
Banka	385	350	440	94	76	65
Saharsa	297	229	207	78	71	87
Supaul	405	379	375	118	106	80
Madhepura	357	328	392	148	143	126
Purnea	549	523	467	125	122	90
Kishanganj	378	290	295	103	94	94
Araria	347	450	480	98	99	147
Katihar	295	306	364	74	78	81
Bihar	<b>329</b>	<b>323</b>	<b>339</b>	<b>88</b>	<b>84</b>	<b>64</b>

Note : \*Upto September 2016

Source : State Health Society, GOB

The bed occupancy rate indicates the actual utilization of the inpatient health facility for a given time period. Table 10.6 presents the in-patient bed occupancy rate for the last three years for the entire state as well as in all 38 districts. In 2015-16, among the districts, the occupancy rate varied from 33.0 percent (Bhojpur) to 143.0 percent (Madhepura). The demand for health services is so high that in 9 districts, the bed occupancy rates exceed 100 percent. For Bihar as a whole, the bed occupancy rate is 84 percent in 2015-16.

Health workers play a central role in ensuring the appropriate management of all aspects of the health system. The health personnel include — doctors, nurses, Auxiliary Nurse-cum-Midwife (ANM), and Accredited Social Health Activist (ASHA). The availability of such personnel for the entire state is presented in Table 10.7. Four tables in the Appendix present the same data for different districts — Table A 10.2 (Doctors), Table A 10.3 (Nurses), Table A 10.4 (ANM) and Table A 10.5 (ASHA). In 2016-17, against the sanctioned posts of 6261 doctors, 3154 were working indicating a vacancy ratio of about 50 percent. Similarly, for the contractual post of doctors, the vacancy ratio is 63 percent — 852 doctors working in place of 2314 sanctioned posts. There are as many as 8 districts (Bhojpur, Lakhisarai, Patna, Sheohar, Munger, Nalanda, Jehanabad and Sheikhpura), in each of which a government doctor has to serve more than 5 lakh people. As regards regular nurses, there were 3612 sanctioned posts, but the number of working nurses was lower at 1979, indicating a vacancy ratio of 45 percent. Similarly, in case of contractual nurses, against the sanctioned strength of 1719, only 412 were working, implying a high vacancy ratio of 76 percent. In contrast to the situation of doctors and nurses, the strength of health personnel is much higher for ANMs and ASHAs. In 2016-17, the strength of regular ANM was 12,326, against the sanctioned posts of 20,809, indicating a vacancy ratio of 41 percent. Similarly, the strength of ANMs on contractual posts is 6867, against 12,587 sanctioned posts, indicating a vacancy ratio of 45 percent. In case of ASHA workers, it is found that there are in all 86 thousand of them working in the entire state, against a sanctioned strength of 94 thousand, implying a vacancy ratio of only 9 percent. When one compares the districtwise positions, the variation is found to be moderate for ANM and ASHA workers, but in terms of doctors and nurses, there is substantial inter-district variation.

**Table 10.7 : Number of Health Personnel**

Name of the Post	Regular				Contractual			
	Sanctioned Posts	Working			Sanctioned Posts	Working		
		2014-15	2015-16	2016-17		2014-15	2015-16	2016-17
Doctors	6261	2255	2052	3154	2314	1580	1488	852
Grade A Nurse	3612	356	1706	1979	1719	1621	412	412
ANM	20809	8999	8895	12326	12587	9933	9670	6867
ASHA	—	—	—	—	93687	85045	85502	85708

Note : For 2016-17, the figures refer to September, 2016

Source : State Health Society, GOB

### Institutional Delivery

Institutionalised delivery is an effective way to combat maternal morbidity and mortality. The institutional deliveries in Bihar have increased rapidly in the recent years (Table 10.8). The number of institutional deliveries grew at an annual rate of 3.4 percent, even though there was a moderate drop in the number of institutional deliveries from 16.47 lakh in 2013-14 to 15.34 lakh in 2015-16. It is obvious that the significant decrease in Infant Mortality Rate (IMR) in Bihar in recent years is an outcome of the wider practice of institutional delivery.

The Janani Suraksha Yojana (JSY) was launched in 2005 as a key component of National Rural Health Mission (NRHM), now known as National Health Mission. It is being implemented in all states, with special focus on low performing states like Bihar. JSY aims to reduce maternal and infant mortality by promoting institutional delivery. The scheme focuses on poor pregnant woman in those states that have low institutional delivery rates —Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Assam, Rajasthan, Odisha, and Jammu and Kashmir. The scheme also provides performance based incentives to ASHAs for promoting institutional delivery among pregnant women. For this scheme, ASHAs are required to identify pregnant women, facilitate at least four antenatal check-ups for them, and motivate them to opt for institutional delivery. They are also required to visit the mother and newborn for a postnatal check-up within seven days of delivery and counsel them on early breastfeeding. In rural areas of low performing states, an incentive amount of Rs. 1400 to mothers and Rs. 600 to ASHAs are given under the scheme. Similarly, in urban areas of the low performing states, an amount of Rs. 1000 to mothers and Rs. 400 is given to Anganwadi Workers (AWW). Now, there is also a facility of Direct Benefit Transfer (DBT) under this scheme. Under this initiative, pregnant women, eligible for JSY, are entitled to get their benefit amount directly into their bank accounts. In Table A 10.6 (Appendix), the information is presented for the number of institutional deliveries under JSY in different districts of Bihar for the years 2012-13 to 2016-17 (up to September 2016). In 2015-16, three best performing districts are Samastipur (88 thousand), Purnea (71 thousand) and West Champaran (67 thousand). On the contrary, three worst performing districts are Arwal (9 thousand), Sheohar (9 thousand) and Sheikhpura (13 thousand).

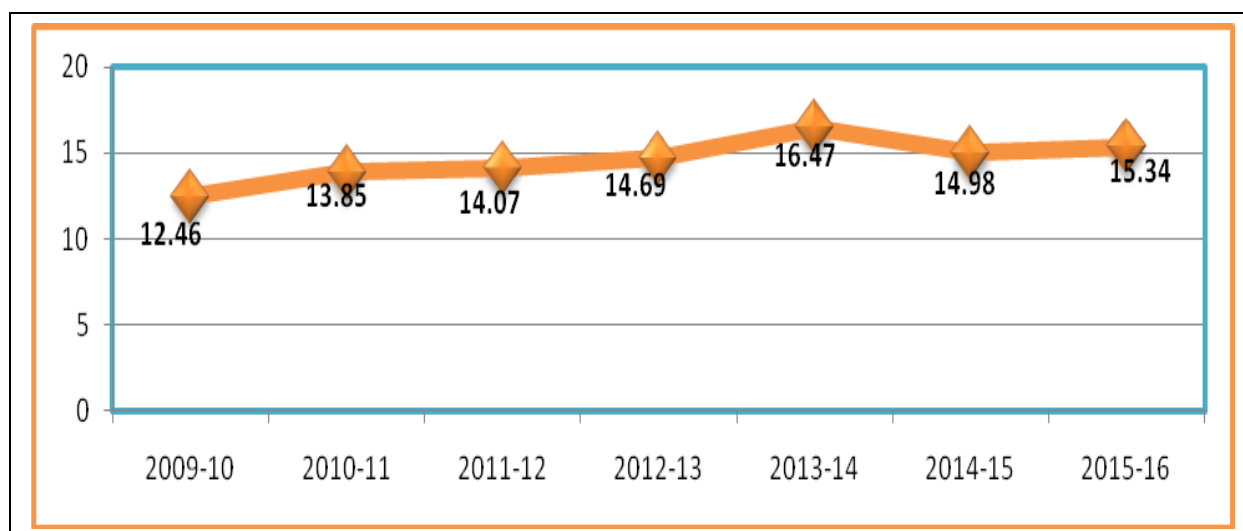
**Table 10.8 : Number of Institutional Delivery under JSY**

Institutional Delivery (lakh)	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
	12.46	13.85	14.07	14.69	16.47	14.98	15.34	3.4

Source : State Health Society, GOB



**Chart 10.2 : Number of Institutional Delivery (In lakh)**



### Immunisation

The immunization programme in India is one of the largest in the world in terms of quantities of vaccines used, numbers of beneficiaries, number of immunization sessions organized, and the geographical area covered. The immunization programme aims to reduce mortality and morbidity due to Vaccine Preventable Diseases (VPDs). Under the immunization programme, vaccines are used to protect children and pregnant mothers against nine diseases. They are — tuberculosis, diphtheria, pertussis, polio, measles, tetanus, hepatitis, haemophilus influenzae type B and Japanese Encephalitis.

Bihar has also made significant progress towards universal immunisation in the recent years. According to Table 10.9, there has been an increase of 29 percentage points in immunisation rate between NFHS-3 and NFHS-4. It is noteworthy that this increase is the highest in Bihar among the 12 states included in the table. The table refers to five components of immunisation — TT (Anti-tetanus), BCG, OPV, DPT, PENTA and measles. Looking at the most recent figures (2016-17), one observes that Bihar has achieved 96 percent immunization for measles. For pentavalent vaccine which provides protection against five life threatening diseases (haemophilus influenza type B, whooping cough, tetanus, hepatitis B and diphtheria), the achievement percentage is more than 80 percent. Hopefully, the state would achieve complete immunisation for other components in near future. In 2015, Bihar was declared to be ‘Maternal and Neonatal Tetanus Eliminated State’.

**Table 10.9 : Percentage of Fully Immunized Children (age 12-23 months)**

State	Percentage children aged 12-23 months fully immunized (BCG, Measles and 3 doses each of polio and DPT)		Percentage Point Increase	Rank by percentage increase
	NFHS-3 (2005-06)	NFHS-4 (2015-16)		
Andhra Pradesh	46.0	65.3	19.3	3
<b>Bihar</b>	<b>32.8</b>	<b>61.7</b>	<b>28.9</b>	<b>1</b>
Goa	78.6	88.4	9.8	8
Haryana	65.3	62.2	-3.1	11
Karnataka	55.0	62.6	7.6	7
Madhya Pradesh	40.3	53.8	13.5	4
Meghalaya	32.9	61.5	28.6	2
Sikkim	69.6	83.0	13.4	6
Tamil Nadu	80.9	69.7	-11.2	12
Tripura	49.7	54.5	4.8	9
Uttarakhand	60.0	57.7	-2.3	10
West Bengal	64.3	84.4	20.1	5

Note : Figures for remaining states are yet to be released by NFHS  
Source : National Family Health Survey

**Table 10.10 : Antigen-wise Immunisation Coverage**

Antigen name	2014-15		2015-16		2016-17 (Upto September, 2016)	
	Target ('000)	Achievement ('000)	Target ('000)	Achievement ('000)	Target ('000) for 6 months	Achievement ('000)
TT 2 + Booster (PW)	3106	4306(138.6)	3184	2407 (75.6)	1566	1309 (83.6)
BCG	2926	2658 (90.8)	3000	2712 (90.4)	1479	1271 (86.0)
OPV 0	2926	1801 (61.6)	3000	1836 (61.2)	1479	857 (58.0)
OPV 1	2926	2483 (84.9)	3000	2640 (88.0)	1479	1193 (80.7)
OPV 2	2926	2461 (84.1)	3000	2584 (86.2)	1479	1233 (83.4)
OPV 3	2926	2400 (82.0)	3000	2515 (83.9)	1479	1299 (87.9)
DPT 1	2926	2684 (91.7)	3000	14 (0.5)	1479	1 (0.1)
DPT 2	2926	2659 (90.9)	3000	90 (3.0)	1479	1 (0.1)
DPT 3	2926	2580 (88.2)	3000	253 (8.4)	1479	27 (1.9)
PENTA-1	0	0 (0.0)	3000	2637 (87.9)	1479	1204 (81.4)
PENTA-2	0	0 (0.0)	3000	2534 (84.5)	1479	1251 (84.6)
PENTA-3	0	0 (0.0)	3000	2328 (77.6)	1479	1321 (89.3)
Measles	2926	2330 (79.6)	3000	2548 (85.0)	1479	1413 (95.6)

Note : 1. DPT has been replaced by Pentavalent in 2015-16  
2. Figures in bracket indicate Achievement in Percentage  
Source : State Health Society, GOB

### Prevalence of Main Diseases

For proper healthcare, it is necessary to identify the main diseases and arrange for their prevention or cure. In this background, Table 10.11 presents the data on the prevalence of various diseases in Bihar during the last three years. It is noticed from the table that, in 2015-16, the number of cases was the highest in respect of Acute Respiratory Illness (13.5 lakh), followed by Fever of Unknown Origin (10.3 lakh). Other important diseases as per their prevalence in 2015-16 are — Acute Diarrhoea (5.1 lakh), Dysentery (2.8 lakh) and Enteric Fever (2.6 lakh). The districtwise details of the prevalence of various diseases in the state in 2016-17 (up to September, 2016) are given in Table A 10.7 (Appendix). To improve the healthcare services in Bihar, the state government has undertaken the following new initiative :

- Under Chief Minister Kala-azar Relief Fund, a financial assistance of Rs. 6600 is given to each patient for medical treatment. In 2015-16, there is 29 percent reduction in Kala-azar which is due to introduction of advanced medicine like Ambisome and continuous spray of Synthetic Pyrethroid.
- Under National De-worming Programme, a total of 346 lakh children of age-group 1-19 years were treated with Albendazole tablets.
- Under National Urban Health Mission, 73 Urban PHCs were made operational in which approximately 2 lakh patients have already been treated.
- A Memorandum of Cooperation was signed between Bill and Melinda Gates Foundation and the state government to provide support for 5 years (2017-2021) for improvement of services in sectors of Health, Nutrition, Sanitation, ICDS, Agriculture and Rural Development.
- Taprovardhan Prakritik Chikitsa Kendra, Bhagalpur will be developed as an Advanced Naturopathy Centre in order to promote naturopathy system of medicine in the state.
- Under Awasar Badhe, Aage Padhe, a component of Saat Nischay of the state government, General Nursing and Midwifery (GNM) institutes will be established in 23 identified districts of Bihar in the coming five years.
- Under Public-Private-Partnership with Global Health Private Limited (Medanta, Gurgaon) 'Jayprabha Medanta Super Speciality Hospital' is being established in the campus of Jayprabha Hospital, Patna.

**Table 10.11 : Prevalence of Main Diseases in Bihar**

(No. of patients in lakh)

Diseases	2013-14	2014-15	2015-16
Acute Diarrhoea	6.87 (11.7)	6.87 (13.1)	5.1 (13.0)
Bacillary Dysentery	4.00 (6.8)	3.64 (6.9)	2.8 (7.2)
Viral Hepatitis	0.14 (0.2)	0.26 (0.5)	0.3 (0.7)
Enteric Fever	3.11 (5.3)	3.07 (5.9)	2.6 (6.7)
Malaria	0.33 (0.6)	0.29 (0.6)	0.3 (0.8)
Fever of Unknown Origin	16.43 (28.0)	13.18 (25.2)	10.3 (26.6)
Acute Respiratory Illnesses	21.52 (36.6)	17.30 (33.0)	13.5 (34.7)
Pneumonia	0.73 (1.2)	0.49 (0.9)	0.4 (1.1)
Dog Bite	4.15 (7.1)	6.27 (12.0)	2.7 (7.0)
Any other State Specific disease	0.42 (0.7)	0.29 (0.6)	0.3 (0.8)
Unusual Syndromes not captured above	1.03 (1.8)	0.71 (1.4)	0.6 (1.5)
<b>Total</b>	<b>58.74 (100.0)</b>	<b>52.37 (100.0)</b>	<b>38.8 (100.0)</b>

Source : State Health Society, GOB

### Integrated Child Development Scheme (ICDS)

Integrated Child Development Services (ICDS) was launched in 3 blocks of Bihar on October 2, 1975, in response to the challenge of meeting the holistic needs of the early child care and expectant mothers. The children in the age group 0-6 years account for 18.3 percent of state's total population which is around 19.1 million (2011 census). The ICDS is a centrally sponsored scheme, which provides a package of six services — (i) supplementary nutrition (ii) immunization, (iii) health check-up, (iv) referral services, (v) pre-school non-formal education for children between the ages of 3-6 years and (vi) nutrition and health education. The target group of ICDS, comprising children, expectant mothers and nursing mothers is reached through Child Development Project Officer (CDPO), Lady Supervisor (LS), Anganwadi Worker (AWW) and Anganwadi Helper (AWH). The scheme greatly contributes to attain the goal of universal primary education and targeted nutritional standard for the children.

Presently, 544 ICDS projects are operational in Bihar, covering all development blocks in 38 districts. A total of 91.6 thousand Anganwadi Centres (AWC) are functioning under those 544 projects. Table 10.12 presents the staffing position for ICDS in Bihar. The figures indicate that the vacancy ratios in 2015-16 are — CDPO (15.8 percent), Lady Supervisors (24.0 percent), Anganwadi Workers (6.3 percent) and Anganwadi Helpers (7.1 percent). If one compares the vacancy ratios over the years, it is observed that while the staff strength has improved for

Anganwadi workers and Anganwadi Helpers, the situation has deteriorated for CDPOs and Lady Supervisors.

**Table 10.12 : Staffing Position in ICDS**

Year	Posts	CDPO	Lady Supervisor	Anganwadi Worker	Anganwadi Helper
No. of Sanctioned Posts		544	3288	91677	86337
2012-13	Working	507	2916	75183	67753
	Percentage of Vacant Post	6.8	11.3	18.0	21.4
2013-14	Working	504	2859	82177	78076
	Percentage of Vacant Post	7.4	13.0	10.4	9.5
2014-15	Working	458	2499	85936	80176
	Percentage of Vacant Post	15.8	24.0	6.3	7.0
2015-16	Working	458	2499	85944	80178
	Percentage of Vacant Post	15.8	24.0	6.3	7.1

Source : Directorate of ICDS, GOB

The budget provisions for ICDS has steadily increased from Rs. 1255.9 crore in 2011-12 to Rs. 1409.7 crore in 2015-16, implying an annual growth rate of 7.3 percent (Table 10.13). As regards the funds actually released by the central government, it has generally been lower than the budgeted sum. In 2015-16, the fund released by the central government is 75.3 percent of the budgetary amount; it was much lower at 51.3 percent a year before. The fund utilisation has been generally high, in some years exceeding 100 percent.

**Table 10.13 : Resource Utilisation in ICDS**

Year	Budget for ICDS Bihar (Rs crore)	Funds Released by GOI (Rs crore)	Expenditure (Rs crore)	Fund Released as Percentage of Budget	Expenditure as Percentage of Fund Released
2011-12	1255.9	767.4	945.1	61.1	123.2
2012-13	1393.3	1094.0	1086.1	78.5	99.3
2013-14	1714.3	1147.4	1234.5	66.9	107.6
2014-15	2238.3	1147.4	1234.9	51.3	107.6
2015-16	1409.7	1062.2	983.4	75.3	92.6
CAGR (2011-12 to 2015-16)	7.3	7.2	2.1		

Source : Directorate of ICDS, GOB

### Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) (SABLA)

In Bihar, adolescent girls (11-18 years) constitute nearly 16.7 percent (83.0 lakh) of the total female population (2011 census). To meet the requirements of the adolescent girls, Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) was launched in November, 2010 as a comprehensive intervention for them, with a special focus on out-of-school girls. The scheme, also known as SABLA scheme, aims at empowering adolescent girls by improving their nutritional and health status, apart from upgradation of home skills, life skills and vocational skills. The girls are equipped with information on health and family welfare, hygiene and existing public services. The scheme is being implemented using the platform of ICDS and AWCs are the agents for the delivery of services. However, wherever the infrastructure and other facilities under AWCs are inadequate, alternative arrangements are made in schools or panchayat community buildings. The SABLA scheme is a Centrally Sponsored Scheme and it was launched initially on International Women's Day in 2011. The coverage of the pilot programme was in 200 districts in the country, of which 12 are in Bihar — Patna, Buxar, Gaya, Aurangabad, Sitamarhi, West Champaran, Vaishali, Saharsa, Kishanganj, Banka, Katihar and Munger.

Under this scheme, supplementary nutrition (600 kcal) and 18-20 gms. of protein and micronutrients are provided every day, either as hot cooked meal or as take home rations in the AWCs. The expenditure on the nutritional component of SABLA is shared by the central and state government in the ratio of 60:40. This service is available to out-of-school adolescent girls in 11-14 years and all adolescent girls between 14-18 years for 300 days in a year. In addition, out-of-school adolescent girls are being provided other services, which include life skills education. The scheme also emphasizes convergence of services under various programmes for health, education, youth affairs and sports, and Panchayati Raj Institutions (PRI) to achieve the programme objectives.

In 2015-16, target beneficiaries for SABLA Supplementary Nutrition Programme (SNP) were 18.20 lakh adolescent girls and, for skill development, it was 1.43 lakh adolescent girls. The central government has released Rs. 875.28 lakh for SABLA scheme, whereas the state has provisioned Rs. 2470.00 lakh in 2015-16 for the same.

### Indira Gandhi Matritva Sahyog Yojana (IGMSY)

According to NFHS-4, maternal undernutrition and anaemia are major challenges in Bihar, with nearly one-third (30.4 percent) of the women having low body mass index (BMI) and more than half (60.3 percent) are anaemic. In view of this, the Ministry of Women and Child Development (MWCD) of the central government has formulated a new scheme for pregnant and lactating mothers, called Indira Gandhi Matritva Sahyog Yojana (IGMSY). IGMSY was launched in October 2010 on a pilot basis with 100 percent centrally assisted funds. Currently, the scheme is functional in two districts of Bihar — Saharsa and Vaishali. Under this scheme, the beneficiaries are paid Rs. 6000 in two installments through bank accounts or post office accounts. The first

installment is given in third trimester, i.e., seven to nine months of pregnancy and the second installment is given in six months after delivery on fulfilling specific conditions. This cash incentive is provided directly to the mothers who are 19 years and above for the first two live births, subject to fulfilling some conditions. In 2015-16, the funding pattern has been revised and now the sharing pattern between central and state government is in the ratio of 60:40. The central government has released Rs. 2431.40 lakh in 2015-16, whereas the state has made provision of Rs. 1893.94 lakh for the scheme.

## **10.2 Drinking Water Supply and Sanitation**

One of the major causes of poor health conditions in Bihar is the absence of basic amenities like safe drinking water and sanitation. As per census 2011, only 4.4 per cent of households in the state have access to tap water connection, of which only 3.1 percent households use tap water from treated sources. As high as 89.6 percent households of the state depend on hand pump/tube well/bore well for drinking water. Regarding sanitation coverage, 76.9 percent of the state's households do not have a latrine within their own premises, as per 2011 census. In urban areas, this figure is 31.1 percent, and in rural areas it is 82.4 percent. Consequently, 75.8 percent of the total households defecate in the open; the proportion are 81.4 percent in rural areas and 28.9 percent in urban areas.

In order to meet universal sanitation coverage, the Prime Minister has launched the Swachh Bharat Mission on October 2, 2014, with two Sub-Missions — Swachh Bharat Mission (Gramin) and the Swachh Bharat Mission (Urban). This Mission aims to achieve Swachh Bharat by 2019, as a fitting tribute to the 150th Birth Anniversary of Mahatma Gandhi. In rural areas, it aims to improve the general quality of life by promoting cleanliness, hygiene and eliminating open defecation. It also encourages cost effective and appropriate technologies for ecologically safe and sustainable sanitation. Swachh Bharat Mission (Rural) endeavours to develop community managed sanitation systems for overall cleanliness in the rural areas. Similarly, Swachh Bharat Mission (Urban) intends to eliminate open defecation, eradicate manual scavenging and develop modern and scientific municipal solid waste management system.

In order to provide clean drinking water to every citizen of Bihar, without any discrimination, Har Ghar Nal Ka Jal (every household should have running tap water) and Sauchalaya Nirman Ghar Ka Sammaan (construction of toilets makes decent house) are the two vows taken by the state government, under its Saat Nischay. To fulfill the first aim, the state government has launched four schemes, of which three are meant for rural areas and the fourth for the urban area. Similarly, two schemes have been started for sanitation programme — Lohia Swachh Bihar Abhiyan for rural areas and Sauchalaya Nirman (Urban) Yojana for urban areas.

The central government has introduced National Rural Drinking Water Supply Programme (NRDWP), in order to address water supply and sanitation problems in rural areas. The progress

of NRDWP is presented in Table 10.14. In 2015-16, as many as 26.7 thousand handpumps have been installed under this programme. The goal of NRDWP is to ensure that, by 2022, every rural household in the country has access to at least 70 litres of water per capita per day (lpcd), within their household premises or at a distance of less than 50 meters. In 2015-16, there were 4.26 lakh additions in the construction of individual household latrines. The lower figures for construction of sanitary complexes denote that the target has almost been achieved by the concerned department. The district-wise coverage of habitations for water supply and sanitation through the scheme is presented in Table A 10.8 and A 10.9 (Appendix).

**Table 10.14 : Achievement under Water Supply and Sanitation**

(Figures in Number)

Year	Handpumps Installed	Slipped back Habitations/ Water quality problems covered	Individual Household Latrine (IHHL) constructed			Construction of Sanitary Complex
			APL	BPL	Total	
2010-11	58597	13922	173219	557312	730531	66
2011-12	28286	11243	193875	646052	839927	132
2012-13	31926	10960	236021	560678	796699	214
2013-14	34289	12787	63190	98456	161646	36
2014-15	24287	12236	47056	118401	165457	20
2015-16	26691	7189	145766	280365	426131	10

Source : Public Health Engineering Department, GOB

The fund utilisation under NRDWP, during the period 2011-12 to 2015-16, is shown in Table 10.15. The utilisation of fund has increased steadily from 82.6 percent in 2011-12 to 90.9 percent in 2015-16. This significant increase in fund utilisation has definite impact on physical achievement. This trend should be sustained in the coming years to ensure the coverage of hygienic sanitation facility throughout the state.

**Table 10.15 : Financial Progress under NRDWP**

(Rs. crore)

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Outlay	440.80	351.02	353.80	426.35	296.14
Expenditure	364.22	283.50	299.02	375.38	269.19
Percentage of Utilisation	82.6	80.8	84.5	88.0	90.9

Source : Public Health Engineering Department, GOB



The details of financial and physical progress for water supply and sanitation schemes under state plan are presented in Tables 10.16 and 10.17. The annual growth rate in expenditure in the past five years (29.3 percent) was higher than the rate of growth in outlay (25.7 percent). Although the financial progress has been satisfactory, unfortunately, the physical progress has not matched the financial progress in terms of either rural pipe water supply scheme or establishment of new hand pumps. In 2015-16, the achievement was 21.4 percent for rural piped water supply scheme, and 38.7 percent for installation of new hand pumps. However, the achievement rate of covering uncovered habitations is notably higher in 2015-16 (96 percent), compared to 2011-12 (71 percent).

**Table 10.16 : Financial Progress in State Plan Schemes for Water Supply and Sanitation**

(Rs. crore)

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Outlay	259.49	554.1	745.59	793.68	679.75
Expenditure	224.71	302.54	645.94	604.91	574.17
Outlay as Percent of Expenditure	86.6	54.6	86.6	76.2	84.5

Source : Public Health Engineering Department, GOB

**Table 10.17 : Physical Achievements in State Plan Schemes for Water Supply and Sanitation**

Years/Schemes		Rural Piped Water Supply Scheme	Installation of New instead of Old Hand Pumps	Uncovered Tolas (Habitations)
2011-12	Target	23	6880	15810
	Achievement	12 (52.2)	3330 (48.4)	11243 (71.1)
2012-13	Target	22	50492	15015
	Achievement	8 (36.4)	12114 (24.0)	10960 (73.0)
2013-14	Target	14	94526	13832
	Achievement	3 (21.4)	44066 (46.6)	12787 (92.4)
2014-15	Target	12	105688	13000
	Achievement	2 (16.7)	43783 (41.4)	12236 (94.1)
2015-16	Target	14	127449	7493
	Achievement	3 (21.4)	49331 (38.7)	7189 (95.9)

Note : Numbers in parentheses indicate achievement percentage.

Source : Public Health Engineering Department, GOB

Some of the important interventions of the state government for providing safe drinking water and improving sanitation in Bihar are the following:

- A scheme called Lohiya Swachhha Bihar Mission was launched in March, 2016
- Under Swachh Bharat Mission (Gramin), 4.47 lakh toilets were constructed till May, 2016 and 60 Gram Panchayat were declared Open Defecation Free (ODF) .
- Under Mukhyamantri Chapakal Yojana, 32.47 thousand new handpumps were installed between December 2015 to September 2016 on the recommendation of Honourable MLAs and MLCs.
- Bihar Gram Swachhha Peyjal Nishchay Abhiyan was implemented to ensure community participation for providing safe drinking water in areas affected by fluoride, arsenic and iron.
- An amount of Rs. 543.61 crore was sanctioned as state share for full coverage of 15 thousand wards of 845 Gram Panchayats for a tap connection to each house, under Mukhyamantri Gramin Peyjal Nishchaya Yojana, in the non-quality affected areas.

### **10.3 Education, Art, Culture and Youth**

Development is a comprehensive economic, social, cultural and political process aiming to improve the well-being of populations. One element that serves as a driver of such development is education. Indeed, quality education is one of the basic human rights. But unfortunately, Bihar has been one of the disadvantaged states in education in the post-independence era. In recent times, however, the state has improved significantly in the education sector. This section presents the status of education in Bihar, in terms of literacy rate, enrolment ratio, dropout rate, number of schools and teachers, expenditure on education, Mid-day Meal Scheme, Sarva Siksha Abhiyan and a few other related activities.

#### Literacy Rate

The literacy rate in Bihar remains one of the lowest in the country, but the state has made remarkable progress in this field in the last decade. The literacy rate in Bihar increased from 47.0 percent in 2001 to 61.8 percent in 2011, implying an increase of 14.8 percentage point during the decade (Table 10.18). This decadal increase is not only the highest among all the decades since 1961, it is also the highest among all the states in India for the decade 2001-2011. It might be noted here that, for the country as a whole, the literacy rate in 2011 was 72.9 percent, compared to 64.8 percent in 2001, implying an increase 8.1 percentage point. Apart from recording the highest increase in literacy rates, Bihar has been able to considerably reduce the gender difference in its literacy rates. In 2001, the male and female literacy rates in Bihar were 60.3 percent and 33.6 percent respectively, implying a difference of 26.7 percentage point. In 2011,

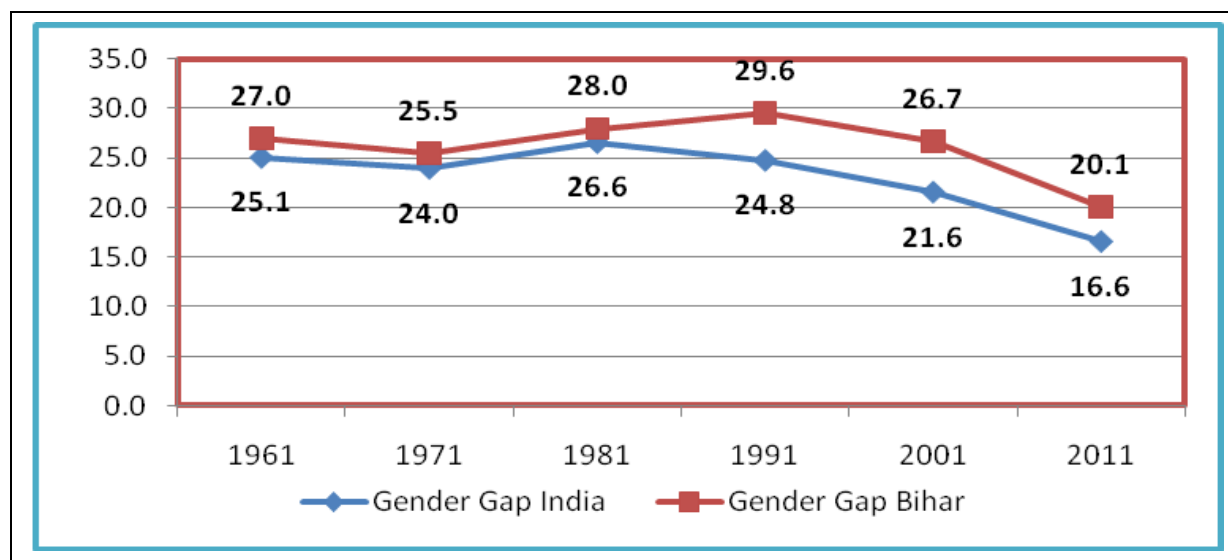
the genderwise literacy rates were 71.2 percent (male) and 51.5 percent (female), implying a reduced gender difference of 20.1 percentage point. This was possible because the decadal growth in female literacy rate in Bihar was as high as 17.9 percent, compared to 10.9 percent for the males. This appreciable performance of Bihar in promoting literacy can be ascribed to two factors. First, due to awareness of social justice, the demand for education is now very high among all sections of the society and the second, state government has considerably enhanced its expenditure on education.

**Table 10.18 : Trend of Literacy Rates in India and Bihar**

Year	India			Bihar			Gender Gap	
	Male	Female	Total	Male	Female	Total	India	Bihar
1961	40.4	15.4	28.3	35.2	8.2	22.0	25.1	27.0
1971	46.0	22.0	34.5	35.8	10.2	23.2	24.0	25.5
1981	56.4	29.8	43.6	43.8	15.8	32.3	26.6	28.0
1991	64.1	39.3	52.2	52.5	22.9	37.5	24.8	29.6
2001	75.3	53.7	64.8	60.3	33.6	47.0	21.6	26.7
2011	80.9	64.6	72.9	71.2	51.5	61.8	16.6	20.1

Source : Census of India

**Chart 10.3 : Gender Gap of Literacy Rates in India and Bihar**



### Elementary Education

The educational progress of the state is dependent on parallel developments in its elementary, secondary and higher education sectors. At the operational level, elementary education is generally divided into two parts — five years of primary education (grades 1-5), followed by

three years of upper primary education (grades 6-8). For a socially disadvantaged state like Bihar, it is the elementary education sector that commands the highest importance, since it is this sector which feeds students for the secondary sector which, in turn, feeds students for the higher education sector. The progress in elementary education sector also means that the process is an inclusive one, since it is more relevant for a large number of students who are first generation learners coming from deprived sections of the society. The enrolment ratio and dropout rate are the two vital indices of the status of elementary education. Both these indicators are mostly influenced by the availability of educational facilities like schools, teachers, etc. This is particularly true for a state like Bihar where most of the households depend on public schools.

### Enrolment Ratio

The total enrolment at elementary level has been steadily increasing over the five years at an annual rate of 3.9 percent (Table 10.19). The data in the table shows total enrolment at Primary and Upper Primary Levels in Bihar, during 2010-11 to 2014-15. The annual growth rate in primary enrolment was 1.9 percent during this period. The total enrolment in primary level was 161.35 lakhs in 2014-15, increasing from 149.34 lakhs in 2010-11. At the upper primary level also, the enrolment has risen during the last five years. The total enrolment at this level in 2014-15 was 67.91 lakhs, indicating an annual growth rate of 9.6 percent. As a whole, the total enrolment, taking primary and upper primary together, rose to 229.26 lakhs in 2014-15 from 198.14 lakhs in 2010-11, implying an annual growth rate of 3.9 percent. The enrolment for SC and ST students during this period has grown at an even higher rate of 5.2 percent and 16.6 percent respectively. Such higher growth rate for enrolment of SC and ST students indicates reduction in social disparity in education.

The decline in gender gap over this period is another positive indicator of educational development in the state. The growth rate of enrolment of girls was 5.3 percent during 2010-11 to 2014-15, compared to 2.7 percent for the boys. The total enrolment of boys (118.5 lakhs) at the elementary level was only slightly higher than that of the girls (110.8 lakhs) in 2014-15. This pattern of higher growth rate of enrolment for girls, and a marginally lower share of girls in total number of students, is also observed for both primary and upper primary schools. The same pattern is observed for SC and ST students. Taking primary and upper primary together, boys accounted for 54.2 percent of the total enrolment in 2010-11; but this share was 51.7 percent in 2014-15.

The district-wise total enrolment is given in the Appendix Table A 10.10 (All students), A 10.11 (SC) and A 10.12 (ST). There exists wide variation in enrolment among the districts at both primary and upper primary level in 2014-15. East Champaran (16.28 lakh) has registered the highest enrolment at both the levels, followed by Muzaffarpur (14.10 lakh) and Patna

(10.34 lakh) in 2014-15. On the other hand, Sheohar (1.18 lakh) and Sheikhpura (1.36 lakh) have registered the lowest enrolment in primary and upper primary in 2014-15. Regarding SC students, the best performing district at both the levels was Gaya (3.01 lakh) and the worst performing district was Sheikhpura (0.22 lakh). For ST students, the best performing district in 2014-15 was Katihar (0.68 lakh).

**Table 10.19 : Total Enrolment in Primary and Upper Primary Levels**

(Nos. in lakh)

Level/Type of Students		2010-11	2011-12	2012-13	2013-14	2014-15	CAGR
Primary							
Boys	Combined	80.76	82.29	79.74	83.34	83.72	0.9
	SC	15.23	16.1	14.5	15.81	15.58	0.3
	ST	1.07	1.34	1.59	1.64	1.7	11.9
Girls	Combined	68.57	74.21	74.77	77.86	77.63	3.0
	SC	12.17	13.29	13.21	14.47	14.39	4.3
	ST	0.73	1.14	1.33	1.36	1.4	15.9
All	Combined	149.34	156.5	154.51	161.2	161.35	1.9
	SC	27.4	29.39	27.71	30.29	29.97	2.1
	ST	1.81	2.48	2.92	3.01	3.11	13.6
Upper Primary							
Boys	Combined	26.65	27.04	31.34	33.66	34.77	7.8
	SC	3.82	4.26	4.81	5.59	6.12	12.9
	ST	0.25	0.36	0.55	0.58	0.61	25.4
Girls	Combined	22.14	23.51	29.02	31.75	33.14	11.7
	SC	2.78	3.37	4.23	5.11	5.47	19.4
	ST	0.18	0.3	0.46	0.48	0.53	30.1
All	Combined	48.8	50.55	60.36	65.41	67.91	9.6
	SC	6.61	7.63	9.04	10.71	11.59	15.7
	ST	0.44	0.66	1.01	1.07	1.15	27.2
Total							
Boys	Combined	107.41	109.33	111.08	117	118.49	2.7
	SC	19.05	20.36	19.31	21.4	21.7	3.2
	ST	1.32	1.7	2.14	2.22	2.31	14.9
Girls	Combined	90.71	97.92	103.79	109.61	110.77	5.3
	SC	14.95	16.66	17.44	19.58	19.86	7.6
	ST	0.91	1.44	1.79	1.84	1.93	19.1
All	Combined	198.14	207.25	214.87	226.62	229.26	3.9
	SC	34.01	37.02	36.75	41.01	41.56	5.2
	ST	2.25	3.14	3.93	4.08	4.26	16.6

Source: Department of Education, GOB

### Dropout Rate

A high enrolment rate for students does not carry much significance, if the dropout rates are also high. The dropout rate represents the percentage of students who drop out from a given grade in a given school year. The phenomenon of substantial dropout before completing the desired education level is a problem in Bihar. All the factors behind such dropout may be broadly distributed under three categories — economic factors, social and cultural factors, and school environment and infrastructure. In case of Bihar, all these factors are operational in varying degrees.

**Table 10.20 : Dropout Rates at Primary, Upper Primary, Secondary and Higher Secondary Levels**

Year		2010-11	2011-12	2012-13	2013-14	2014-15
Primary	Girls	35.3	30.7	26.3	23.6	24.0
	Boys	42.1	38.0	36.0	33.6	29.2
	Combined	39.3	34.8	31.7	29.1	26.8
Upper Primary	Girls	51.3	51.1	38.7	34.7	38.9
	Boys	57.9	58.6	52.4	52.4	49.9
	Combined	55.1	55.5	46.7	46.5	45.1
Secondary	Girls	58.9	62.7	59.5	57.6	53.9
	Boys	64.4	66.9	65.2	64.7	61.2
	Combined	62.2	65.2	62.8	61.8	58.2
Higher Secondary	Girls	69.4	64.7	NA	NA	NA
	Boys	72.9	68.4	NA	NA	NA
	Combined	71.6	67.0	NA	NA	NA

Source : Department of Education, GOB

The data on the dropout rates in Bihar from 2010-11 to 2014-15 for primary, upper primary, secondary and higher secondary stages of education is presented in Table 10.20. For the primary stage, the dropout rate was as 39.3 percent in 2010-11, but it has reduced to 26.8 percent in 2014-15, implying a decrease of 12.4 percentage points. Similarly, in Upper Primary, a decrease of 10.1 percentage points, from 2010-11 (55.1 percent) to 2014-15 (45.1 percent), is also observed. Such rapid decline in the dropout rates indicates the achievement of Sarva Siksha Abhiyan, the implementation of which has been discussed later in this chapter. The dropout rates at secondary and higher secondary levels are much higher than that at the elementary level. Such dropout rate was 58.2 percent in 2014-15 at secondary level, implying a decrease of 4.0 percentage point from 62.2 percent in 2010-11. It is a matter of concern that, after even after 70 years of independence, only 42 percent of students, who are enrolled in standard I, are able to complete their secondary education. The proportion of students completing the higher secondary education is even lower.

As regards gender differences, it is appreciable that, at all the levels of education (elementary, secondary and higher secondary), the dropout rates of girl students are lower than that for the boys. The state has progressed much towards the goals of elementary education and should now try to promote universalisation of secondary education, as this will generate human capital to accelerate economic growth and social development in the state.

In order to uplift the disadvantaged sections of the society, specially those belonging to the SC and ST category, constant monitoring is required to enhance enrolment, retention and attendance of students, belonging to those groups. Table 10.21 presents the dropout rate of SC and ST students at the primary, upper primary and secondary levels during 2010-11 to 2014-15 in Bihar. The figures in the table clearly indicates that the SC and ST dropout rates have also decreased progressively during this period. The dropout rate of SC girls has been lower than that of SC boys throughout the period, at both primary and upper primary stages. It is noteworthy that the dropout rate for SC girls in primary level decreased by 10.4 percentage points during the period 2010-11 to 2014-15. Similarly, during the period, in upper primary and secondary levels, the dropout rate for SC girls has decreased by 24.1 and 15.3 percentage points respectively. For ST students again, one observes a steady decline in dropout rates during this period for both boys and girls. This trend of steady decline in dropout rates for all students including those belonging to SC or ST categories is an important achievement of the educational sector in Bihar.

**Table 10.21 : Dropout Rates (SC & ST) at Primary, Upper Primary and Secondary Levels**

Year	Primary			Upper Primary			Secondary		
	Girls	Boys	Combined	Girls	Boys	Combined	Girls	Boys	Combined
	Scheduled Caste								
2010-11	35.9	40.9	38.8	63.8	68.2	66.5	76.8	78.0	77.6
2011-12	30.6	36.7	34.1	60.5	67.2	64.6	72.7	75.9	74.7
2012-13	24.3	36.3	31.2	49.0	61.4	56.5	65.1	70.6	68.4
2013-14	13.3	30.4	23.2	40.5	54.7	48.9	64.3	69.8	67.7
2014-15	25.5	32.9	29.6	39.7	47.1	44.0	61.5	67.8	65.3
	Scheduled Tribe								
2010-11	19.8	31.6	27.1	46.1	56.5	52.6	66.8	70.9	69.5
2011-12	NA	14.4	NA	22.7	43.5	35.7	32.6	49.3	43.5
2012-13	NA	NA	NA	NA	23.8	13.1	26.6	38.2	33.9
2013-14	NA	23.8	10.0	NA	21.7	12.7	23.5	37.6	32.3
2013-14	(-)15.1	23.8	10.0	(-)2.0	21.7	12.7	23.5	37.6	32.3
2014-15	(-)21.2	0.9	(-)8.3	3.2	27.8	18.0	31.8	45.7	40.5

Source : Department of Education, GOB

### Number of Schools and Teachers

The total number of primary and upper primary schools in Bihar in 2014-15 was 76,596. Three best performing districts in terms of number of schools are Patna (3876), Madhubani (3503) and East Champaran (3336). On the other hand, three districts with the least number of schools are Sheohar (441), Sheikhpura (532) and Arwal (576). The district-wise number of primary and upper primary schools is presented in Table A 10.13 (Appendix).

The Pupil-Teacher Ratio (PTR) denotes average number of pupils (students) per teacher in the school. To ensure quality education, the number of teachers needs to be increased with the growth in enrolment ratio. According to Manav Vikas Mission, the target for PTR for elementary education is 40:1 based on enrolment, and 30:1 based on attendance. The total number of teachers at primary and upper primary schools was 4.2 lakh in 2014-15. East Champaran (19,578), Patna (18,707) and Muzaffarpur (18,091) had the largest number of teachers in 2014-15, whereas Sheohar (2404), Sheikhpura (2651) and Arwal (3412) had the lowest number of teachers. The district-wise number of teachers at primary and upper primary schools is presented in Table A 10.14 (Appendix).

### Expenditure on Education

An adequate expenditure on education is very important for the functioning of the educational sector. In recent years, there has been a substantial increase in the expenditure in education sector. Table 10.22 shows the expenditure on education during the last five years. The annual growth rate of plan expenditure on education was as high as 35.6 percent, and the non-plan expenditure has also increased steadily at an annual growth rate of 7.2 percent during this period. As a whole, expenditure on education was more than doubled during this period with an impressive annual growth rate of 18.1 percent. This steady increase in expenditure on education reflects the constant effort of the state government for the progress of the education in the state. The expenditure on education as percentage of the total budget has increased to 17.3 percent in 2015-16, from 16.2 percent in 2011-12. The share of expenditure on education to total expenditure on social services has also increased from 51.9 percent in 2011-12 to 53.9 percent in 2015-16. Table 10.23, presents the breakdown of total expenditure on education in three components (elementary, secondary and higher) in 2013-14, 2014-15 and 2015-16. It is evident that in all the years, elementary education has accounted for the highest share of the total expenditure on education, compared to other two categories. Compared to a share of 51.9 percent for elementary education in 2013-14, it was 68.7 percent in 2015-16.



**Table 10.22 : Expenditure on Education**

Year	Expenditure on Education (Rs. crore)			Expenditure on Education as percentage of	
	Plan	Non-Plan	Total	Total Budget	Expenditure on social services
2011-12	2901.18	6836.34	9737.52	16.18	51.99
2012-13	4949.63	8439.03	13388.66	19.35	57.94
2013-14	5038.99	9907.18	14946.17	18.59	56.62
2014-15	8258.51	9574.42	17832.93	18.83	56.23
2015-16	10303.31	9082.32	19385.63	17.26	53.93
CAGR	35.6	7.2	18.1		

Source : State Government Finances, GOB

**Table 10.23 : Expenditure on Education — Elementary, Secondary and Higher Education**

Year		Expenditure/Allotment on Education (Rs. Crore)		
		Plan	Non-Plan	Total
2013-14	Elementary	3428.2 (68.0)	4335.8 (43.8)	7764 (51.9)
	Secondary	1308.84 (26.0)	1677.98 (16.9)	2986.82 (20.0)
	Higher	301.95 (6.0)	3893.4 (39.3)	4195.35 (28.1)
	Total	5038.99 (100.0)	9907.17 (100.0)	14946.16 (100)
2014-15	Elementary	6922.6 (83.8)	5217.17 (54.5)	12139.77 (68.1)
	Secondary	1184.18 (14.3)	2184.05 (22.8)	3368.23 (18.9)
	Higher	151.73 (1.8)	2173.2 (22.7)	2324.93 (13.0)
	Total	8258.51 (100.0)	9574.42 (100.0)	17832.93 (100.0)
2015-16	Elementary	8789.83 (85.3)	4536.68 (50.0)	13326.51 (68.7)
	Secondary	1441.88 (14.0)	2234.99 (24.6)	3676.87 (19.0)
	Higher	71.6 (0.7)	2310.65 (25.4)	2382.25 (12.3)
	Total	10303.31 (100.0)	9082.32 (100.0)	19385.63 (100.0)

Note : The figures in the parentheses denote percentage share to total

Source : State Government Finances, GOB

**Mid-Day Meal Scheme (MDMS)**

The MDMS is a right-based scheme which was introduced to improve elementary education through higher enrolment of the children in the age group of 6-14 years and their retention in schools. The objective of the scheme is to address two of the basic problems of the majority of the school children in the state, viz., hunger and education. The MDMS has been extended to

upper primary classes in 2007 and universalised at the elementary level in 2008. From 2015-16, the sharing pattern of MDMS is in the ratio of 60:40 for the central and state government.

**Table 10.24 : Coverage of MDMS**

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Class I-V					
Total Enrolment (in lakhs)	153.16	147.7	140.68	143.18	144.70
No. of Children Availing MDMS (per day) (in lakhs)	68.55	85.22	93.27	94.35	99.27
Coverage Percentage	44.8	57.7	66.3	65.9	68.6
Class VI-VIII					
Total Enrolment (in lakhs)	52.45	52.87	54.27	60.58	62.66
No. of Children Availing MDM (per day) (in lakhs)	20.55	30.32	36.11	36.96	40.02
Coverage Percentage	39.2	57.3	66.5	61.0	63.9

Source : MDMS, GOB

The overall situation regarding the coverage of the scheme is indicated in Table 10.24 for the period 2011-12 to 2015-16. In 2011-12, the coverage of MDMS at primary level was 44.8 percent, which increased to 68.6 percent in 2015-16. Likewise, the coverage of MDMS at upper primary level was 39.2 percent in 2011-12 and it is 63.9 percent in 2015-16. Thus, the coverage of MDMS at both the levels have increased substantially over the last five years.

The district-wise coverage of MDMS at primary and upper primary levels is presented in Table A 10.15 and A10.16, respectively (Appendix). During 2015-16, the coverage of MDMS in 19 districts was above the state average of 68.6 percent at the primary level, compared to 7 districts in the previous year. Out of these 19 districts, three best performing districts were Patna (78.8 percent), West Champaran (76.7 percent) and Sheohar (76.3 percent). At the upper primary level, there are 17 districts where the MDMS coverage was above the state average of 63.9 percent, compared to 13 districts in the preceding year. The best three districts in terms of coverage at upper primary level are — Sheohar (84.4 percent), Patna (75.2 percent) and Sitamarhi (74.1 percent). The lowest coverage is recorded in Katihar (51.3 percent) and Araria (52.8 percent). If the present trend continues, the coverage of MDMS could be universal in the coming years.

#### Sarva Shiksha Abhiyan (SSA)

The Sarva Shiksha Abhiyan (SSA) is a flagship programme of the central government to ensure the universalisation of elementary education in the country. Under the 86th amendment to the Constitution, free and compulsory education is a fundamental right for children in the 6-14 years

age group. It is jointly funded by the central and state government with a share of 60:40 respectively. To ensure education for all, SSA has fixed the following objectives: (i) capacity building of teachers; (ii) providing adequate number of teachers and bringing teacher-student ratio to the desired level; (iii) strengthening school infrastructure and (iv) ensuring community participation by forming Village Education Committee (VEC) at the Gram Sansad (Village Council) level. It also aims at bridging the social, regional and gender gaps in elementary education.

The SSA in Bihar is being implemented through the Bihar Education Project (BEP) Council for 2.6 crore children in the age group of 6-14 years. The Council, popularly known as BEP, is an organization dedicated for achieving Universal Elementary Education (UEE) in Bihar. The project specially emphasizes on the education of deprived sections of society, such as Scheduled Castes (SCs), Scheduled Tribes (STs), minorities, and girls. Along with SSA, the BEP is also responsible for other programmes, like National Programme for Education of Girls at Elementary Level (NPEGEL), a special module of SSA which provides additional support for enhancing girl's education over and above the normal SSA interventions. The programme provides for setting up of a model school in every cluster with intense community mobilization and supervision of girls' enrolment in schools. This scheme is implemented in Educationally Backward Blocks (EBBs) which have been selected on the basis of twin criteria of Female Rural Literacy rate being below the national average and Gender Gap in literacy being above the national average. However, the scheme has been delinked from the support of the central government with effect from 2015-16 and it now stands transferred to the states. The NPEGEL also covers those blocks which are not under EBB, but where at least 5 percent of population is SC/ST and SC/ST female literacy is below 10 per cent and also selected urban slums.

The Kasturba Gandhi Balika Vidyalaya (KGBV) scheme was launched by the central government in August, 2004 for setting up residential schools at upper primary level for girls, belonging predominantly to the SC, ST, OBC and minorities in difficult areas. The core aim of the KGBV scheme is to provide access to upper primary education for disadvantaged girls in the age group of 10-14 in EBBs. These girls generally remain outside the educational system due to persistent socio-economic and cultural reasons. The scheme provides for a minimum reservation of 75 percent of the seats for girls belonging to SC, ST, OBC or minority communities. Further, priority for the remaining 25 percent is accorded to girls from families below poverty line. Since 2007, the KGBV has been merged with the SSA programme, as a separate component of that programme.

Rahstriya Madhyamik Shiksha Abhiyan (RMSA) is a Centrally Sponsored Scheme which was launched in 2009. It aims at enhancing access to secondary education. The goal of RMSA is to make secondary education of good quality available, accessible and affordable to all young students in the age group 15-16 years (classes IX and X). The major target of the scheme is — (i) universal access to secondary level education for all students in the age group 15-16 years by providing a secondary school within 5 kilometers of any habitation and a higher secondary school within 7 kilometers of any habitation and (ii) universal retention by 2020. The other objectives include improving quality of education imparted at secondary level through making all secondary schools conform to prescribed norms, and removing gender, socio-economic and disability barriers.

Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is again a Centrally Sponsored Scheme which was launched in 2013. It aims at providing strategic funding to eligible government higher educational institutions. It is a new flagship scheme of the central government that will pave the way for far reaching reforms at the state level. The key objectives of RUSA are to improve access, equity and quality in higher education through planned development of higher education at the state level. It is proposed to improve the Gross Enrolment Ratio of the country from 19 percent at present to 30 percent by 2020. It will help create new academic institutions and expand the existing institutions that are self-reliant in terms of quality education and professional management. The funding will be in the ratio of 65:35 for the central and state governments. The funding would flow from the central ministry through the state governments to the State Higher Education Councils, before reaching the identified institutions. The funding to states would be made on the basis of critical appraisal of State Higher Education Plans, which would take into account each state's strategy to address issues of equity, access and excellence in higher education.

Table 10.25 presents the approved budget and total expenditure of BEP in 2013-14 and 2014-15, along with its break-up among SSA, RMSA, RUSA and KGBV. It is apparent from the table that the major share of BEP expenditure is on SSA. In 2014-15, the expenditure on SSA was Rs. 5619 crores, nearly 96 percent of total expenditure. The expenditure as a percentage of budget was also the highest for SSA (78.5 percent). For both RMSA and RUSA, this ratio is very low at around 25 percent.

**Table 10.25 : Status of Fund Received and Expenditure by BEP**

(Rs. crore)

Programmes		APPROVED AWP & B	Fund Released				Total Expenditure	Expenditure as Percentage of AWP & B
			13 th Finance Commission	GOI	GOB	Total		
2014-15	RUSA	144.00	NIL	NIL	11.40	11.40	11.40	7.9
	RMSA	97.20	NIL	25.24	7.74	32.98	36.60	37.6
	SSA	7777.69	970.00	2131.14	1271.36	4372.50	5522.24	71.0
	KGBV	243.89	0.00	32.23	18.21	50.44	113.86	46.7
	TOTAL	8262.78	970.00	2188.61	1308.71	4467.32	5684.10	68.8
2015-16	RUSA	144.10	NIL	22.20	14.80	37.00	37.00	25.7
	RMSA	125.80	NIL	36.01	23.47	59.48	34.69	27.6
	SSA	7155.59	NIL	2436.72	2839.27	5275.99	5618.95	78.5
	KGBV	231.55	NIL	78.85	52.24	131.09	135.54	58.5
	TOTAL	7657.04	NIL	2573.78	2929.78	5503.56	5825.71	76.1

Note : AWP&amp;B = Annual Work Plan and Budget

Source : Bihar Education Project, GOB

**ASER Report Findings**

Although Bihar has made considerable progress in education over the years, there still persist problems related to quality of education. To evaluate the learning levels, Pratham, a reputed non-government organisation, has been conducting learning assessment tests in different states, including Bihar. Based on these tests, Pratham publishes ASER (Annual Status of Education Report) which is the largest annual survey that focuses on children's actual learning levels.

Table 10.26 shows assessment of learning outcomes in 2010, 2012, 2014 and 2016. The quality of learning in Bihar is not high, as in most other states of the country, despite improvements in the literacy figures in the recent decade. Infact, this quality has indeed been declining over the years, both in Bihar and India. As regards learning outcomes, the Report of 2016 states that, in Standard III, the percentage of students with satisfactory reading skills is lower in Bihar than the national average, while for mathematical skills it is nearly the same. For Standard V students also, the percentage of students with satisfactory reading skills is again lower for Bihar compared to India. However, for mathematical skills, the figures for Bihar are much higher than that of India. It is also important to note that although the learning outcomes are higher in private schools, the level is less than satisfactory even in those schools. These results emphasize the requirement of improving the quality of elementary education across the country, including Bihar.

**Table 10.26 : Percentage of Learning Outcomes based on ASER Report**

Year	Type of School	Standard III				Standard V			
		Reading Std. II Level Text		Simple Subtraction		Reading Std. II Level Text		Simple Division	
		Bihar	India	Bihar	India	Bihar	India	Bihar	India
2010	Government	22.8	16.8	43.5	33.2	57.9	50.7	51.0	33.9
	Private	42.6	29.7	60.8	47.8	70.9	64.2	68.2	44.2
	All	23.7	19.6	44.3	36.3	58.4	53.7	51.7	36.2
2012	Government	14.2	16.7	25.1	19.8	43.1	41.7	30.0	20.3
	Private	52.7	33.8	68.4	43.4	74.8	61.2	60.6	37.8
	All	16.8	21.5	28.1	26.4	44.4	46.9	31.3	24.9
2014	Government	15.6	17.2	18.0	17.2	44.6	42.2	31.4	20.7
	Private	66.1	37.8	68.0	43.4	87.8	62.6	72.4	39.3
	All	21.9	23.6	24.2	25.4	48.2	48.0	34.9	26.1
2016	Government	13.9	19.3	20.0	20.2	38.0	41.6	28.9	21.1
	Private	62.5	38.0	72.0	44.0	82.6	62.9	72.5	37.9
	All	20.8	25.2	27.3	27.7	41.8	47.8	32.6	26.0

Source : ASER Report

### Higher Education

Higher education is of vital importance for the state, as it is a powerful tool to build knowledge-based society of the present century. With greater reliance on technology-intensive inputs in manufacturing, the need for specialized skill and knowledge is always high for speeding up economic growth. The higher education sector in Bihar comprises college and university education, both for general and technical streams (Table 10.27). Presently, 22 universities are running in the state, of which 21 are traditional universities and 1 of them is an open university. There are also 15 research institutes in the state. In 2015, there were 276 government colleges and 468 local body colleges. To ensure the delivery of quality education, teachers' training is very important, and there are 60 teacher training institutes in Bihar in 2015; there is an increase of 17 such institutions, between 2013 and 2015. In 2015, there were 23 engineering colleges in Bihar, compared to 10 colleges in 2013.

**Table 10.27 : Institutions of Higher Education**

Type of Institutions/Year	2013	2014	2015
Universities			
Central University	1	2	2
State Public University	14	14	14
Institute of National Importance	3	3	3
State Open University	1	1	1
Institute Under State Legislative Act	1	1	1
Deemed University	1	1	1
Total	<b>21</b>	<b>22</b>	<b>22</b>
Research Institute	15	15	15
Colleges			
Government Colleges/Constituent College	278	278	276
Local Body Colleges/Affiliated College	387	416	468
P.G Center/Off-Campus Center	9	9	9
Recognized Centre	13	13	16
Total	687	716	769
Technical Institutes			
Education/Teacher Training Centre (Primary)	42	43	60
Engineering College	10	24	23
Total	52	67	83

Source : Department of Education, GOB

The district-wise details of affiliated and constituent colleges and technical colleges for 2013-14, 2014-15 and 2015-16 are given in Table A 10.17 and A 10.18 (Appendix). According to Table A 10.18, there are 499 colleges of Arts, Fine Arts, Social Work, Science and Commerce, 23 Engineering colleges, 17 Medical colleges and 205 colleges of other streams. Due to resource constraints, the state government alone is not able to fulfill the demand for higher education. Thus, a number of private educational institutes have been set up in the state in technical, medical and vocational streams compared to the recent past.

### Art, Culture and Youth

The youths are the most valuable human resource of every society. Bihar has 24.2 percent of the population belonging to the age group 15-29 years. The art and culture of Bihar are a vast continuum, evolving incessantly since time immemorial. Therefore, the preservation of Bihar's

rich cultural heritage and promotion of all forms of art and culture are of considerable importance. For overall development of youth and culture, the state government has taken several steps which are:

- The archaeological site of ancient Nalanda Mahavihara has been included in the list of UNESCO's World Heritage Site.
- Munger Museum with four galleries displaying antiquities/artifacts was opened for the public visitors. A new Museum building has been constructed at Bhagalpur in addition to one existing in the campus. The antiquities/artifacts collected in the Patna Museum are being displayed in three new galleries.
- The state government is planning for a theme parks at the Jananayak Karpoori Thakur Smriti Sanghralhalaya, Patna and the archaeological site at Taradih (Bodh Gaya).
- The process has begin for establishment of a Film City at Rajgir in order to promote film industry and associated activities.
- The scheme for development of the Budhha Smriti Stupa-cum- Samyak Darshan Museum at Vaishali has been approved. An amount of Rs. 152.37 crore has been sanctioned for the scheme and 72.94 acres of land has been allotted for the construction of the building.
- About 15 sites were inspected and evaluated for their archaeological potentials which include Jamaluddin Chak (Patna), Aldhanna (Nalanda), Eksara (Nalanda), Pastan Navtoli (Madhubani), Lorikdih (Darbhanga), Raj Parisar, (Darbhanga), Rajnagar (Madhubani), Bhauragarhi (Madhubani), Kali Mandir (Gaya), Umga (Aurangabad), Sitathapa (Aurangabad), Satchandi (Aurangabad), Jain Mandir, Pachar Pahad (Aurangabad), Chakka (Darbhanga) and Maheshia (Sitamarhi).
- Eklavya Rajya Awasiya Khel Prashikshan Kendra scheme is running under the larger scheme of Mukhyamantri Khel Vikas Yojana. Under this scheme, school students are trained in order to promote various games. In 2016-17, 6 new centres have been sanctioned for this, whereas 16 such centres are already running.
- On the occasion of National Sports Day, sportspersons who have either represented the nation in international events or have won medals at the national level competition are felicitated by organizing sports programme. Under this scheme, 359 sportspersons and coaches were felicitated in 2016-17.



## **10.4 Social Welfare**

To ensure that the growth process is inclusive, it is necessary for any state to implement social welfare programmes. Such welfare programmes in Bihar now cover Dalits, Mahadalits, Backward Classes, Extremely Backward Classes, Minorities, Women and other weaker sections.

### Welfare of Scheduled Caste and Scheduled Tribe

The state government had created a separate Department in 2007 for the welfare of scheduled castes and tribes in Bihar. There are 22 castes in Bihar which are listed as Scheduled Castes (SC) which account for 15.9 percent of its population, while communities listed as Scheduled Tribes (ST) make up 1.3 percent of the state's population, according to 2011 census. The Department of Scheduled Caste and Scheduled Tribe runs various programmes for their economic, educational and social upliftment which are listed below:

- An amount of Rs. 189.95 crores has been allotted in 2015-16 for Post-Matric Scholarship Scheme. Till date, 81,750 SC / ST students have been benefited by this scheme.
- A sum of Rs. 805.88 crore has been allotted in 2015-16 under Pre-Matric Scholarship Scheme, and about 59 lakhs students have been benefitted from this scheme.
- Under the Chief Minister Merit Scholarship Scheme, started from 2008-09, a scholarship of Rs. 10,000 is given to SC/ST students, who have passed matric examination of Bihar School examination Board with first division. For those SC/ST students who pass with second division, the scheme provides for a scholarship of Rs. 8000.
- The state government has also decided to award an amount of Rs. 15,000 to SC/ST girl students, who have passed higher secondary examination with first division under a Scholarship Scheme. The scholarship amount is Rs. 10,000 for those girl students who pass with second division. In 2015-16, 138 thousand SC/ST students have been benefitted with an expenditure of Rs. 138.04 crores under this scheme .A budget provision of Rs. 166.20 crores has been made under State plan for 2016-17.
- Presently, 65 Residential Schools for Scheduled Castes and 15 Residential Schools for Scheduled Tribes are being run by the state government. A decision has been taken to convert Residential Schools into Model Schools. An amount of Rs. 17.55 crore is allocated for construction of each residential schools.

- The state government has also decided to establish 6 new Residential Schools in (Gaighat, Patna), (Motihara, Kisanganj), (Farbishganj, Araria), (Sugaon, Motihari), Aurangabad, (Sidhav, West Champaran) and 5 new Tribal Schools in West Champaran — Kadmahva (Bagaha-2), Madhubani (Ramnagar), Virviria (Mainatand) Belsandi (Gaunaha) and Dhamaura (Gaunaha).
- The state government has sanctioned construction of six new hostel buildings in Sitamarhi, Mahendru and Arfabad (Patna), Thakkar Bappa (Mujaffarpur), Khandakpar (Nalanda) and Mogalpura (Darbhanga).
- The Scheduled Caste and Scheduled Tribe (Prevention of Atrocity) Act, 1989 is being successfully implemented in Bihar to provide relief to the victims of atrocity. An expenditure of Rs. 16.15 crore have been incurred in 2015-16 to benefit 4050 persons with relief grant. Also, 282 victims/ dependents are being given a pension of Rs. 4500 per month.
- Under the Integrated Tharuhat Development Project, 1651 youth of Scheduled Tribe community have been given vocational training upto the year 2015-16

The total budget for SC/ST welfare increased from Rs. 1181.12 crore in 2014-15 to Rs. 1973.82 crore in 2015-16 (Table 10.28). However, the actual expenditure was Rs. 1740.67 crore in 2015-16, implying utilisation of 88.2 percent of the budget. The district-level data on physical and financial progress under major SC/ST welfare schemes in the state is presented in Table A 10.19 (Appendix).

**Table 10.28 : Overview of Outlay Allocation of SC and ST Welfare**

(Rs.crore)

Item	2014-15			2015-16		
	Budget	Actual Expenditure	Utilisation Percentage	Budget	Actual Expenditure	Utilisation Percentage
SC & ST	1124.46	966.09	85.9	1840.28	1644.79	89.4
Secretariat Service	3.26	3.02	92.7	4.15	3.39	81.9
Capital Outlay	50.40	34.21	67.9	119.42	88.49	74.1
Capital Outlay on Co-operatives	3.00	3.00	100.0	9.97	4.00	40.1
Total	1181.12	1006.32	85.2	1973.82	1740.67	88.2

Source : Department of SC/ST Welfare, GOB

### Mahadalit

The state government has undertaken several targeted schemes based on the report of the State Mahadalit Commission for the welfare of the most deprived amongst the scheduled castes. The Commission observed that, out of the 22 scheduled castes in Bihar, 21 are acutely deprived in terms of economic, social, cultural and political status. The population belonging to these castes have not benefited significantly from affirmative actions meant for the SC population. Thus, the idea of Bihar Mahadalit Vikas Mission is to fulfill the basic necessities of all Mahadalit communities. The specific attempt of the state government for the welfare of Mahadalits include:

- Under Darsharath Manjhi Kaushal Vikas Yojana, 2 lakh scheduled castes youth were enrolled for skill development training between 2013-14 to 2015-16
- The state government has decided to appoint Vikas Mitras at each Gram Panchayat and urban ward, dominated by Mahadalit community. This aims at an effective implementation of the various welfare schemes targeting the said community. A reservation of 50 percent is given to women in the selection of Vikas Mitras. Till date, 9555 Vikas Mitras have been appointed.
- Under Special School-cum- Hostel scheme, 150 Mahadalit girl students in Patna and 100 Mahadalit girl students in Gaya have been benefitted.
- Under Community Hall-cum-Workshed scheme, out of a total target of 5045, the construction is complete for 2732 units, with an expenditure of Rs. 243.5 crore. These Community Halls are expected to promote intellectual, cultural and sports development among the Mahadalit community.
- SAHAYTA Call Centres have been established across the state which have provided the desired assistance to a total of 99,047 SC/ST callers. An amount of Rs. 57.00 lakh has already been spent on this scheme.

The Bihar State Schedule Caste Cooperative Development Corporation was established in 1978 for all-round development of scheduled castes. The district offices of the Corporation are working in 36 districts of Bihar. In 2016-17, till September, Corporation had already benefited 825 people through its subsidy scheme, the total assistance being Rs. 239.46 lakh. Other two important schemes are Micro Credit Finance Scheme and Mahila Samridhi Scheme) which benefitted 215 and 214 needy people respectively. The loan limit for both these schemes is Rs. 30,000. The details are given in Table 10.29.

**Table 10.29 : Achievements of Bihar State Scheduled Caste Cooperative Corporation (2016-17)**

Name of the Scheme	No. of Beneficiaries	Amount of loan/subsidy (Rs. lakh)				
		Term Loan	Bank Loan	Margin Money	Subsidy	Total
MahilaSamridhi Scheme (NSFDC) (Rs. 0.30 lakh)	14	2.8	-	-	1.4	4.2
Small Business Scheme (NSFDC) (Rs. 0.50 lakh)	10	3.8	-	0.2	1.0	5.0
MahilaSamridhi Scheme (NSKFDC) (Rs. 0.30 lakh)	214	42.8	-	-	21.4	64.2
MahilaSamridhi Scheme (NSKFDC) (Rs. 0.50 lakh)	7	2.8	-	-	0.7	3.5
Micro Credit Finance Scheme (NSKFDC) (Rs. 0.30 lakh)	215	43.0	-	-	21.5	64.5
Micro Credit Finance Scheme (NSKFDC) (Rs. 0.50 lakh)	29	11.6	-	-	2.9	14.5
Term Loan Scheme (NSKFDC) (uptoRs. 0.50 Lakh)	14	5.6	-	-	1.4	7.0
Term Loan Scheme (NSKFDC) (uptoRs. 1.00 Lakh)	7	5.425	-	0.525	0.7	6.65
Subsidy Scheme (executed through Bank)	825	-	156.96	-	82.5	239.46
Total	1335	117.825	156.96	0.725	133.5	409.01

Note : NSFDC - National Scheduled Caste Finance Development Corporation

NSKFDC- National Safai Karmachari Finance Development Corporation

The figures in the parenthesis denote upper limit of the schemes in Rs. lakh

Source : Department of SC/ST Welfare, GOB

### Welfare of Backward and Extremely Backward Classes

The state government has constituted the Department of Welfare of Backward and Extremely Backward Classes for overall development of these communities in 2007-08. The backward classes are those castes that got notified by the state government. In Bihar, 131 backward castes account for almost 60 percent of its population. The summary of financial progresses for welfare of backward and extremely backward population is presented in Table 10.30. The table shows that the expenditure for the welfare of backward classes has been increasing steadily during the last five years. In 2011-12, the expenditure was Rs. 355 crore, which increased nearly eight times to reach the level of Rs. 2695 crore in 2015-16. The table also shows that the utilisation

percentage for these schemes has been consistently high. Except in 2013-14, the utilisation percentage was above 90 percent in all the years.

**Table 10.30 : Financial Progress of BC and EBC Welfare**

(Rs. crore)					
Details	2011-12	2012-13	2013-14	2014-15	2015-16
Total Outlay	365.91	825.92	1375.79	1477.97	2975.3
Total Approved Amount	365.91	825.92	1193.1	1477.97	2781.45
Total Expenditure	355.05	817.48	1193.1	1445.4	2695.07
Utilisation percentage	97.0	99.0	86.7	97.8	90.6

Source : Department of BC and EBC Welfare, GOB

The welfare measures undertaken for backward and extremely backward classes are as follows:

- Under Chief Minister Backward Classes Merit Scholarship Scheme, 1,44,974 students were awarded scholarships.
- Hostels are being constructed in all districts under Jannayak Karpuri Thakur Extremely Backward Class Welfare Hostels Scheme. Presently, hostellers are being admitted in 11 districts — Nalanda, Buxar, Kaimur, Madhubani, Banka, Jamui, Katihar, Sheikhpura, Gaya, Bhagalpur and Kishanganj.
- Under Pre-Matric Scholarship Scheme, 183 lakh OBC students have been benefited in 2015-16. Similarly, under Post-Matric Scholarship Scheme, 378 thousand OBC students have been benefited in 2015-16 .
- In 2016-17, 23 lecturers/ teachers have been re-engaged on contractual basis in 12 OBC girls' residential higher secondary schools.
- Pre-examination training centres have been established in 8 universities of the state in 2015-16, which provide free training for competitive examination for students belonging to BC and EBC categories for their selection in administrative services.

The physical and financial details of allocation for different welfare schemes for the backward and extremely backward population is presented in Table 10.31.

**Table 10.31 : Physical and Financial Details of BC and EBC Welfare Department**

Year	No. of Beneficiaries	Fund Allocation (Rs. lakh)	No. of Beneficiaries	Fund Allocation (Rs. lakh)	No. of Beneficiaries	Fund Allocation (Rs. lakh)
	Stipend for students of primary, middle and high school		Post-Matric Scholarship		OBC Girls' Higher Secondary Residential School (12 nos.)	
2011-12	323313	2517	126938	15206.9	3080	485
2012-13	4300000	58696	225000	24628.2	800	100
2013-14	9800000	116824	36368	5815	2019	585
2014-15	12200000	105470	244121	36997	2499	726
2015-16	18300000	225398.34	378544	61977.83	2499	977.2
	Mukhyamantri Medhavriti Yojana for EBC students		Stipend for students in technical courses		Construction of 38 Jannayak Karpuri Thakur Hostels for EBC Students	
2011-12	53000	5300	850	17	Under Construction	160
2012-13	42000	4200	1650	30		187
2013-14	35000	3500	1500	30		935
2014-15	40000	4000	1500	30		-
2015-16	144974	14497.4	3750	75		500

Source : Department of Backward and Extremely Backward Class Welfare, GOB

### Minority Welfare

The Indian Constitution is committed to the equality of citizens and it is the responsibility of the state to protect the rights of minorities in matters of language, religion and culture. According to 2011 census, the religious minorities constitute 17.3 percent of the population of Bihar, with 16.9 percent Muslims and 0.4 percent belonging to other religions like Buddhists, Jains, Sikhs, and Christians. Muslims constitute a large part of the population in Kishanganj (68.0 percent), Katihar (44.5 percent), Araria (42.9 percent) and Purnea (38.5 percent). In order to safeguard the welfare of these minorities, the Department of Minority Welfare was established in Bihar in 1991. The achievement of the Department in recent years is as follows:

- Under Mukhyamantri Alpsankhayak Rojgar Rin Yojana , a sum of Rs. 89.86 crore was allotted for providing self-employment to 8732 minority people upto December, 2016
- Under Muslim Divorcee Women Assistance Programme, economic assistance of Rs. 10,000 was given to 11,527 divorced Muslim women up to August, 2016.

- Under Mukhyamantri Alpsankhayak Vidyarthi Protsahan Yojana, a sum of Rs. 119.00 crore was allotted which has benefited 1,23,129 minority students in 2016-17.
- Till December 2016, 401 minority candidates have been trained in Central Institute of Plastic Engineering Technology (CIPET), Hajipur under Mukhya Mantri Shram Shakti Yojana. Presently, 26 minority candidates are undergoing training in tailoring trade under Raymonds Limited. Already 216 persons were made employable through training in Raymonds limited, Patna.
- Mazharul Haque Arbi and Farsi University has been appointed as the nodal agency for imparting training to minority candidates for appearing in various competitive examinations. Till 2015-16, 77 candidates were imparted coaching for BPSC (Mains) and 120 for examination of railway, banking and SSC etc. A target for training of 500 students was set for financial year 2016-17.
- Annual grant to Bihar Haj Committee has been increased from Rs. 40 lakh to Rs. 60 lakh to provide better facilities to pilgrims going for Haj every year. In 2016, 6597 pilgrims and 34 Khadimul Hujjaj under the leadership of one supervisor was sent to Saudi Arabia.
- A sum of Rs. 25.05 crore was distributed among 2888 minority students for technical and higher education under Mukhyamantri Alpsankhayak Shiksha Rin Yojana.
- Training in different traits of computer were given to 189 candidates by Micro, Small and Medium Enterprises (MSME) Tool Room and Training Centre in Patna which is an institution of the central government.

### **10.5 Women Empowerment**

Empowerment of women is critical for the very development of any society, since it enhances both the quality and the quantity of human resources available for development. Women's security, decision-making power, and mobility are three indicators for women's empowerment. The data from the NFHS-4 survey on women's decision-making power shows that about 75.2 percent of the women in Bihar took decisions on their own regarding household issues. This shows that the state's effort for women empowerment are reaping results. But it is obvious that the present efforts should be strengthened and continued for women development.

Bihar has shown a decrease in sex ratio from 919 in 2001 to 916 in 2011. In comparison, the sex ratio of India improved to 940 in 2011 from 933 in 2001. This drop in sex ratio is one of the serious concerns of the state government. Although the literacy rate for females has shown a sharp increase from 33.1 percent in 2001 to 53.3 percent in 2011, a jump of 20 percentage points, but the gender disparity still persists. Gender inequality arising out of social norms and cultural traditions is now being addressed directly or indirectly through efforts which change attitude and perception towards women. The state government has been publishing its gender budget since 2008-09. A brief overview of the gender budget for 2011-12 to 2015-16 is presented in Table 10.32. From the table, it is evident that the total outlay for women development has increased over the years, although it recorded a drop in 2015-16. The share of the outlay for women in total state budget has been about 11 percent, with some year-to-year variation. Similarly, outlays for women as percentage of GSDP have been around 2.7 percent.

**Table 10.32 : Gender Budget Summary**

(Amounts in Rs. crore)

Details	2011-12	2012-13	2013-14	2014-15	2015-16
Category I schemes for Women (100 % beneficiaries)	1995.6	2293.8	2740.2	3920.1	2996.1
Category II schemes for Women (30 % beneficiaries)	4092.5	5541.8	7008.0	8658.3	8130.9
Total outlays for women	6088.1	7835.6	9748.2	12578.3	11127.0
Total Outlays for related Departments	27841.6	34615.4	19003.5	33703.7	31010.8
Outlays for women as a percent of total outlays of related Departments	21.9	22.6	51.0	37.2	35.9
Total size of the state budget	60181.7	69206.6	80405.3	94698.0	112327.8
Share of outlays in the state budget (percent)	10.1	11.3	12.1	13.3	9.9
GSDP	247287.3	282167.6	329474.6	410862.4	486430.4
Outlays for women as percent of GSDP	2.5	2.8	3.0	3.1	2.3

Source : Department of Finance, GOB

Table 10.33 represents the data for the gender budget items under different departments. Here one notices increase in outlays for both Category I and Category-II schemes in 2016-17, compared to 2015-16. It is also clear from the table that Rural Development, Social Welfare and Education are the three major Departments, through which women-oriented programmes are implemented.



**Table 10.33 : Overview of Gender Budget**

(Rs. crore)

Name of Department	2015-16				2016-17 (BE)			
	Total Budget	Expenditure for women			Total Budget	Expenditure for women		
		Under Category I	Under Category II	Total		Under Category I	Under Category II	Total
Social Welfare	3969.78	296.51	1610.58	1907.09	4756.85	436.10	1926.28	2362.38
SC and ST welfare	1428.31	0.00	413.61	413.61	1568.80	0.00	465.51	465.51
Public Health Engineering	1099.81	0.00	329.94	329.94	1326.37	0.00	397.91	397.91
Minority Welfare	162.83	2.00	48.25	50.25	56.21	2.00	16.26	18.26
Education Department	13723.38	517.06	4020.60	4537.65	15630.43	309.36	4422.89	4732.25
Health	624.39	85.12	0.00	85.12	2116.63	1890.14	0.00	1890.14
Rural Development	4186.72	2056.65	549.02	2605.67	5059.42	2889.82	650.88	3540.70
Urban Development and Housing	3.21	0.00	1.61	1.61	12.15	0.00	6.08	6.08
Panchayati Raj	224.59	0.00	112.29	112.29	335.00	0.00	167.50	167.50
Labor Resource	7.10	2.70	1.32	4.02	11.80	5.50	0.12	5.62
Planning and Development	898.76	0.00	269.63	269.63	667.48	0.00	0.00	0.00
BC and EBC Welfare	1955.80	9.77	583.81	593.58	1953.60	10.16	583.43	593.59
Revenue and Land Reforms	26.25	26.25	0.00	26.25	20.75	20.75	0.00	20.75
Art, Culture and Youth	45.71	0.00	13.71	13.71	38.75	0.00	11.62	11.62
Industry Department	262.62	0.00	29.73	29.73	212.89	0.00	63.87	63.87
Agriculture Department	1877.93	0.00	56.09	56.09	2156.41	0.00	646.92	646.92
Information & Tecnology	1.59	0.00	0.43	0.43	2.10	0.99	0.89	1.88
Building Construction	294.27	0.00	90.28	90.28	271.44	0.00	77.23	77.23
Home Dept	217.75	0.00	0.00	0.00	151.99	0.00	61.48	61.48
Total	31010.80	2996.06	8130.90	11126.96	36349.06	5564.82	9498.86	15063.68

Source : Department of Finance, GOB

**Table 10.34 : Flagship Schemes to Address Gender Disparity**

(Rs. crore)

Scheme	2011-12	2012-13	2013-14	2014-15	2015-16 (RE)
Lakshmibai Social Security Pension Scheme	106.43	41.06	32.51	39.90	35.00
Nari Shakti Yojana	30.00	0.00	0.00	0.00	1.00
Mukhyamantri Kanya Vivah Yojana	59.88	82.43	108.83	134.91	59.00
Mukhyamantri Kanya Suraksha Yojana	100.00	6.56	0.00	89.99	45.40
Total	296.31	130.05	141.34	264.80	140.40

Source : Department of Finance, GOB

The direct interventions by the state government to address gender disparity comprise two main heads: child protection (Kanya Suraksha Yojana to stop female foeticide) and social and economic security (Lakshmibai Social Security Pension scheme, Kanya Vivah Yojana and Nari Shakti Yojana) (Table 10.34). The Nari Shakti Yojana was launched in 2007-08 throughout the state with an objective to empower women and make them self-reliant. The programme envisages holistic empowerment of women in economic, social and cultural spheres. The total expenditure under these flagship schemes has varied over the years. It was high in 2011-12 and 2014-15, but was much lower in 2015-16 (Rs. 140.40 crore).

### Economic Empowerment

- Under Mukhyamantri Nari Shakti Yojana, Women Development Council (WDC) has initiated important programmes like working women hostels, service oriented skill trainings, women help line etc. to execute Women Empowerment Policy, 2015.
- Under the Saat Nishchay programme, Aarakshit Rozgar Mahilaon Ka Adhikar is one of the commitments, and 35 percent reservation in recruitment is being given to women across services of the state government from January, 2016 onwards.
- The newly elected PRI representatives were provided training at district level on Acts related to women. They were also provided with capacity building material on the subject.
- A total of 5.57 lakh women's self help groups (SHG) has been formed till September, 2016, under Jeevika. Apart from other benefits, the SHGs promote small savings. At present, 32,431 village organisations and 365 cluster level federations are in operation. Between 2007-08 and 2015-16, through Jeevika's initiatives, 2.21 lakh SHGs were linked to banks. The progress in financial inclusion has entailed institutional loan of Rs. 1300 crore to the SHGs till 2015-16.

- The state government is implementing Aajeevika Skills and Mahila Kisan Sashaktikaran project, after a re-structuring of the National Rural Livelihood Mission. It has sanctioned an additional exemption of 3 percent in the interest rate on the loans taken for initiating an enterprise by poor women under the scheme.
- An exemption of 100 percent is allowed on the vehicle tax for the three-wheelers, taxi, motor cabs, maxi cabs which are registered in the name of women and being operated by them.
- The state government has decided to raise a new women battalion in Bihar Armed Forces and establish Women Police Stations in all the districts of the state. A reservation of 35 percent is given to women in direct recruitment for the posts of constable and in appointing junior inspector in the police force. There is a proposal to establish a special battalion consisting of scheduled caste women.
- Women and girls from the marginalized sections of society are provided with skill development training in 12 different sectors like IT, Apparel, Beauty and Wellness, Healthcare, Retail, Security, Telecom, handicraft etc. for ensuring sustained source of livelihood. Till date, 4320 women/girls have been trained and a target of 19,000 was set for 2016-17.

### Social Empowerment

- Training of para legal volunteers on Acts related to women has started in all districts. About 1500 para legal volunteers were trained on Gender issues and Domestic Violence Act, 2005 till December, 2015. About 600 para legal volunteers were selected from each block to provide two-day capacity building training on Child Marriage Prohibition Act, Dowry Prohibition Act and Working Women Sexual Harassment of Women at Workplace Act, 2013.
- A referral unit at the community level will be established to help the victimized women for quick disposal of the cases in coordination with Helpline and other service providers.
- Women Development Council (WDC) has established a Gender Resource Centre which is functioning efficiently and is implementing gender sensitization programmes in co-ordination with different Departments. Recently, WDC has been nominated as a nodal agency for Gender Budgeting by the Department of Social Welfare.
- Women Helplines have been established in 38 district of Bihar under Mukhyamantri Nari Shakti Yojana to provide free psychological and legal aid to the victims of domestic violence. An amount of Rs. 44.45 lakh has been spent for running Women Helpline in 2014-15.

**Table 10.35 : Number of Cases Registered and Disposed under Social Empowerment**

Types of Cases	2014-15		2015-16	
	Registered	Disposed	Registered	Disposed
Domestic Violence	3888	3287 (84.5)	4090	3370 (82.4)
Dowry Abused	663	629 (94.9)	578	459 (79.4)
Dowry Death	14	16 (114.3)	55	53 (96.4)
Second Marriage	142	105 (73.9)	118	114 (96.6)
Assets Related	127	160 (126)	95	102 (107.4)
Rape & Trafficking Cases	83	120 (144.6)	44	44 (100)
Sexual abuse at office/ other places	117	90 (76.9)	86	85 (98.8)
Others	1778	1494 (84)	1773	1586 (89.5)
Total Cases	6812	5901 (86.6)	6839	5813 (85)

Note : Figures in parentheses denote the percentage of cases disposed

Source : Bihar State Women Development Corporation, GOB

Table 10.35 shows the number of cases registered and disposed of relating to offences against women. Out of all the cases, the registration of cases is the highest for domestic violence. It is interesting to note that about 85 percent of all cases were disposed of in 2015-16. Next to domestic violence were the cases registered under dowry abuse and 79 percent of such cases were disposed in 2015-16.

## 10.6 Labour Resource and Welfare

Unorganised sector constitutes a large part of labour force in Bihar. More than 70 per cent of workforce is engaged in agriculture or other agricultural pursuits. Faster and inclusive growth needs special attention to the informal economy. Sustaining high levels of growth is also intertwined with meeting the need of those engaged in informal economy in terms of credit, skills, technology, marketing and infrastructure etc. Thus, the state government makes substantial efforts for the welfare of these workers through a number of programmes — rural training camps, rehabilitation of child labour, insurance schemes, proper implementation of labour laws and the like.

According to 2011 Census, the Work Participation Rate (WPR), defined as the proportion of workers (main and marginal) to total population was 33.4 percent in Bihar, compared to 39.8 percent in whole of India (Table 10.36). The WPR in the age group of 15-59 years is 54.5 percent in Bihar which is 4.0 percentage points lower than that of India (58.5 percent). Remarkably, work participation of aged population (60+ years) is 9.1 percentage points higher in Bihar, compared to that of India. However, regarding the child labour, the share for both India

and Bihar lies between 3 to 4 percent. Between 2001 and 2011, there has been notable decrease in the share of main workers, with an increase in the share of marginal workers. This trend is observed both in Bihar and the entire country.

**Table 10.36 : Age-wise Work Participation Rates (WPR) in India and Bihar**

(Percentage)

Age Group	2001			2011			Increase / Decrease (2001 to 2011)		
	Total	Main	Marginal	Total	Main	Marginal	Total	Main	Marginal
India									
5 - 14 years	5.0	2.3	2.7	3.9	1.7	2.2	-1.1	-0.6	-0.5
15 - 59 years	61.1	48.1	13.0	58.5	44.4	14.0	-2.6	-3.7	1.1
60+ years	40.3	32.1	8.2	41.6	31.4	10.2	1.3	-0.7	2.0
Age Not Stated	31.1	24.2	6.9	36.0	26.2	9.7	4.9	2.1	2.8
<b>All age</b>	<b>39.1</b>	<b>30.4</b>	<b>8.7</b>	<b>39.8</b>	<b>29.9</b>	<b>9.9</b>	<b>0.7</b>	<b>-0.5</b>	<b>1.2</b>
Bihar									
5 years to 14 years	4.7	2.3	2.4	3.8	1.6	2.2	-0.9	-0.7	-0.2
15 year-59 years	57.2	43.4	13.8	54.5	33.7	20.8	-2.6	-9.6	7.0
60+ years	46.3	37.5	8.9	50.7	32.6	18.1	4.4	-4.9	9.3
Age Not Stated	24.5	18.9	5.6	33.3	20.5	12.8	8.8	1.6	7.2
<b>All age</b>	<b>33.7</b>	<b>25.4</b>	<b>8.3</b>	<b>33.4</b>	<b>20.5</b>	<b>12.8</b>	<b>-0.3</b>	<b>-4.8</b>	<b>4.5</b>

Source : Census of India

In order to expand the employment opportunities and fulfill the target of Aarthik Hal, Yuvaon ko Bal, one of the components of Saat Nischay, the state government has launched Kushal Yuva Programme on October 2, 2016. Under this programme, youth between age group of 15-25 years will receive training in communication skills (Hindi and English), software skills and basic computer skills. The total training will be of 240 hours, with 80 hours of communication skills, 120 hours of basic computer skills and 40 hours of other software skills. This scheme will be implemented by the Labour Department. Recently, Bihar Skill Development Mission (BSDM) has been established which will run one skill training centre in each block in the state where those skills will be imparted. Some of the other initiatives of the state government for labour welfare are :

- One women Industrial Training Institutes (ITI) will be established in each district and each subdivision of the state. Women ITIs are already functioning in 7 districts of the state (Buxar, Nawada, Arwal, Jamui, Sitamarhi, Bettiah and Katihar) and 18 sub-divisions (Paliganj, Rajgir, Daudnagar, Haveli Khadagpur, Tarapur, Naugachhiya, Muzaffarpur (West), Pupari, Mahua, Narkatiyaganj, Biraul, Rosra, Manihari, Araria, Vaaysi, Banmankhi, Simri Bahtiyarpur and Udakishunganj.
- With an objective to provide overseas placement, Bihar Kaushal Vikash Mission has invited proposals from Industrial Houses and International Placement Agencies to establish employment-cum-skill development centres on Recruit, Train and Deploy (RTD) model for youth of Bihar.
- In order to enhance the scope of skill development, 149 courses have been selected by Bihar Skill Development Mission (BSDM) and it is being implemented by 15 Departments of the state government.
- Under Child Labour Tracking System (CLTS), the tracked child will be ensured rehabilitation, economically and educationally. They will also be prevented from becoming a part of vicious circle of child labour. Till date, 2700 children have been tracked and rehabilitated.

The state government has also taken several initiatives to create job opportunities for the unemployed youth. The district and state-level employment-cum-guidance fairs are being organised under the vocational guidance programme. In 2016-17, ‘employment-cum-vocational guidance fair’ were organised in all 38 districts by the Employment Exchanges. These fairs were organised at the district, division, and university levels. Till the month of September, 2016, a total of 50 job fairs were organised and more than 30,771 candidates have been selected for jobs by different private companies. Under centrally sponsored scheme of Model Career Centres (MCC), the planned centres have been established in sub-regional Employment Exchanges at Patna and Muzaffarpur. A plan for setting up such a centre in Bhagalpur has also been approved. Table 10.37 shows the initiatives taken by the state government for expansion of employment services and online facilities in the Employment Exchanges.

**Table 10.37 : Physical & Financial Progress of Schemes for Modernization of Employment Exchanges**

(Amount in Rs. lakh)

Programme	2014-15		2015-16	
	Budget outlay	Finacial Achievement	Budget outlay	Finacial Achievement
Expansion of Employment services	50.6	50.1	90.0	43.8
E- Process of Employment Services operation	32.4	31.0	150.0	103.5
Strengthening of vocational guidance programme	90.0	77.2	185.0	110.8
Establishment of Overseas Bureau	15.0	-	3000.0	0
Scheme for development of weaker section	12.0	11.0	15.0	13.4
Sub-Total	200.0	169.3	3440.0	271.5
Construction of combined labour buildings	480.0	430.0	1000.0	283.4
Total	680.0	599.3	4440.0	554.9

Source : Department of Labour Resource, GOB

**10.7 Social Security for Old and Disabled**

The purpose of any social security measure is to give households the confidence that their level of living and quality of life will not be eroded because of economic uncertainties or old age. Development is a comprehensive process and it must include the old and disabled. Thus, in alliance with the central government, the state government is presently promoting several social security schemes for persons of old age, widows and disabled people. The total expenditure on the pension schemes has increased from Rs. 98.34 crore in 2005-06 to Rs. 3030.42 crore in 2015-16.

Table 10.38 shows the summary of these welfare schemes, implemented by the central and state governments. In 2015-16, the total expenditure on schemes for Old Age, Widow and Persons with Disabilities has been 95 percent of the total budget outlay and 64 lakh people were benefited by these schemes.

**Table 10.38 : Schemes for Old Age, Widow and Persons with Disabilities**

Schemes	2014-15			2015-16		
	Budget Outlay (Rs. lakh)	Expenditure (Rs. lakh)	No. of Beneficiaries ('000)	Budget Outlay (Rs. lakh)	Expenditure (Rs. lakh)	No. of Beneficiaries ('000)
Indira Gandhi National Old Age Pension Scheme	152251.00	149438.10	4651	126351.00	97146.98	4478
Indira Gandhi National Widow Pension Scheme			583		18305.77	560
Indira Gandhi National Disability Pension Scheme			52		2920.65	93
National Family Benefit Scheme			27		6550.00	33
NSAP (State Share)	82369.00	82369.00	5285	113221.80	113221.80	NA
Laxmi Bai Pension Scheme	28200.00	28125.00	639	35848.00	35748.00	552
Bihar State Disability Pension Scheme	24300.00	24270.00	589	32205.00	32205.25	634
State Social Security Pension Scheme	1680.00	1680.00	68	3493.60	3493.60	82
Kabir Funeral Grant Scheme	6000.00	6000.00	-	1400.00	1400.00	47
Chief Minister Family Benefit Scheme	200.00	200.00	-	150.00	150.00	1
Bihar Shatabdi Leper Welfare Scheme	350.00	325.00	-	1000.00	990.00	6
Chief Minister Disabled Strengthening Scheme (SAMBAL)	3700.00	1200.00	-	900.00	900.00	-
Mukhyamantri Bhikshavritti Nivaran Yojana & Old Age Home (SAHARA)	850.00	850.00	-	550.00	50.00	-
Old Age Home	2950.00	450.00	-	100.00	100.00	-
Old Age Home Construction	2400.00	-	-	200.00	0.00	-
Bihar Aids Pirit Kalyan Yojna	100.00	100.00	-	100.00	100.00	-
BIHAR Strategic Integrated Projects	6800.00	200.00	-	16236.49	1780.00	-
<b>Total</b>	<b>312150.00</b>	<b>295207.10</b>	<b>11894</b>	<b>331755.89</b>	<b>315062.05</b>	<b>6485</b>

Note : NSAP = National Social Assistance Programme

Source: Department of Social Welfare, GOB

Apart from the above schemes, new initiatives are also being taken by the state government for the social security of senior citizens and those suffering from physical disabilities:

- The pension amount is being transferred to the beneficiaries' bank account under direct benefit transfer scheme since 2016-17. Till September, 2016, out of 62.42 lakh pensioners, bank account has been opened for 46.15 lakh pensioners. Of these 46.15 lakh bank



accounts, 36.30 lakh accounts have been verified by Public Finance Management System (PFMS).

- Aadhar number of 20.73 lakh pensioners has been uploaded on E-labharthi portal.
- Under Bihar Shatabdi Unorganised Sector Workers and Artisans Social Security Scheme 2011, Bihar State Labour Welfare Society has been formed with the objective to provide social security to the unorganized workers and artisans of the state.
- An uniformity has been established by making the pension amount as Rs. 400 per month for every pensioner scheme since July, 2014. The state government contributes from its internal resources to the national pension programmes — Rs. 200 in National Old Age Pension, Rs. 100 in National Widow Pension, and Rs. 100 in National Disability Pension Scheme. This contribution implied an expenditure of Rs. 1132.21 crore in 2015-16 by the state government.
- The state government has initiated Chief Minister Family Benefit Scheme from 2012-13. This provides one time grant of Rs. 20,000 in case of death, due to either accident or criminal activity. An amount of Rs. 2.00 crore and Rs. 1.50 crore have been spent in the 2014-15 and 2015-16 respectively under this scheme.
- Darbhanga, Banka, West Champaran, Supaul, Gaya, Kishanganj and Patna have been selected in the current year for opening of special school for blind girls known as 'DRISHTI'. The sanction has been given to start 'KOSHISH', a special school for deaf and dumb girls at Motihari.

Land has been provided at Patna, Purnea and Gaya for construction of 3 Old Age Homes. There are already Old Age Home (SAHARA) in Patna, Gaya, Muzaffarpur, Purnea and Bhagalpur which are being managed by non-government voluntary organizations.

## APPENDIX

**Table A 10.1 : Number of Health Institutions in Bihar (As on September, 2016)**

Districts	District Hospital	Referral Hospital	SDH	PHC	Health Sub-Centre	APHC	PHC+HSC +APHC	Population / Health Institution
Patna	0	4	4	23 (1)	387	67	477	12038
Nalanda	1	3	2	20 (2)	374	43	437	6496
Bhojpur	1	3	2	14 (4)	302	27	343	7818
Buxar	1	0	1	11 (3)	161	28	200	8447
Rohtas	1	2	2	19 (4)	186	32	237	12231
Kaimur	1	2	1	11 (3)	197	19	227	7041
Gaya	1	2	2	24 (8)	440	47	511	8511
Jehanabad	1	2	0	7 (1)	92	30	129	8525
Arwal	1	0	0	5 (1)	64	28	97	7151
Nawada	1	2	1	14 (4)	325	34	373	5886
Aurangabad	1	3	1	11 (5)	216	60	287	8699
Saran	1	3	2	20 (8)	413	43	476	8182
Siwan	1	3	1	19 (7)	367	48	434	7586
Gopalganj	1	3	1	14 (5)	186	22	222	11286
W. Champaran	1	2	2	18 (6)	368	31	417	9325
E. Champaran	1	1	3	27 (13)	327	54	408	12347
Muzaffarpur	1	2	0	16 (9)	480	83	579	8249
Sitamarhi	1	1	2	17 (5)	212	36	265	12727
Sheohar	1	0	0	5 (1)	29	10	44	14583
Vaishali	1	2	2	16 (1)	336	29	381	9078
Darbhanga	0	2	1	18 (6)	259	50	327	11931
Madhubani	1	4	4	21 (2)	429	69	519	8499
Samastipur	1	1	4	20 (8)	362	46	428	9819
Begusarai	1	2	4	18 (3)	287	22	327	8894
Munger	1	0	2	9 (2)	154	21	184	7314
Sheikhpura	1	1	0	6 (0)	85	17	108	5785
Lakhisarai	1	1	0	6 (1)	102	13	121	8137
Jamui	1	3	0	10 (3)	279	27	316	5501
Khagaria	1	1	0	7 (1)	171	25	203	8131
Bhagalpur	1	3	2	16 (1)	258	55	329	9068
Banka	1	3	2	11 (2)	265	32	308	6522
Saharsa	1	0	1	10 (2)	152	26	188	10003
Supaul	1	2	1	11 (1)	178	20	209	10465
Madhepura	1	0	1	13 (1)	272	34	319	6236
Purnea	1	2	3	14 (2)	334	38	386	8328
Kishanganj	1	1	0	7 (0)	136	9	152	10977
Araria	1	2	1	9 (0)	199	30	238	11618
Katihar	1	2	2	16 (3)	345	45	406	7472
<b>Bihar</b>	<b>36</b>	<b>70</b>	<b>55</b>	<b>533 (130)</b>	<b>9729</b>	<b>1350</b>	<b>11612</b>	<b>8842</b>

Note : Figure in paranthesis represent upgradation of PHC to CHC (30 beded)

Source : Bihar State Health Society, Patna;GoB

**Table A 10.2 : District-wise Employment of Regular and Contractual Doctors**

Disticts	No. of sanctioned post currently		Number of Doctors Employed				No. of doctors/lakh population*
	Regular	Contracutual	Regular		Contractual		
			2015-16	2016-17*	2015-16	2016-17*	
Patna	422	92	262	343	73	25	6
Nalanda	158	95	58	128	65	93	8
Bhojpur	194	65	82	138	61	17	6
Buxar	115	54	67	66	33	2	4
Rohtas	248	89	44	81	45	25	4
Kaimur	114	48	44	74	27	10	5
Gaya	272	106	70	106	69	20	3
Jehanabad	150	46	43	85	38	11	9
Arwal	80	20	15	28	16	7	5
Nawada	198	45	43	76	18	4	4
Aurangabad	97	47	37	52	28	19	3
Saran	165	94	74	102	74	52	4
Siwan	162	10	48	74	0	106	5
Gopalganj	101	69	31	0	45	0	0
W. Champaran	132	83	46	71	52	25	2
E. Champaran	190	128	60	91	90	61	3
Muzaffarpur	274	64	77	108	49	15	3
Sitamarhi	170	68	35	43	23	46	3
Sheohar	75	19	29	39	14	4	7
Vaishali	145	69	106	175	46	12	5
Darbhanga	190	72	53	92	48	19	3
Madhubani	235	85	51	101	65	34	3
Samastipur	192	95	100	103	48	18	3
Begusarai	122	94	51	73	51	18	3
Munger	110	44	46	88	31	6	7
Sheikhpura	93	24	30	38	21	40	12
Lakhisarai	114	30	25	56	14	4	6
Jamui	103	38	34	60	28	6	4
Khagaria	101	44	27	49	32	12	4
Bhagalpur	206	64	44	41	46	42	3
Banka	118	47	39	88	28	8	5
Saharsa	163	45	41	70	22	3	4
Supaul	182	48	47	97	33	12	5
Madhepura	190	67	20	49	31	25	4
Purnea	226	64	56	53	51	29	3
Kishanganj	83	28	21	34	9	5	2
Araria	179	36	39	86	19	5	3
Katihar	192	78	57	96	45	12	4
<b>Bihar</b>	<b>6261</b>	<b>2314</b>	<b>2052</b>	<b>3154</b>	<b>1488</b>	<b>852</b>	<b>4</b>

Note : \* denotes data from April to September, 2016

Source : Bihar State Health Society, Patna;GoB

### A 10.3 : District-wise Employment of Grade A Nurses

Districts	No. of sanctioned post currently		Number of Grade A Nurses Employed						No. of Grade A Nurses / lakh population*
	Regular	Contractual	Regular			Contractual			
			2014-15	2015-16	2016-17*	2014-15	2015-16	2016-17*	
Patna	161	46	27	158	158	101	23	23	3
Nalanda	88	59	19	92	88	51	32	32	4
Bhojpur	54	24	7	47	40	16	10	10	2
Buxar	53	74	3	33	45	19	2	2	3
Rohtas	88	20	7	32	54	48	18	18	2
Kaimur	38	44	2	17	29	25	9	9	2
Gaya	146	25	13	77	97	84	16	16	3
Jehanabad	85	34	15	60	76	65	3	3	7
Arwal	81	50	0	6	20	20	3	3	3
Nawada	82	175	10	67	75	42	13	13	4
Aurangabad	128	22	5	5	16	37	6	6	1
Saran	86	25	7	24	9	29	5	5	0
Siwan	110	16	3	14	14	9	2	2	0
Gopalganj	84	18	6	15	29	18	4	4	1
W. Champaran	120	37	28	50	39	28	8	8	1
E. Champaran	165	48	16	25	17	48	37	37	1
Muzaffarpur	152	54	15	53	41	17	1	1	1
Sitamarhi	116	17	9	15	33	61	14	14	1
Sheohar	34	9	0	2	11	9	5	5	2
Vaishali	118	51	7	45	69	68	49	49	3
Darbhanga	154	30	4	29	28	19	9	9	1
Madhubani	114	34	13	26	60	24	7	7	1
Samastipur	146	24	20	97	103	88	6	6	3
Begusarai	128	24	22	116	118	76	4	4	4
Munger	114	34	13	103	103	21	0	0	8
Sheikhpura	56	32	1	33	33	40	4	4	6
Lakhisarai	58	60	8	38	53	26	7	7	6
Jamui	62	13	3	31	40	51	12	12	3
Khagaria	48	13	10	59	57	43	6	6	4
Bhagalpur	108	165	8	75	75	95	7	7	3
Banka	64	18	8	60	58	45	7	7	3
Saharsa	52	30	17	30	47	37	38	38	4
Supaul	107	172	2	25	39	36	2	2	2
Madhepura	58	9	1	6	31	21	8	8	2
Purnea	110	112	12	62	79	96	9	9	3
Kishanganj	44	34	2	18	23	22	2	2	1
Araria	96	39	6	14	25	32	7	7	1
Katihar	104	28	7	47	47	54	17	17	2
Bihar	3612	1719	356	1706	1979	1621	412	412	2

Note: \* denotes data from April to September, 2016

Source: Bihar State Health Society, Patna;GoB

#### A 10.4 : District-wise Employment of ANM

Districts	No. of sanctioned post currently		Number of ANM Employed						No. of ANM/ lakh population*
	Regular	Contractual	Regular			Contractual			
			2014-15	2015-16	2016-17*	2014-15	2015-16	2016-17*	
Patna	1155	418	506	491	939	415	375	247	21
Nalanda	575	370	397	389	750	367	358	210	33
Bhojpur	583	350	313	295	493	344	345	228	27
Buxar	382	162	144	158	207	161	161	105	18
Rohtas	593	308	222	211	409	291	255	102	17
Kaimur	325	287	135	119	245	225	223	97	21
Gaya	816	541	450	479	640	487	487	303	22
Jehanabad	351	151	140	176	243	126	192	195	39
Arwal	140	79	55	65	87	65	62	60	21
Nawada	443	525	178	208	221	118	118	87	14
Aurangabad	502	308	253	280	233	302	292	167	16
Saran	789	643	323	291	358	432	382	360	18
Siwan	664	370	235	224	329	262	265	122	14
Gopalganj	512	186	201	199	206	133	113	107	12
W. Champaran	785	895	254	295	295	646	582	582	22
E. Champaran	1017	503	291	316	242	476	470	399	13
Muzaffarpur	956	583	582	592	702	379	379	248	20
Sitamarhi	684	213	242	216	217	118	100	96	9
Sheohar	131	172	20	18	85	127	111	101	28
Vaishali	699	418	419	329	444	306	296	266	20
Darbhanga	784	419	208	220	301	312	312	248	14
Madhubani	895	702	368	283	321	299	299	239	13
Samastipur	854	486	456	494	587	434	437	200	19
Begusarai	591	360	350	382	493	328	347	217	24
Munger	272	165	147	141	358	161	159	54	30
Sheikhpura	127	97	107	105	105	91	90	46	24
Lakhisarai	200	102	132	125	230	101	100	87	32
Jamui	287	212	180	139	211	195	103	82	17
Khagaria	332	193	168	159	228	186	173	110	20
Bhagalpur	567	362	338	333	618	349	336	247	29
Banka	406	265	242	241	360	227	243	142	25
Saharsa	379	152	141	138	152	152	155	137	15
Supaul	446	246	70	68	90	187	186	152	11
Madhepura	399	153	78	77	101	99	87	72	9
Purnea	655	370	219	198	280	361	392	182	14
Kishanganj	338	186	91	78	82	155	149	126	12
Araria	561	290	137	129	153	193	216	213	13
Katihar	614	345	207	234	311	323	320	231	18
<b>Bihar</b>	<b>20809</b>	<b>12587</b>	<b>8999</b>	<b>8895</b>	<b>12326</b>	<b>9933</b>	<b>9670</b>	<b>6867</b>	<b>18</b>

Note: \* denotes data from April to September, 2016

Source: Bihar State Health Society, Patna;GoB

**Table A 10.5 : District-wise Employment of Asha Worker**

Districts	2013-14		2014-15		2015-16		2016-17*	
	Target	Selection	Target	Selection	Target	Selection	Target	Selection
Patna	3233	3018	5842	3018	3461	3043	3461	2992
Nalanda	2365	2313	2880	2316	2415	2316	2415	2316
Bhojpur	2264	2199	2731	2188	2331	2079	2331	2079
Buxar	1493	1474	1708	1474	1551	1474	1551	1494
Rohtas	2490	2430	2962	2454	2538	2465	2538	2465
Kaimur	1462	1462	1628	1462	1570	1483	1570	1509
Gaya	3514	3442	4395	3448	3878	3448	3878	3448
Jehanabad	871	870	1126	870	990	870	990	870
Arwal	773	746	773	750	749	749	749	747
Nawada	1959	1928	2221	1956	2004	1957	2004	1957
Aurangabad	2160	2142	2542	2142	2299	2213	2299	2243
Saran	3459	3385	3955	3402	3602	3406	3602	3408
Siwan	3008	2834	3334	2822	3136	2822	3136	2822
Gopalganj	2371	2336	2564	2374	2396	2390	2396	2395
W. Champaran	3206	3043	3935	3108	3644	3135	3644	3178
E. Champaran	4326	3906	5099	4060	4684	4060	4684	4060
Muzaffarpur	3984	3856	4805	3858	4510	3880	4510	3880
Sitamarhi	2965	2912	3424	2919	3259	2919	3259	2919
Sheohar	580	572	656	572	646	572	646	572
Vaishali	2969	2888	3498	3019	3265	3121	3265	3129
Darbhanga	3550	3100	3941	3118	3729	3192	3729	3242
Madhubani	4046	3682	4487	3853	4298	3902	4298	3910
Samastipur	3835	3779	4266	3794	4161	3798	4161	3798
Begusarai	2629	2410	2973	2403	2493	2410	2493	2410
Munger	961	956	1369	952	1014	953	1014	953
Sheikhpura	520	476	637	476	526	476	526	478
Lakhisarai	802	756	1002	901	900	898	900	898
Jamui	1520	1504	1762	1505	1654	1509	1654	1509
Khagaria	1412	1399	1668	1468	1571	1499	1571	1501
Bhagalpur	2311	2236	3040	2232	2435	2236	2435	2236
Banka	1820	1782	2037	1809	1966	1819	1966	1819
Saharsa	1622	1471	1902	1471	1823	1471	1823	1471
Supaul	1928	1912	2229	2093	2140	2111	2140	2111
Madhepura	1711	1655	2004	1674	2049	1704	2049	1704
Purnea	2723	2634	3268	2709	2983	2817	2983	2833
Kishanganj	1368	1280	1690	1290	1585	1298	1585	1298
Araria	2376	2365	2812	2365	2637	2237	2637	2284
Katihar	2549	2549	3074	2720	2795	2770	2795	2770
<b>Bihar</b>	<b>87135</b>	<b>83702</b>	<b>104239</b>	<b>85045</b>	<b>93687</b>	<b>85502</b>	<b>93687</b>	<b>85708</b>

Note: \* denotes data from April to September, 2016; Target and selection for 2014-15 also include urban ASHA while other years only represent rural ASHA, Target for 2015-16 and 2016-17 are the same

Source: Bihar State Health Society, Patna;GoB

**Table A 10.6 : District-wise Coverage of Institutional Deliveries under Janani Suraksha Yojana (JSY)**

(Figures in '000)

Districts	2012-13	2013-14	2014-15	2015-16	2016-17 (Sept. 2016)
Patna	69	78	83	64	31
Nalanda	47	46	41	41	19
Bhojpur	29	43	39	38	17
Buxar	27	24	25	21	9
Rohtas	33	33	43	27	12
Kaimur	22	26	23	24	11
Gaya	44	52	63	49	23
Jehanabad	25	21	16	16	6
Arwal	9	10	10	9	4
Nawada	29	33	32	30	14
Aurangabad	37	36	36	33	15
Saran	54	52	57	48	25
Siwan	41	45	48	39	14
Gopalganj	38	40	37	38	18
W. Champaran	66	73	57	67	31
E. Champaran	55	67	73	62	30
Muzaffarpur	52	56	69	54	26
Sitamarhi	31	49	49	43	21
Sheohar	7	10	9	9	5
Vaishali	62	63	50	60	30
Darbhanga	44	51	57	48	23
Madhubani	51	54	65	54	27
Samastipur	81	94	61	88	43
Begusarai	51	57	43	55	26
Munger	20	23	20	21	10
Sheikhpura	14	13	9	13	6
Lakhisarai	13	16	14	16	7
Jamui	19	29	25	27	13
Khagaria	29	36	24	34	16
Bhagalpur	41	50	44	52	23
Banka	31	36	29	35	16
Saharsa	36	41	27	40	19
Supaul	43	46	32	46	22
Madhepura	32	38	29	37	20
Purnea	62	73	47	71	32
Kishanganj	24	27	24	21	10
Araria	40	51	40	51	26
Katihar	52	56	44	52	26
<b>Bihar</b>	<b>1469</b>	<b>1647</b>	<b>1498</b>	<b>1534</b>	<b>731</b>

Source : Bihar State Health Society, Patna;GoB

**Table A 10.7 : Prevalence of Diseases (2016-17, Sept. 2016)**

Districts	Acute Diarrhoeal Disease (including acute Gastroenteritis)	Bacillary Dysentery	Viral Hepatitis	Enteric Fever	Malaria
Patna	9760	6463	2666	2918	146
Nalanda	4425	2481	0	382	485
Bhojpur	5772	3164	0	880	0
Buxar	898	2677	87	4204	113
Rohtas	10608	1950	242	10516	1166
Kaimur	5981	3699	29	13511	344
Gaya	3135	2459	18	1669	1810
Jehanabad	5415	3174	8	3717	17
Arwal	1666	1781	0	1510	0
Nawada	5882	3671	6577	1579	2336
Aurangabad	2794	1019	0	961	96
Saran	1973	904	0	395	27
Siwan	11048	5266	0	5930	303
Gopalganj	6703	548	35	391	22
W. Champaran	13942	1229	0	0	0
E. Champaran	1725	1322	0	925	0
Muzaffarpur	14374	3413	616	6590	939
Sitamarhi	12037	5902	0	3843	1
Sheohar	3391	2367	0	2598	3
Vaishali	13639	17576	5860	21389	810
Darbhanga	4155	2177	1021	1898	171
Madhubani	13431	8040	290	8860	473
Samastipur	16474	11266	1	10846	420
Begusarai	14088	3639	0	14027	38
Munger	8099	5605	88	291	3438
Sheikhpura	610	473	0	40	43
Lakhisarai	1435	788	0	324	92
Jamui	6394	6081	7	3685	1148
Khagaria	18427	2744	0	73	11
Bhagalpur	236	104	0	0	0
Banka	2564	794	0	813	54
Saharsa	6016	3856	6	1302	0
Supaul	3388	1935	1	993	2
Madhepura	38	0	0	0	0
Purnea	13202	5536	0	3452	13
Kishanganj	3944	911	179	1586	21
Araria	10995	11935	0	1010	1538
Katihar	11719	6396	0	2333	1344
<b>Bihar</b>	<b>270383</b>	<b>143345</b>	<b>17731</b>	<b>135441</b>	<b>17424</b>

Source : State Health Society, Patna, GOB

(Continued)



**Table A 10.7 : Prevalence of Diseases (2016-17, Sept. 2016) (Contd.)**

Districts	Fever of Unknown origin (PUO)	Acute Respiratory Infection (ARI) / Influenza like Illness (ILI)	Pneumonia	Dog bite	Any other State Specific Disease (Specify)	Unusual Syndromes NOT Captured Above (Specify clinical)
Patna	10327	10566	1655	15916	3980	10491
Nalanda	8037	7677	903	11813	0	0
Bhojpur	54	17499	9	12219	343	0
Buxar	4426	29871	1471	1940	0	0
Rohtas	10876	21643	1137	10623	0	0
Kaimur	7230	10424	580	3241	0	0
Gaya	14442	11814	554	2585	1991	0
Jehanabad	14209	17928	364	6421	0	495
Arwal	5225	2100	88	3508	0	0
Nawada	16935	4912	1792	4465	2446	4749
Aurangabad	530	2513	1120	2523	228	0
Saran	4695	3411	92	2080	0	0
Siwan	35485	41796	608	9632	1395	1052
Gopalganj	29367	31078	266	3777	0	0
W. Champaran	2090	17737	1241	4077	1243	0
E. Champaran	5104	1541	780	473	405	170
Muzaffarpur	30021	24126	1088	15079	0	935
Sitamarhi	7193	18084	1549	9677	131	0
Sheohar	1467	3074	0	2405	0	0
Vaishali	26354	62227	1376	14576	0	0
Darbhanga	4684	16966	47	5191	525	2528
Madhubani	12538	25486	332	6034	651	0
Samastipur	29299	37795	174	5471	875	0
Begusarai	28838	25191	145	9943	0	0
Munger	11207	15887	101	4129	0	0
Sheikhpura	1268	2128	68	1072	0	0
Lakhisarai	422	4069	89	1123	1105	663
Jamui	51307	41903	810	2397	0	0
Khagaria	55581	53838	361	1904	0	0
Bhagalpur	26459	14062	0	6913	0	0
Banka	1760	23506	52	2314	0	0
Saharsa	13227	35047	106	1198	0	0
Supaul	9599	3051	29	2156	590	748
Madhepura	0	0	0	0	0	0
Purnea	14626	28011	210	2646	868	0
Kishanganj	2337	3946	0	1420	232	0
Araria	2610	3714	162	1124	863	303
Katihar	7283	16676	140	1771	122	1747
<b>Bihar</b>	<b>507112</b>	<b>691297</b>	<b>19499</b>	<b>193836</b>	<b>17993</b>	<b>23881</b>

Source : State Health Society, Patna, GOB

(Concluded)

**Table A 10.8 : District-wise Hand Pumps under National Rural Drinking Water Programme (NRDWP)**

District	Number of Handpumps Installed					Slipped back Habitations /Water quality Problems Covered				
	2011-12	2012-13	2013-14	2014-15	2015-16	2011-12	2012-13	2013-14	2014-15	2015-16
Patna	1422	1481	1553	769	1000	407	852	666	725	373
Nalanda	1473	1122	998	976	1079	457	300	459	333	36
Bhojpur	1299	830	840	514	669	214	280	221	285	244
Buxar	63	425	341	643	389	75	121	147	217	13
Rohtas	1641	1024	1185	1011	1066	328	97	227	316	253
Kaimur	409	426	452	578	761	164	28	158	234	91
Gaya	1869	1315	2105	1602	1739	738	300	511	449	469
Jehanabad	599	769	831	185	206	67	84	140	145	87
Arwal	738	132	259	141	196	47	50	81	107	92
Nawada	842	464	726	817	856	372	136	256	309	207
Aurangabad	1407	468	789	898	994	183	239	202	248	250
Saran	592	1719	953	603	771	458	451	591	407	305
Siwan	961	1452	1643	693	736	355	628	379	346	337
Gopalganj	342	829	1165	553	497	170	273	350	275	269
W.Champaran	1154	1616	710	495	871	156	88	295	313	311
E. Champaran	1268	3397	1646	746	968	536	851	694	733	492
Muzaffarpur	1245	108	2297	550	1179	347	104	153	395	222
Sitamarhi	1197	541	979	440	1113	171	230	312	402	21
Sheohar	181	94	149	274	106	67	39	121	145	108
Vaishali	477	1082	1534	844	255	396	343	427	314	0
Darbhangha	981	2134	1160	989	588	131	432	412	398	0
Madhubani	2891	1885	1612	750	762	237	529	508	432	167
Samastipur	983	1046	931	1052	937	447	183	157	398	336
Begusarai	533	858	810	564	695	413	375	564	383	58
Munger	334	220	253	588	453	80	24	223	249	301
Sheikhpura	235	523	189	239	230	75	30	146	50	0
Lakhisarai	177	450	828	462	485	169	260	409	243	174
Jamui	742	639	444	819	700	416	568	334	246	250
Khagaria	39	299	416	303	273	80	30	119	28	14
Bhagalpur	549	1199	735	1159	1346	301	90	523	522	223
Banka	355	780	472	674	1132	325	323	418	481	281
Saharsa	-	639	713	413	232	112	375	311	418	311
Supaul	307	736	741	442	458	298	769	700	492	358
Madhepura	24	273	788	484	551	288	267	292	263	132
Purnea	317	143	1396	871	575	1101	595	320	320	9
Kishanganj	447	216	680	554	437	345	243	410	133	84
Araria	193	387	567	516	480	534	341	377	281	71
Katihar	-	205	399	76	906	183	32	174	201	240
<b>Bihar</b>	<b>28286</b>	<b>31926</b>	<b>34289</b>	<b>24287</b>	<b>26691</b>	<b>11243</b>	<b>10960</b>	<b>12787</b>	<b>12236</b>	<b>7189</b>

Source: Department of Public Health Engineering, GoB;

**Table A 10.9 : District-wise Achievement in Individual Household Lantrine (IHHL) under Central Rural Sanitation Programme**

Districts	Population Share	2011-12	2012-13	2013-14	2014-15	2015-16		
		Total (BPL + APL)				BPL	APL	BPL+APL
Patna	5.6	27518 (3.3)	26263 (3.3)	13516 (8.4)	4323 (2.6)	11016	11393	22409 (5.3)
Nalanda	2.8	19618 (2.3)	9991 (1.3)	702 (0.4)	5716 (3.5)	14427	921	15348 (3.6)
Bhojpur	2.6	29261 (3.5)	24566 (3.1)	2733 (1.7)	4421 (2.7)	4633	3715	8348 (2)
Buxar	1.6	3779 (0.4)	12335 (1.5)	1923 (1.2)	1909 (1.2)	4529	2825	7354 (1.7)
Rohtas	2.9	25707 (3.1)	19842 (2.5)	3951 (2.4)	2271 (1.4)	4864	2126	6990 (1.6)
Kaimur	1.6	15666 (1.9)	15794 (2.0)	5981 (3.7)	4814 (2.9)	4779	2324	7103 (1.7)
Gaya	4.2	31914 (3.8)	17949 (2.3)	6793 (4.2)	4151 (2.5)	8565	12557	21122 (5)
Jehanabad	1.1	12924 (1.5)	1859 (0.2)	1734 (1.1)	4356 (2.6)	5699	1786	7485 (1.8)
Arwal	0.7	10057 (1.2)	8142 (1.0)	454 (0.3)	1113 (0.7)	1266	1534	2800 (0.7)
Nawada	2.1	25374 (3.0)	5604 (0.7)	1329 (0.8)	11559 (7)	5402	2404	7806 (1.8)
Aurangabad	2.4	17549 (2.1)	10322 (1.3)	1443 (0.9)	1474 (0.9)	2824	1669	4493 (1.1)
Saran	3.8	34427 (4.1)	19817 (2.5)	1935 (1.2)	3803 (2.3)	6107	3052	9159 (2.1)
Siwan	3.2	40325 (4.8)	36264 (4.6)	10828 (6.7)	2509 (1.5)	3859	6361	10220 (2.4)
Gopalganj	2.5	19392 (2.3)	25202 (3.2)	939 (0.6)	1805 (1.1)	8123	5942	14065 (3.3)
W. Champaran	3.8	33897 (4.0)	32441 (4.1)	20403 (12.6)	7507 (4.5)	7769	4431	12200 (2.9)
E.Champaran	4.9	43759 (5.2)	44148 (5.5)	9109 (5.6)	4689 (2.8)	8285	2873	11158 (2.6)
Muzaffarpur	4.6	45798 (5.5)	15434 (1.9)	1293 (0.8)	7407 (4.5)	21569	4614	26183 (6.1)
Sitamarhi	3.3	8925 (1.1)	29876 (3.7)	10154 (6.3)	5580 (3.4)	12012	2081	14093 (3.3)
Sheohar	0.6	14843 (1.8)	13050 (1.6)	688 (0.4)	3196 (1.9)	11441	1811	13252 (3.1)
Vaishali	3.4	25758 (3.1)	37032 (4.6)	6798 (4.2)	5709 (3.5)	6996	5296	12292 (2.9)
Darbhanga	3.8	56949 (6.8)	47217 (5.9)	4927 (3)	5556 (3.4)	8788	10447	19235 (4.5)
Madhubani	4.3	6960 (0.8)	3983 (0.5)	1732 (1.1)	8808 (5.3)	7107	2790	9897 (2.3)
Samastipur	4.1	40026 (4.8)	62167 (7.8)	6527 (4)	5582 (3.4)	11382	3562	14944 (3.5)
Begusarai	2.8	22293 (2.7)	28653 (3.6)	154 (0.1)	5762 (3.5)	5220	2935	8155 (1.9)
Munger	1.3	3905 (0.5)	6163 (0.8)	2343 (1.4)	2364 (1.4)	7025	3456	10481 (2.5)
Sheikhpura	0.6	5016 (0.6)	10871 (1.4)	500 (0.3)	1445 (0.9)	2434	2922	5356 (1.3)
Lakhisarai	1.0	15841 (1.9)	11900 (1.5)	3529 (2.2)	2083 (1.3)	5482	1038	6520 (1.5)
Jamui	1.7	12443 (1.5)	20491 (2.6)	4059 (2.5)	2126 (1.3)	3959	2753	6712 (1.6)
Khagaria	1.6	16399 (2.0)	14652 (1.8)	1940 (1.2)	1928 (1.2)	4694	1465	6159 (1.4)
Bhagalpur	2.9	24685 (2.9)	22177 (2.8)	5266 (3.3)	5274 (3.2)	9902	1470	11372 (2.7)
Banka	2.0	15809 (1.9)	13780 (1.7)	3183 (2)	6117 (3.7)	4586	6200	10786 (2.5)
Saharsa	1.8	14812 (1.8)	15806 (2)	2219 (1.4)	7517 (4.5)	10823	9688	20511 (4.8)
Supaul	2.1	22936 (2.7)	20534 (2.6)	1499 (0.9)	2355 (1.4)	5013	2683	7696 (1.8)
Madhepura	1.9	25793 (3.1)	19442 (2.4)	2143 (1.3)	1377 (0.8)	5954	4745	10699 (2.5)
Purnea	3.2	27328 (3.3)	31051 (3.9)	10446 (6.5)	11638 (7)	4767	2384	7151 (1.7)
Kishanganj	1.6	11735 (1.4)	17347 (2.2)	1508 (0.9)	1554 (0.9)	10770	1565	12335 (2.9)
Araria	2.7	10777 (1.3)	14341 (1.8)	21 (0)	1701 (1)	11726	1437	13163 (3.1)
Katihar	3.0	19729 (2.3)	30193 (3.8)	6944 (4.3)	3958 (2.4)	6568	4511	11079 (2.6)
<b>Bihar</b>	<b>100</b>	<b>839927 (100)</b>	<b>796699 (100)</b>	<b>161646 (100)</b>	<b>165457 (100)</b>	<b>280365</b>	<b>145766</b>	<b>426131 (100)</b>

Note: Figures in parenthesis denote percent share;  
Source : Public Health Engineering Department, GoB

**Table A 10.10 : Total Enrolment in Primary and Upper Primary Levels (All)**

(lakh)

Districts	2013-14			2014-15		
	Primary	Upper Primary	Total	Primary	Upper Primary	Total
Patna	7.25	3.22	10.46	7.26	3.07	10.34
Nalanda	5.46	2.71	8.17	5.59	2.71	8.31
Bhojpur	3.79	1.69	5.47	3.84	1.90	5.74
Buxar	3.23	1.33	4.56	3.55	1.57	5.12
Rohtas	3.22	1.08	4.30	3.25	1.10	4.36
Kaimur	3.43	1.56	4.98	2.30	1.25	3.55
Gaya	6.07	2.60	8.67	5.43	2.35	7.78
Jehanabad	1.56	0.71	2.26	1.56	0.71	2.26
Arwal	1.75	0.85	2.60	1.08	0.49	1.56
Nawada	3.53	1.28	4.82	3.70	1.51	5.21
Aurangabad	3.40	1.60	5.00	3.73	1.80	5.53
Saran	5.37	2.56	7.93	5.79	2.84	8.63
Siwan	4.62	2.18	6.80	4.58	2.23	6.81
Gopalganj	3.52	1.52	5.04	3.37	1.61	4.98
W. Champaran	5.67	1.77	7.44	6.52	2.15	8.67
E. Champaran	11.72	4.56	16.28	11.72	4.56	16.28
Muzaffarpur	9.96	4.31	14.28	9.91	4.20	14.10
Sitamarhi	5.06	1.74	6.80	5.17	1.78	6.95
Sheohar	0.92	0.26	1.18	0.92	0.26	1.18
Vaishali	5.03	1.74	6.78	5.16	1.75	6.91
Darbhanga	5.25	2.09	7.34	5.33	2.23	7.57
Madhubani	6.85	1.89	8.74	6.85	1.89	8.74
Samastipur	6.06	2.58	8.64	6.18	2.63	8.81
Begusarai	4.72	2.05	6.77	4.69	2.18	6.87
Munger	1.89	0.76	2.65	1.89	0.76	2.65
Sheikhpura	0.99	0.30	1.29	0.95	0.40	1.36
Lakhisarai	1.53	0.64	2.18	1.54	0.65	2.18
Jamui	3.11	1.13	4.23	3.13	1.21	4.34
Khagaria	2.36	0.89	3.25	2.57	1.15	3.72
Bhagalpur	4.17	1.79	5.95	4.12	1.80	5.93
Banka	3.18	1.30	4.48	3.04	1.31	4.35
Saharsa	3.91	0.68	4.59	3.04	1.22	4.25
Supaul	4.07	1.04	5.11	4.25	1.09	5.34
Madhepura	3.09	1.19	4.28	3.90	1.52	5.42
Purnea	4.94	1.68	6.62	4.87	1.80	6.67
Kishanganj	1.87	1.84	3.71	1.94	1.92	3.86
Araria	3.38	2.04	5.42	3.38	2.04	5.42
Katihar	5.28	2.27	7.55	5.24	2.27	7.51
<b>Bihar</b>	<b>161.20</b>	<b>65.41</b>	<b>226.62</b>	<b>161.35</b>	<b>67.91</b>	<b>229.26</b>

Source: Department of Education, GOB

**Table A 10.11 : Total Enrolment in Primary and Upper Primary Levels (SC)**

(lakh)

Districts	2013-14			2014-15		
	Primary	Upper Primary	Total	Primary	Upper Primary	Total
Patna	1.30	0.65	1.95	1.30	0.65	1.94
Nalanda	1.97	0.85	2.81	1.83	0.88	2.70
Bhojpur	0.74	0.37	1.11	0.79	0.32	1.10
Buxar	0.41	0.18	0.59	0.44	0.22	0.66
Rohtas	0.46	0.12	0.58	0.47	0.12	0.59
Kaimur	1.02	0.46	1.48	0.64	0.34	0.98
Gaya	2.22	0.80	3.02	2.19	0.83	3.01
Jehanabad	0.38	0.16	0.53	0.38	0.16	0.53
Arwal	0.26	0.10	0.37	0.17	0.08	0.24
Nawada	1.10	0.30	1.40	1.15	0.35	1.50
Aurangabad	1.13	0.37	1.50	1.17	0.52	1.69
Saran	0.81	0.34	1.15	0.90	0.39	1.29
Siwan	0.67	0.31	0.98	0.68	0.33	1.01
Gopalganj	0.60	0.26	0.85	0.61	0.26	0.88
W. Champaran	1.04	0.29	1.33	1.11	0.33	1.44
E. Champaran	1.17	0.35	1.52	1.17	0.35	1.52
Muzaffarpur	1.79	0.78	2.57	1.66	0.77	2.42
Sitamarhi	0.56	0.19	0.75	0.52	0.18	0.70
Sheohar	0.18	0.05	0.23	0.18	0.05	0.23
Vaishali	1.28	0.36	1.65	1.28	0.36	1.65
Darbhanga	1.03	0.35	1.38	1.13	0.39	1.52
Madhubani	1.23	0.23	1.46	1.23	0.23	1.46
Samastipur	1.29	0.47	1.76	1.31	0.48	1.79
Begusarai	0.79	0.29	1.07	0.81	0.33	1.14
Munger	0.38	0.12	0.51	0.38	0.12	0.51
Sheikhpura	0.24	0.06	0.30	0.17	0.05	0.22
Lakhisarai	0.29	0.10	0.39	0.29	0.11	0.40
Jamui	0.60	0.20	0.80	0.59	0.22	0.80
Khagaria	0.34	0.07	0.41	0.43	0.36	0.79
Bhagalpur	0.55	0.23	0.78	0.54	0.26	0.80
Banka	0.43	0.18	0.62	0.43	0.18	0.62
Saharsa	0.76	0.07	0.83	0.65	0.20	0.85
Supaul	0.68	0.11	0.79	0.71	0.11	0.82
Madhepura	0.48	0.16	0.64	0.60	0.27	0.87
Purnea	0.76	0.23	0.99	0.70	0.24	0.95
Kishanganj	0.17	0.05	0.22	0.18	0.07	0.24
Araria	0.17	0.08	0.24	0.17	0.08	0.24
Katihar	1.03	0.42	1.45	1.01	0.42	1.43
<b>Bihar</b>	<b>30.29</b>	<b>10.71</b>	<b>41.01</b>	<b>29.97</b>	<b>11.59</b>	<b>41.56</b>

Source : Department of Education, GOB

**Table A 10.12 : Total Enrolment in Primary and Upper Primary Levels (ST)**

lakh)

Districts	2013-14			2014-15		
	Primary	Upper Primary	Total	Primary	Upper Primary	Total
Patna	0.04	0.01	0.05	0.04	0.00	0.05
Nalanda	0.00	0.00	0.00	0.01	0.00	0.02
Bhojpur	0.04	0.02	0.06	0.04	0.02	0.06
Buxar	0.02	0.01	0.03	0.02	0.01	0.03
Rohtas	0.03	0.01	0.04	0.03	0.01	0.05
Kaimur	0.11	0.04	0.15	0.12	0.04	0.16
Gaya	0.00	0.00	0.01	0.00	0.00	0.00
Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00
Arwal	0.00	0.00	0.00	0.00	0.00	0.00
Nawada	0.02	0.00	0.02	0.02	0.00	0.02
Aurangabad	0.01	0.01	0.02	0.01	0.00	0.01
Saran	0.09	0.04	0.13	0.10	0.05	0.15
Siwan	0.19	0.10	0.29	0.20	0.10	0.29
Gopalganj	0.13	0.05	0.18	0.14	0.07	0.21
W. Champaran	0.46	0.16	0.62	0.48	0.19	0.67
E. Champaran	0.05	0.01	0.06	0.05	0.01	0.06
Muzaffarpur	0.03	0.01	0.04	0.03	0.01	0.04
Sitamarhi	0.00	0.00	0.00	0.00	0.00	0.00
Sheohar	0.01	0.00	0.02	0.01	0.00	0.02
Vaishali	0.00	0.00	0.00	0.00	0.00	0.00
Darbhanga	0.00	0.00	0.01	0.02	0.01	0.03
Madhubani	0.01	0.00	0.01	0.01	0.00	0.01
Samastipur	0.00	0.00	0.00	0.00	0.00	0.00
Begusarai	0.00	0.00	0.00	0.00	0.00	0.01
Munger	0.06	0.01	0.07	0.06	0.01	0.07
Sheikhpura	0.00	0.00	0.00	0.00	0.00	0.00
Lakhisarai	0.03	0.01	0.04	0.03	0.01	0.04
Jamui	0.23	0.06	0.28	0.22	0.07	0.29
Khagaria	0.00	0.00	0.00	0.01	0.00	0.01
Bhagalpur	0.13	0.05	0.18	0.13	0.06	0.19
Banka	0.17	0.05	0.23	0.18	0.05	0.23
Saharsa	0.01	0.00	0.01	0.03	0.00	0.03
Supaul	0.02	0.00	0.02	0.02	0.00	0.03
Madhepura	0.02	0.00	0.02	0.03	0.01	0.04
Purnea	0.32	0.12	0.44	0.32	0.11	0.43
Kishanganj	0.09	0.05	0.13	0.10	0.06	0.15
Araria	0.12	0.06	0.18	0.12	0.06	0.18
Katihar	0.54	0.18	0.72	0.51	0.17	0.68
<b>Bihar</b>	<b>3.01</b>	<b>1.07</b>	<b>4.08</b>	<b>3.11</b>	<b>1.15</b>	<b>4.26</b>

Source : Department of Education, GOB

**Table A 10.13 : District-wise Number of Primary and Upper Primary Schools in Bihar (2014)**

Districts	Primary	Primary with Upper primary	Primary with Upper Primary sec and higher sec.	Upper Primary Only	Upper Primary with sec. and higher sec.	Primary with Upper primary and secondary	Upper Primary with secondary	Total
Patna	2283	1450	28	18	16	46	35	3876
Nalanda	1408	1010	12	6	3	39	7	2485
Bhojpur	1209	828	7	26	1	61	21	2153
Buxar	705	455	3	15	1	32	13	1224
Rohtas	1391	997	13	9	2	66	17	2495
Kaimur	642	625	1	1	0	25	3	1297
Gaya	1746	1395	18	9	1	52	6	3227
Jehanabad	567	374	6	6	0	19	9	981
Arwal	348	219	1	4	0	3	1	576
Nawada	1007	831	6	2	1	25	3	1875
Aurangabad	946	1009	7	15	1	42	5	2025
Saran	1463	1063	6	23	3	48	4	2610
Siwan	1283	1046	2	20	2	49	1	2403
Gopalganj	1127	768	2	6	4	29	8	1944
W. Champaran	1651	1027	9	11	4	37	9	2748
E. Champaran	1873	1369	27	10	1	50	6	3336
Muzaffarpur	1790	1376	27	6	6	59	7	3271
Sitamarhi	1219	980	23	7	3	23	13	2268
Sheohar	237	190	4	1	2	7	0	441
Vaishali	1155	1054	7	1	2	50	14	2283
Darbhanga	1552	1043	34	7	6	53	4	2699
Madhubani	2274	1149	24	5	1	30	20	3503
Samastipur	1724	1057	7	20	0	26	2	2836
Begusarai	813	768	13	2	2	35	3	1636
Munger	596	476	3	6	0	33	2	1116
Sheikhpura	266	250	2	2	0	12	0	532
Lakhisarai	471	298	2	0	0	15	3	789
Jamui	903	903	0	0	2	18	2	1828
Khagaria	553	510	8	6	1	13	2	1093
Bhagalpur	1002	911	17	7	5	46	12	2000
Banka	1150	879	7	1	1	34	3	2075
Saharsa	776	597	7	3	1	14	6	1404
Supaul	1070	684	3	12	0	4	2	1775
Madhepura	761	766	2	10	1	12	3	1555
Purnea	1330	968	32	0	1	52	4	2387
Kishanganj	808	772	12	1	2	43	0	1638
Araria	1321	789	14	0	2	32	2	2160
Katihar	1105	905	8	0	2	31	1	2052
<b>Bihar</b>	<b>42525</b>	<b>31791</b>	<b>404</b>	<b>278</b>	<b>80</b>	<b>1265</b>	<b>253</b>	<b>76596</b>

Source: Department of Education, GOB

**Table A 10.14 : District-wise Number of Teachers at Primary and Upper Primary Level (2014)**

Districts	Primary	Primary with Upper primary	Primary with Upper Primary sec and higher sec.	Upper Primary Only	Upper Primary with sec. and higher sec.	Primary with Upper Primary sec	Upper Primary sec	Total
Patna	6413	10752	431	109	201	516	285	18707
Nalanda	4710	8704	185	46	45	354	78	14122
Bhojpur	3999	6611	279	181	15	627	170	11882
Buxar	2106	3921	154	117	40	441	92	6871
Rohtas	3993	8553	114	73	18	856	132	13739
Kaimur	2071	4896	10	8	0	289	18	7292
Gaya	4626	8495	498	66	3	452	44	14184
Jehanabad	1661	3571	256	68	0	273	81	5910
Arwal	1026	2273	28	37	0	38	10	3412
Nawada	3059	5694	121	18	16	211	20	9139
Aurangabad	2523	7030	184	123	21	417	70	10368
Saran	5369	9140	85	190	29	448	36	15297
Siwan	5835	10952	38	270	62	648	13	17818
Gopalganj	4449	7980	11	52	75	340	60	12967
W. Champaran	5901	7921	183	70	75	370	76	14596
E. Champaran	6994	11500	372	96	12	569	35	19578
Muzaffarpur	5530	10787	820	45	109	754	46	18091
Sitamarhi	3439	8016	289	46	30	208	86	12114
Sheohar	686	1566	26	10	20	96	0	2404
Vaishali	3959	9410	183	13	71	699	116	14451
Darbhanga	5156	8937	403	57	43	632	28	15256
Madhubani	7450	9126	161	61	22	232	85	17137
Samastipur	5731	9485	193	177	0	265	18	15869
Begusarai	3062	7876	211	17	16	499	21	11702
Munger	1434	3237	35	29	0	448	4	5187
Sheikhpura	707	1797	39	5	0	103	0	2651
Lakhisarai	1551	2757	91	0	0	141	40	4580
Jamui	2300	5584	0	0	11	189	17	8101
Khagaria	1563	4329	37	54	21	127	12	6143
Bhagalpur	3521	6866	360	69	100	486	83	11485
Banka	2393	3986	124	5	29	292	22	6851
Saharsa	2784	6387	146	28	22	185	20	9572
Supaul	3176	5299	21	91	0	29	14	8630
Madhepura	2104	6566	24	80	17	151	21	8963
Purnea	3537	7274	448	0	20	430	35	11744
Kishanganj	2301	5491	186	7	11	553	0	8549
Araria	4341	6475	135	0	31	331	16	11329
Katihar	4829	7613	92	0	29	371	6	12940
<b>Bihar</b>	<b>136289</b>	<b>256857</b>	<b>6973</b>	<b>2318</b>	<b>1214</b>	<b>14070</b>	<b>1910</b>	<b>419631</b>

Source: Department of Education, GOB



**Table A 10.15 : District-wise Coverage of MDMS (Class I-V)**

Districts	2013-14			2014-15			2015-16		
	Total Enrolment (in lakhs)	No. of Children Availing MDM (perday) (in lakhs)	Coverage (%)	Total Enrolment (in lakhs)	No. of Children Availing MDM (perday) (in lakhs)	Coverage (%)	Total Enrolment (in lakhs)	No. of Children Availing MDM (perday) (in lakhs)	Coverage (%)
Patna	5.27	3.40	64.46	5.25	3.93	74.86	5.28	4.16	78.80
Nalanda	3.43	2.28	66.34	3.49	2.15	61.60	3.55	2.32	65.44
Bhojpur	3.17	2.21	69.77	3.21	2.21	68.85	3.34	2.21	66.25
Buxar	2.47	1.63	66.05	2.45	1.55	63.27	2.39	1.63	68.12
Rohtas	3.72	2.52	67.94	3.73	2.45	65.68	3.67	2.55	69.37
Kaimur	2.27	1.55	68.12	2.32	1.47	63.36	2.31	1.59	68.68
Gaya	5.80	3.74	64.56	5.92	3.64	61.49	5.94	3.89	65.49
Jehanabad	1.60	1.06	66.11	1.52	1.00	65.79	1.51	1.00	65.93
Arwal	0.97	0.65	67.44	1.01	0.64	63.37	0.99	0.65	65.66
Nawada	3.04	2.13	70.10	3.24	2.05	63.27	3.34	2.13	63.96
Aurangabad	3.73	2.48	66.33	3.72	2.41	64.78	3.65	2.34	64.17
Saran	5.22	3.56	68.17	5.31	3.76	70.81	5.37	3.89	72.41
Siwan	3.91	2.71	69.20	3.96	3.14	79.29	3.93	2.83	72.07
Gopalganj	3.23	2.32	71.80	3.31	2.24	67.67	3.45	2.46	71.31
W. Champaran	5.37	4.24	79.07	7.23	4.91	67.91	6.04	4.63	76.74
E. Champaran	7.26	4.86	66.92	5.78	4.39	75.95	7.80	5.38	68.98
Muzaffarpur	6.15	4.10	66.72	6.13	4.03	65.74	6.39	4.35	68.02
Sitamarhi	5.04	3.38	67.03	4.90	3.62	73.88	5.44	4.02	74.00
Sheohar	1.04	0.65	62.17	0.96	0.67	69.79	0.99	0.76	76.33
Vaishali	4.07	2.45	60.29	4.21	2.45	58.19	4.21	2.47	58.51
Darbhanga	5.11	3.33	65.19	5.00	3.51	70.20	5.15	3.74	72.77
Madhubani	6.39	4.01	62.81	6.25	4.36	69.76	6.47	4.78	73.90
Samastipur	5.86	4.15	70.77	5.86	3.97	67.75	5.68	3.92	69.06
Begusarai	4.09	2.90	70.94	5.01	2.75	54.89	4.07	3.02	74.11
Munger	1.70	1.10	64.94	1.72	1.03	59.88	1.77	1.14	64.55
Sheikhpura	0.86	0.61	70.98	0.91	0.61	67.03	0.97	0.67	69.12
Lakhisarai	1.37	0.98	71.53	1.41	0.97	68.79	1.50	1.10	73.60
Jamui	2.48	1.95	78.40	2.93	1.86	63.48	2.99	2.06	69.11
Khagaria	2.50	1.55	61.92	2.54	1.72	67.72	2.59	1.88	72.55
Bhagalpur	3.99	2.72	68.17	3.97	2.68	67.51	3.99	2.88	72.29
Banka	2.67	1.85	69.29	2.69	1.73	64.31	2.76	1.86	67.55
Saharsa	3.65	1.95	53.42	3.13	1.90	60.70	3.21	2.05	63.84
Supaul	3.21	2.11	65.73	3.21	2.00	62.31	3.25	2.15	66.08
Madhepura	3.39	2.15	63.42	4.73	2.89	61.10	3.40	2.14	63.06
Purnea	5.07	3.08	60.75	4.91	2.69	54.79	5.19	3.19	61.39
Kishanganj	2.89	1.80	62.28	2.97	1.79	60.27	2.97	1.82	61.46
Araria	3.94	2.49	63.20	4.13	2.40	58.11	4.38	2.72	61.96
Katihar	4.75	2.62	55.16	4.16	2.78	66.83	4.77	2.89	60.67
<b>Bihar</b>	<b>140.68</b>	<b>93.27</b>	<b>66.30</b>	<b>143.18</b>	<b>94.35</b>	<b>65.90</b>	<b>144.70</b>	<b>99.27</b>	<b>68.60</b>

Source : Directorate of Mid Day Meal Scheme, GOB

**Table A 10.16 : District-wise Coverage of MDMS (Class VI-VIII)**

District	2013-14			2014-15			2015-16		
	Total Enrolment (lakhs)	No. of Children Availing MDM (perday) (lakhs)	Coverage (%)	Total Enrolment (lakhs)	No. of Children Availing MDM (perday) (lakhs)	Coverage (%)	Total Enrolment (lakhs)	No. of Children Availing MDM (perday) (lakhs)	Coverage (%)
Patna	2.17	1.42	65.71	2.30	1.47	63.91	2.38	1.79	75.21
Nalanda	1.32	0.89	67.63	1.36	0.96	70.59	1.56	1.06	67.95
Bhojpur	1.39	0.91	65.46	1.44	0.92	63.89	1.62	0.99	61.11
Buxar	1.10	0.71	64.73	1.18	0.72	61.02	1.24	0.76	61.29
Rohtas	1.83	1.13	61.72	1.83	1.18	64.48	1.96	1.21	61.73
Kaimur	1.00	0.64	64.30	1.08	0.68	62.96	1.18	0.74	62.71
Gaya	2.26	1.29	56.98	2.29	1.35	58.95	2.46	1.46	59.35
Jehanabad	0.64	0.44	69.26	0.69	0.46	66.67	0.72	0.46	63.89
Arwal	0.48	0.27	56.20	0.49	0.28	57.14	0.54	0.29	53.70
Nawada	1.05	0.69	65.52	1.16	0.72	62.07	1.35	0.79	58.52
Aurangabad	1.47	1.04	70.93	1.64	0.89	54.27	1.72	1.15	66.86
Saran	2.34	1.53	65.61	2.47	1.67	67.61	2.56	1.76	68.75
Siwan	1.86	1.22	65.51	1.89	1.25	66.14	2.00	1.42	71.00
Gopalganj	1.47	1.00	68.27	1.53	1.05	68.63	1.66	1.12	67.47
W. Champaran	1.64	1.27	77.62	2.69	1.71	63.57	2.04	1.42	69.61
E.Champaran	2.52	1.84	73.10	1.79	1.40	78.21	3.17	2.09	65.93
Muzaffarpur	2.39	1.63	68.20	2.71	1.80	66.42	3.08	1.90	61.69
Sitamarhi	1.67	1.12	66.76	1.72	1.30	75.58	1.97	1.46	74.11
Sheohar	0.28	0.22	78.81	0.33	0.25	75.76	0.32	0.27	84.38
Vaishali	1.98	1.23	62.22	2.07	1.12	54.11	2.08	1.16	55.77
Darbhangha	1.88	1.23	65.16	2.08	1.29	62.02	2.03	1.32	65.02
Madhubani	2.64	1.84	69.63	2.79	1.89	67.74	2.94	2.02	68.71
Samastipur	2.35	1.66	70.59	2.58	1.70	65.89	2.79	1.69	60.57
Begusarai	1.73	1.17	67.59	1.80	1.25	69.44	1.93	1.30	67.36
Munger	0.76	0.49	64.14	0.80	0.48	60.00	0.88	0.52	59.09
Sheikhpura	0.35	0.23	65.49	0.37	0.25	67.57	0.42	0.25	59.52
Lakhisarai	0.54	0.39	72.99	0.61	0.39	63.93	0.66	0.41	62.12
Jamui	0.97	0.67	68.71	1.06	0.65	61.32	1.08	0.74	68.52
Khagaria	0.94	0.50	53.15	1.05	0.68	64.76	1.09	0.73	66.97
Bhagalpur	1.57	1.17	74.90	1.73	1.17	67.63	1.76	1.29	73.30
Banka	1.11	0.73	65.41	1.12	0.68	60.71	1.22	0.77	63.11
Saharsa	0.87	0.60	68.55	1.09	0.63	57.80	1.23	0.67	54.47
Supaul	1.31	0.79	60.11	1.38	0.78	56.52	1.42	0.79	55.63
Madhepura	1.24	0.81	65.13	3.50	0.85	24.29	1.45	0.90	62.07
Purnea	1.59	0.95	59.68	1.72	0.85	49.42	1.77	0.98	55.37
Kishanganj	0.89	0.54	61.25	0.97	0.54	55.67	0.97	0.57	58.76
Araria	1.36	0.70	51.66	1.34	0.69	51.49	1.42	0.75	52.82
Katihar	1.33	1.15	86.51	1.93	1.01	52.33	1.99	1.02	51.26
<b>Bihar</b>	<b>54.27</b>	<b>36.11</b>	<b>66.54</b>	<b>60.58</b>	<b>36.96</b>	<b>61.01</b>	<b>62.66</b>	<b>40.02</b>	<b>63.87</b>

Source: Directorate of Mid Day Meal Scheme, GOB

**Table A 10.17 : District-wise Number of Colleges of Bihar**

Districts	Affiliated College	Constiuent College	Affiliated College	Constiuent College	Affiliated College	Constiuent College
	2013-14		2014-15		2015-16	
Patna	49	39	72	39	84	37
Nalanda	20	6	23	6	25	6
Bhojpur	20	6	21	6	21	6
Buxar	11	5	11	5	12	5
Rohtas	29	8	29	8	29	8
Kaimur	8	2	8	2	13	2
Gaya	23	7	25	7	28	7
Jehanabad	7	3	7	3	7	3
Arwal	3	1	3	1	3	1
Nawada	5	4	5	4	6	4
Aurangabad	9	5	9	5	13	5
Saran	20	12	6	12	9	12
Siwan	7	7	6	7	7	7
Gopalganj	4	5	1	5	3	5
W.Champaran	7	4	8	4	8	3
E. Champaran	2	7	2	7	2	8
Muzaffarpur	12	19	13	19	13	19
Sitamarhi	3	6	5	6	5	6
Sheohar	0	0	0	0	0	0
Vaishali	9	7	12	7	12	7
Darbhanga	26	22	27	22	28	22
Madhubani	19	18	19	18	20	18
Samastipur	15	15	15	15	18	15
Begusarai	4	6	6	6	7	6
Munger	2	7	2	7	2	7
Sheikhpura	2	2	3	2	3	2
Lakhisarai	3	2	3	2	3	2
Jamui	2	2	3	2	4	2
Khagaria	0	5	1	5	1	5
Bhagalpur	13	13	13	13	13	13
Banka	7	2	9	2	11	2
Saharsa	6	9	5	9	7	9
Supaul	4	3	4	3	5	3
Madhepura	8	5	8	5	10	5
Purnea	10	6	10	6	12	6
Kishanganj	4	2	5	2	6	2
Araria	7	2	8	2	8	2
Katihar	7	4	9	4	10	4
<b>Bihar</b>	<b>387</b>	<b>278</b>	<b>416</b>	<b>278</b>	<b>468</b>	<b>276</b>

Source : Department of Education, GOB

**Table 10.18 : Districtwise Number of Colleges in Bihar up to 2015-16**

Districts	Arts, Fine Arts, Social Work, Science & Commerce	Engineering	Medical	Others	All Colleges
Patna	65	4	4	48	121
Nalanda	24	2	1	4	31
Bhojpur	18	0	0	9	27
Buxar	11	0	0	6	17
Rohtas	33	0	1	3	37
Kaimur	9	0	0	6	15
Gaya	26	2	1	6	35
Jehanabad	9	0	0	1	10
Arwal	4	0	0	0	4
Nawada	9	0	0	1	10
Aurangabad	14	1	0	3	18
Saran	16	1	0	4	21
Siwan	11	1	0	2	14
Gopalganj	5	0	0	3	8
W.Champaran	7	0	1	3	11
E. Champaran	8	1	0	1	10
Muzaffarpur	21	1	1	9	32
Sitamarhi	9	0	0	2	11
Sheohar	0	0	0	0	0
Vaishali	12	1	0	6	19
Darbhanga	25	2	4	19	50
Madhubani	21	0	0	17	38
Samastipur	21	0	0	12	33
Begusarai	7	0	0	6	13
Munger	8	0	0	1	9
Sheikhpura	5	0	0	0	5
Lakhisarai	5	0	0	0	5
Jamui	5	0	0	1	6
Khagaria	4	0	0	2	6
Bhagalpur	18	1	1	6	26
Banka	7	1	0	5	13
Saharsa	9	0	1	6	16
Supaul	7	0	0	1	8
Madhepura	12	0	0	3	15
Purnea	11	2	0	5	18
Kishanganj	5	2	1	0	8
Araria	8	1	0	1	10
Katihar	10	0	1	3	14
<b>Bihar</b>	<b>499</b>	<b>23</b>	<b>17</b>	<b>205</b>	<b>744</b>

Source : Department of Education, GOB

**Table A 10.19 : District Level Overview of SC/ST Welfare**

Disriets	Maintenance of Residential School (SC)						Hostel Maintenance (SC)		
	Amount Alloted (Rs. lakh)			Physical Achievement (No.)			Amount Alloted (Rs. lakh)		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Patna	413.97	448.41	455.21	978	621	616	50.26	214.65	142.57
Nalanda	222.93	316.61	348.31	639	747	788	12.34	13.73	16.22
Bhojpur	265.01	388.65	401.45	750	714	777	10.99	25.69	35.46
Buxar	154.22	173.83	248.63	336	324	356	35.09	11.14	18.73
Rohtas	238.15	339.04	326.11	680	738	781	30.41	29.48	33.88
Kaimur	220.86	314.04	374.61	484	538	534	77.97	66.78	30.50
Gaya	896.00	1426.56	1334.55	3202	2954	3207	27.40	15.05	26.91
Jehanabad	80.61	161.47	170.01	421	425	449	33.11	10.77	10.72
Arwal	57.70	129.22	114.92	152	339	366	3.97	NA	NA
Nawada	249.96	363.18	449.97	872	957	985	13.62	17.66	22.13
Aurangabad	45.65	134.23	91.00	262	235	292	9.00	6.12	7.26
Saran	126.56	134.22	183.01	369	385	390	NA	12.93	18.93
Siwan	49.52	133.71	114.42	170	206	228	29.59	28.39	30.56
Gopalganj	120.71	182.33	219.11	358	359	339	8.04	15.95	19.53
W. Champaran	165.49	264.41	274.36	561	592	592	29.03	18.76	22.02
E. Champaran	101.21	136.23	124.66	311	291	313	25.12	29.61	34.86
Muzaffarpur	308.17	473.40	474.41	1009	1057	1062	11.91	33.63	37.41
Sitamarhi	82.75	174.38	166.72	351	390	400	17.12	27.54	30.45
Sheohar	44.07	50.46	75.61	NA	NA	76	19.53	1.31	6.59
Vaishali	127.86	193.19	252.69	301	311	375	1.53	15.05	13.21
Darbhanga	90.07	137.57	100.34	107	118	118	28.14	37.61	41.56
Madhubani	329.38	426.82	482.94	871	891	1020	27.87	20.97	13.51
Samastipur	150.26	297.10	288.31	542	615	684	11.71	10.77	17.91
Begusarai	131.35	134.82	196.33	297	310	337	1.28	3.29	2.23
Munger	121.85	132.96	119.58	298	289	319	10.76	14.59	14.74
Sheikhpura	52.50	129.22	89.42	197	191	237	12.92	1.31	1.60
Lakhisarai	53.99	146.48	119.42	122	203	210	25.85	3.71	6.90
Jamui	52.88	138.43	84.42	216	229	254	14.09	1.31	1.60
Khagaria	117.25	150.49	160.47	369	381	369	4.50	15.75	15.15
Bhagalpur	153.83	228.22	217.69	414	351	355	10.05	58.13	45.54
Banka	48.20	144.86	82.34	187	212	226	4.19	9.91	17.83
Saharsa	106.32	212.18	191.40	282	380	378	34.14	50.56	37.76
Supaul	44.82	129.22	86.50	133	127	138	18.02	8.31	13.87
Madhepura	52.50	136.18	160.36	58	179	236	15.57	16.28	23.43
Purnea	141.95	146.32	176.88	376	391	395	13.22	36.18	40.84
Kishanganj	117.95	194.34	196.58	274	347	347	13.05	7.79	5.22
Araria	121.86	142.17	183.11	285	274	311	4.28	12.44	18.37
Katihar	102.36	144.29	132.58	394	390	378	23.92	20.97	25.23
<b>Bihar</b>	<b>5960.72</b>	<b>9109.24</b>	<b>9268.43</b>	<b>17628</b>	<b>18061</b>	<b>19238</b>	<b>719.57</b>	<b>924.11</b>	<b>901.23</b>

Source: Department of SC/ST Welfare, GOB

(Contd...)

**Table A 10.19 : District Level Overview of SC/ST Welfare (Contd.)**

Districts	Stipend (SC & ST)									
	Financial Allotment (Rs. in Lakh)					Physical Achievement (No.)				
	2011-12	2012-13	2013-14	2014-15	2015-16	2011-12	2012-13	2013-14	2014-15	2015-16
Patna	5038.9	3966.3	4532.7	4040.2	6288.5	204680	164495	148862	182127	353576
Nalanda	2386.7	2552.9	2389.3	1393.5	3867.6	164020	110810	116774	96390	163964
Bhojpur	1075.8	1103.7	1641.3	1400.8	2329.2	98113	84691	99951	115836	138385
Buxar	1088.4	1379.1	1627.1	1532.3	3517.5	93772	47981	64099	69067	105151
Rohtas	2132.0	1763.4	2178.8	1595.2	2789.3	167670	87908	107420	105921	176605
Kaimur	1712.1	1731.8	1887.9	1481.0	3458.6	122086	83292	101664	137744	134154
Gaya	4244.0	4493.2	5322.8	5285.0	7383.6	210299	229581	272195	297678	295326
Jehanabad	763.9	776.4	1083.7	902.6	1242.6	50559	47005	47356	49412	86580
Arwal	385.1	397.4	407.2	385.2	676.9	36261	24231	31648	32749	44447
Nawada	1538.7	1476.1	2339.3	1899.8	3088.8	160136	97822	147041	171533	182023
Aurangabad	1829.2	1655.3	3710.3	2866.0	4119.4	120352	106322	278442	188192	273435
Saran	2527.8	2175.7	2467.7	2412.2	3135.0	190935	83333	149887	150120	168830
Siwan	1706.6	1560.6	1889.7	1496.4	2847.0	103668	62669	82920	98517	129917
Gopalganj	1008.1	1324.7	1606.8	1332.9	2318.7	73801	70033	140309	83277	139864
W. Champaran	2448.5	3003.3	2258.6	2337.4	4148.5	259830	162035	190880	194422	304344
E. Champaran	1883.2	1790.1	1391.4	1541.7	3707.7	132933	100393	99675	126757	199603
Muzaffarpur	2015.5	3131.2	2579.1	2328.8	3236.5	144025	108638	146146	162902	230748
Sitamarhi	869.9	1078.3	1313.9	913.8	1762.8	80839	61195	101304	88994	91102
Sheohar	259.4	318.4	223.7	221.8	483.3	22170	18489	22308	21227	33122
Vaishali	1898.7	1885.8	1734.0	1663.5	3128.8	204993	106253	127227	127987	214537
Darbhanga	1656.7	2008.4	1816.4	1692.1	2861.2	93556	89372	128519	147413	277436
Madhubani	1806.3	1945.4	1714.1	1639.4	3630.8	132126	144181	138976	137860	347007
Samastipur	1981.9	2230.0	1844.2	1299.3	3394.4	130677	114556	137162	94595	267658
Begusarai	947.8	982.5	1232.7	911.1	2395.9	72879	64095	89955	77833	165596
Munger	754.1	855.4	1023.4	819.4	1123.5	63536	38912	44717	47654	57014
Sheikhpura	347.5	444.5	508.8	430.5	701.2	20581	19159	24901	29088	41367
Lakhisarai	430.9	548.3	589.8	491.2	1008.6	34232	30968	42094	42650	62846
Jamui	957.1	1266.8	896.7	933.2	1825.7	71914	89772	76960	71177	165156
Khagaria	673.9	741.6	608.5	584.9	1093.2	52102	25441	38889	56261	50954
Bhagalpur	1186.3	1727.1	1781.8	2048.2	3923.2	110704	75255	86185	123368	121023
Banka	996.9	766.0	969.9	1095.7	2661.8	64045	47807	63146	59010	89092
Saharsa	844.1	810.3	664.6	599.1	1615.9	62848	67083	62826	56603	119198
Supaul	689.9	945.9	989.7	882.2	1851.8	60724	56402	69038	66211	103858
Madhepura	1169.5	974.4	1009.1	692.1	1255.8	78580	68924	65158	41371	68625
Purnea	1401.4	1632.8	1355.0	1490.5	2851.8	58647	77247	93659	95158	273160
Kishanganj	353.8	383.3	388.9	663.5	769.1	34236	28644	25069	34716	74719
Araria	665.2	606.9	617.9	478.4	1586.5	52462	37237	55376	44011	90281
Katihar	1109.8	1116.0	945.5	905.0	1667.4	87425	35688	72874	61559	194101
<b>Bihar</b>	<b>54785.2</b>	<b>57549.3</b>	<b>61645.3</b>	<b>61557.7</b>	<b>99748.0</b>	<b>3922416</b>	<b>2967919</b>	<b>3791754</b>	<b>3804539</b>	<b>6034804</b>

Source : Department of SC/ST Welfare, GOB

(Concluded)