



N • S • D • C
National
Skill Development
Corporation



District wise skill gap study for the State of **Jharkhand** (2012-17, 2017-22)



Disclaimer

1. NSDC engaged Deloitte (Deloitte Touche Tohmatsu India Private Limited) to prepare this report, which is based on independent research and analysis done by Deloitte. This report is not based or derived from any other report or research paper. Any similarity with any other paper may purely be a co-incidence.
2. All rights reserved. All copyright in this report and related works is solely and exclusively owned by NSDC. The same may not be reproduced, wholly or in part in any material form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this presentation), modified or in any manner communicated to any third party except with the written approval of NSDC.
3. For purposes of the exercise, Deloitte Touche Tohmatsu India Pvt Ltd has used information obtained from various enquiries, primary interactions and secondary information sources, which we believe to be reliable and our assessment is dependent on such information being complete and accurate in all material respects. We do not accept any responsibility or liability for any losses occasioned to any party as a result of our reliance on such information.
4. Deloitte Touche Tohmatsu India Private Limited makes no representation or warranty as to the accuracy or completeness of the information used within this assessment, including any estimates, and shall have no liability for any representations (expressed or implied) contained in, or for any omission from, this assessment.
5. This report is for information purposes only. While due care has been taken during the compilation of this report to ensure that the information is accurate to the best of Deloitte's and NSDC's knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice. Deloitte and NSDC neither recommend nor endorse any specific products or services that may have been mentioned in this report and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed in this report.
6. Neither Deloitte nor NSDC shall be liable for any direct or indirect damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this report.

Acknowledgements

We are grateful to the Government of Jharkhand and its various departments for their contribution towards the successful completion of the study.

We acknowledge with gratitude the support provided by the skill Training Institutions, NGOs, Industry Representatives and the youth of the state for their contribution towards the study

We would like to thank all industry partners, training partners for their active participation. The success of the study has been possible through their collaborative efforts.

Table of Contents

Contents

Disclaimer.....	2
Acknowledgements	3
Table of Contents	4
List of Figures & Tables	6
1. Background and Scope of Work.....	15
2. Brief Approach & Methodology	16
3. Jharkhand – State Profile	20
3.1 Demography.....	20
3.2 Economic Profile	21
3.3 Promotional Initiatives – Thrust Sectors	37
3.4 Education & Skill Development.....	39
3.5 Estimation of Skill Gap	47
3.6 Aspirations of Youth in Jharkhand	56
3.7 Challenges in Skill Development in the State	61
3.8 Recommendations for Skill Development in the State.....	63
4. District Level Skill Gap Assessment	70
4.1 Bokaro	70
4.2 Giridih	82
4.3 Deoghar.....	94
4.4 Godda.....	106
4.5 Pakur	117
4.6 Sahebganj	128
4.7 Garhwa	139
4.8 Koderma.....	150
4.9 Lohardaga	161
4.10 East Singhbhum	172
4.11 Dhanbad	183
4.12 Chatra.....	195
4.13 Palamu & Latehar	206
4.14 Hazaribagh & Ramgarh.....	221
4.15 Dumka and Jamtara.....	236
4.16 Gumla and Simdega	251
4.17 West Singhbhum & Seraikela Kharsawan	266
4.18 Ranchi & Khunti	281
5. Appendices	296

5.1	List of Key Government Officials Met.....	296
5.2	List of Key Industry and Industry Association Representatives Met	297
5.3	List of Key Education and Skill Institutes Met	299
5.4	List of Districts in which FGDs were conducted.....	301
5.5	Estimation of Incremental Manpower Demand for Bokaro	302
5.6	Estimation of Incremental Manpower Supply for Bokaro	308
5.7	List of Key Secondary Sources	310
5.8	Sector Level Skill Definition.....	311
5.9	Estimation of Manpower Demand in Unorganized Sectors	312
5.10	Mapping of Industries to Primary, Secondary and Tertiary Sectors	313
5.11	Distribution of workers across skill level in various sectors	314

List of Figures & Tables

Figure No.	Details
2.1	Methodology
2.2	Incremental Demand Supply Gap
3.1	Profile of Population Density of Jharkhand
3.2	GSDP of Jharkhand at constant prices (2004-05)
3.3	Sector level contribution to the GSDP
3.4	GDDP (2008-09) at constant prices (1999-2000)
3.5	Contribution to Primary Sector
3.6	Contribution to Secondary Sector
3.7	Focal MSME sectors in Jharkhand
3.8	Major MSME clusters in Jharkhand
3.9	Composition of tertiary sector
3.10	Growth of banking and insurance sector
3.11	Growth of transportation and logistics sector
3.12	Literacy rate in Jharkhand
3.13	Percentage of rural children (6-14 years) out of school
3.14	Indicator of quality of education imparted to rural children
3.15	Enrolment details in Jharkhand
3.16	Spread of engineering colleges in Jharkhand
3.17	District level annual intake capacity for vocation training per lakh of population
3.18	Private sector training providers in Jharkhand
3.19	Annual skill development targets for the 12 th Five Year Plan
3.20	Sector level employment
3.21	Projected workforce – 2022
3.22	Incremental manpower gap – 2012-22
3.23	Incremental manpower gap – 2012-17
3.24	Skill development attractiveness matrix
3.25	High priority sectors
4.1	Sector level contribution to GDDP of Bokaro
4.2	Composition of primary sector
4.3	Composition of secondary sector
4.4	Investment in MSME sector
4.5	Composition of tertiary sector
4.6	Literacy by residence in Bokaro
4.7	Literacy by gender in Bokaro
4.8	Sector level employment in Bokaro
4.9	Incremental manpower gap in Bokaro
4.10	Sector level contribution to GDDP of Giridih
4.11	Composition of primary sector of Giridih
4.12	Composition of secondary sector of Giridih
4.13	Investments in MSME sector of Giridih
4.14	Composition of tertiary sector of Giridih
4.15	Literacy by residence in Giridih
4.16	Literacy by gender in Giridih
4.17	Sector level employment in Giridih
4.18	Incremental manpower gap in Giridih
4.19	Sector level contribution to GDDP of Deoghar
4.20	Composition of primary sector of Deoghar
4.21	Composition of secondary sector of Deoghar
4.22	Investments in MSME sector of Deoghar

Figure No.	Details
4.23	Composition of tertiary sector of Deoghar
4.24	Literacy by gender in Deoghar
4.25	Literacy by residence in Deoghar
4.26	Sector level employment in Deoghar
4.27	Incremental manpower gap in Deoghar
4.28	Sector level contribution to GDDP of Godda
4.29	Composition of primary sector of Godda
4.30	Composition of secondary sector of Godda
4.31	Investments in MSME sector of Godda
4.32	Composition of tertiary sector of Godda
4.33	Literacy by residence in Godda
4.34	Literacy by gender in Godda
4.35	Sector level employment in Godda
4.36	Incremental manpower gap in Godda
4.37	Sector level contribution to GDDP of Pakur
4.38	Composition of primary sector of Pakur
4.39	Composition of secondary sector of Pakur
4.40	Investments in MSME sector of Pakur
4.41	Composition of tertiary sector of Pakur
4.42	Literacy by residence in Pakur
4.43	Literacy by gender in Pakur
4.44	Sector level employment in Pakur
4.45	Incremental manpower gap in Pakur
4.46	Sector level contribution to GDDP of Sahebganj
4.47	Composition of primary sector of Sahebganj
4.48	Composition of secondary sector of Sahebganj
4.49	Investments in MSME sector of Sahebganj
4.50	Composition of tertiary sector of Sahebganj
4.51	Literacy by residence in Sahebganj
4.52	Literacy by gender in Sahebganj
4.53	Sector level employment in Sahebganj
4.54	Incremental manpower gap in Sahebganj
4.55	Sector level contribution to GDDP of Garhwa
4.56	Composition of primary sector of Garhwa
4.57	Composition of secondary sector of Garhwa
4.58	Investments in MSME sector of Garhwa
4.59	Composition of tertiary sector of Garhwa
4.60	Literacy by residence in Garhwa
4.61	Literacy by gender in Garhwa
4.62	Sector level employment in Garhwa
4.63	Incremental manpower gap in Garhwa
4.64	Sector level contribution to GDDP of Koderma
4.65	Composition of primary sector of Koderma
4.66	Composition of secondary sector of Koderma
4.67	Composition of tertiary sector of Koderma
4.68	Literacy by residence in Koderma
4.69	Literacy by gender in Koderma
4.70	Sector level employment in Koderma
4.71	Incremental manpower gap in Koderma
4.72	Sector level contribution to GDDP of Lohardaga
4.73	Composition of primary sector of Lohardaga
4.74	Composition of secondary sector of Lohardaga

Figure No.	Details
4.75	Investments in MSME sector in Lohardaga
4.76	Composition of tertiary sector of Lohardaga
4.77	Literacy by residence in Lohardaga
4.78	Literacy by gender in Lohardaga
4.79	Sector level employment in Lohardaga
4.80	Incremental manpower gap in Lohardaga
4.81	Sector level contribution to GDDP of East Singhbhum
4.82	Composition of primary sector of East Singhbhum
4.83	Composition of secondary sector of East Singhbhum
4.84	Investments in MSME sector in East Singhbhum
4.85	Composition of tertiary sector of East Singhbhum
4.86	Literacy by residence in East Singhbhum
4.87	Literacy by gender in East Singhbhum
4.88	Sector level employment in East Singhbhum
4.89	Incremental manpower gap in East Singhbhum
4.90	Sector level contribution to GDDP of Dhanbad
4.91	Composition of primary sector of Dhanbad
4.92	Composition of secondary sector of Dhanbad
4.93	Investments in MSME sector in Dhanbad
4.94	Composition of tertiary sector of Dhanbad
4.95	Literacy by residence in Dhanbad
4.96	Literacy by gender in Dhanbad
4.97	Sector level employment in Dhanbad
4.98	Incremental manpower gap in Dhanbad
4.99	Sector level contribution to GDDP of Chatra
4.100	Composition of primary sector of Chatra
4.101	Composition of secondary sector of Chatra
4.102	Investments in MSME sector in Chatra
4.103	Composition of tertiary sector of Chatra
4.104	Literacy by residence in Chatra
4.105	Literacy by gender in Chatra
4.106	Sector level employment in Chatra
4.107	Incremental manpower gap in Chatra
4.108	Sector level contribution to GDDP of Palamu & Latehar
4.109	Composition of primary sector of Palamu & Latehar
4.110	Composition of secondary sector of Palamu & Latehar
4.111	Investments in MSME sector in Palamu & Latehar
4.112	Composition of tertiary sector of Palamu & Latehar
4.113	Literacy by residence in Palamu
4.114	Literacy by gender in Palamu
4.115	Literacy by residence in Latehar
4.116	Literacy by gender in Latehar
4.117	Sector level employment in Palamu & Chatra
4.118	Incremental manpower gap in Palamu
4.119	Incremental manpower gap in Latehar
4.120	Sector level contribution to GDDP of Hazaribagh & Ramgarh
4.121	Composition of primary sector of Hazaribagh & Ramgarh
4.122	Composition of secondary sector of Hazaribagh & Ramgarh
4.123	Investments in MSME sector in Hazaribagh & Ramgarh
4.124	Composition of tertiary sector of Hazaribagh & Ramgarh
4.125	Literacy by residence in Hazaribagh
4.126	Literacy by gender in Hazaribagh

Figure No.	Details
4.127	Literacy by residence in Ramgarh
4.128	Literacy by gender in Ramgarh
4.129	Sector level employment in Hazaribagh & Ramgarh
4.130	Incremental manpower gap in Hazaribagh
4.131	Incremental manpower gap in Ramgarh
4.132	Sector level contribution to GDDP of Dumka and Jamtara
4.133	Composition of primary sector of Dumka and Jamtara
4.134	Composition of secondary sector of Dumka and Jamtara
4.135	Investments in MSME sector in Dumka and Jamtara
4.136	Composition of tertiary sector of Dumka and Jamtara
4.137	Literacy by residence in Dumka
4.138	Literacy by gender in Dumka
4.139	Literacy by residence in Jamtara
4.140	Literacy by gender in Jamtara
4.141	Sector level employment in Dumka and Jamtara
4.142	Incremental manpower gap in Dumka
4.143	Incremental manpower gap in Jamtara
4.144	Sector level contribution to GDDP of Gumla & Simdega
4.145	Composition of primary sector of Gumla & Simdega
4.146	Composition of secondary sector of Gumla & Simdega
4.147	Investments in MSME sector in Gumla & Simdega
4.148	Composition of tertiary sector of Gumla & Simdega
4.149	Literacy by residence in Gumla
4.150	Literacy by gender in Gumla
4.151	Literacy by gender in Simdega
4.152	Literacy by residence in Simdega
4.153	Sector level employment in Gumla & Simdega
4.154	Incremental manpower gap in Gumla
4.155	Incremental manpower gap in Simdega
4.156	Sector level contribution to GDDP of West Singhbhum & Saraikela
4.157	Composition of primary sector of West Singhbhum & Saraikela
4.158	Composition of secondary sector of West Singhbhum & Saraikela
4.159	Investments in MSME sector in West Singhbhum & Saraikela
4.160	Composition of tertiary sector of West Singhbhum & Saraikela
4.161	Literacy by residence in West Singhbhum
4.162	Literacy by gender in West Singhbhum
4.163	Literacy by residence in Saraikela
4.164	Literacy by gender in Saraikela
4.165	Sector level employment in West Singhbhum & Saraikela
4.166	Incremental manpower gap in West Singhbhum
4.167	Incremental manpower gap in Saraikela
4.168	Sector level contribution to GDDP of Ranchi & Khunti
4.169	Composition of primary sector of Ranchi & Khunti
4.170	Composition of secondary sector of Ranchi & Khunti
4.171	Investments in MSME sector in Ranchi & Khunti
4.172	Composition of tertiary sector of Ranchi & Khunti
4.173	Literacy by residence in Ranchi
4.174	Literacy by gender in Ranchi
4.175	Literacy by residence in Khunti
4.176	Literacy by gender in Khunti
4.177	Sector level employment in Ranchi & Khunti
4.178	Incremental manpower gap in Ranchi

Figure No.	Details
4.179	Incremental manpower gap in Khunti

Table No.	Details
3.1	Demographic profile of Jharkhand
3.2	Top 5 districts with highest percentage of ST population
3.3	District level population in 2011
3.4	District level key sector
3.5	Major horticulture clusters in Jharkhand
3.6	Major Livestock clusters in Jharkhand
3.7	Major mineral clusters in Jharkhand
3.8	Key districts with high primary output
3.9	Major industrial clusters in Jharkhand
3.10	Major MSME clusters in Jharkhand
3.11	Potential food processing products
3.12	Major handicraft clusters in Jharkhand
3.13	Key districts with high secondary output
3.14	Major tourism clusters of Jharkhand
3.15	Key districts with high tertiary output
3.16	Sector level promotional initiatives
3.17	Literacy profile of Jharkhand
3.18	Primary and upper primary enrolments
3.19	Higher & technical education infrastructure in Jharkhand
3.20	Vocational training infrastructure in Jharkhand
3.21	District level private sector training providers
3.22	Government sponsored skill development schemes
3.23	Employment profile
3.24	Estimated workforce
3.25	Estimated workforce as per skill levels
3.26	Educational infrastructure in the state
3.27	Incremental manpower demand in Jharkhand in organized sectors
3.28	Incremental manpower demand in Jharkhand in unorganized sectors
3.29	Qualitative skill gaps in high incremental demand sectors
3.30	District level priority sectors
3.31	Migration in Jharkhand
3.32	Sector level youth aspirations in Jharkhand
3.33	Focal education and skill development departments
3.34	Focal government department for high demand sectors
3.35	Indicative annual progress report
3.36	Suggested partner institutions for capacity building of faculty
3.37	Focus sectors, districts and skills
4.1	Demography of Bokaro
4.2	Focus sectors and growth opportunities in Bokaro
4.3	Educational infrastructure in Bokaro
4.4	Employment profile in Bokaro
4.5	Estimated workforce of Bokaro
4.6	Estimated workforce as per skill levels
4.7	Incremental manpower demand in Bokaro in organized sectors
4.8	Incremental manpower demand in Bokaro in unorganized sectors
4.9	Qualitative skill gaps in high demand sectors in Bokaro
4.10	Recommendations and action points for Bokaro
4.11	Demography of Giridih

Table No.	Details
4.12	Focus sectors and growth opportunities in Giridih
4.13	Educational infrastructure in Giridih
4.14	Employment profile in Giridih
4.15	Estimated workforce of Giridih
4.16	Estimated workforce as per skill levels
4.17	Incremental manpower demand in Giridih in organized sectors
4.18	Incremental manpower demand in Giridih in unorganized sectors
4.19	Qualitative skill gaps in high demand sectors in Giridih
4.20	Recommendations and action points for Giridih
4.21	Demography of Deoghar
4.22	Focus sectors and growth opportunities in Deoghar
4.23	Educational infrastructure in Deoghar
4.24	Employment profile in Deoghar
4.25	Estimated workforce of Deoghar
4.26	Estimated workforce as per skill levels
4.27	Incremental manpower demand in Deoghar in organized sectors
4.28	Incremental manpower demand in Deoghar in unorganized sectors
4.29	Qualitative skill gaps in high demand sectors in Deoghar
4.30	Recommendations and action points for Deoghar
4.31	Demography of Godda
4.32	Focus sectors and growth opportunities in Godda
4.33	Educational infrastructure in Godda
4.34	Employment profile in Godda
4.35	Estimated workforce of Godda
4.36	Estimated workforce as per skill levels
4.37	Incremental manpower demand in Godda in organized sectors
4.38	Incremental manpower demand in Godda in unorganized sectors
4.39	Qualitative skill gaps in high demand sectors in Godda
4.40	Recommendations and action points for Godda
4.41	Demography of Pakur
4.42	Focus sectors and growth opportunities in Pakur
4.43	Educational infrastructure in Pakur
4.44	Employment profile in Pakur
4.45	Estimated workforce of Pakur
4.46	Estimated workforce as per skill levels
4.47	Incremental manpower demand in Pakur in organized sectors
4.48	Incremental manpower demand in Pakur in unorganized sectors
4.49	Qualitative skill gaps in high demand sectors in Pakur
4.50	Recommendations and action points for Godda
4.51	Demography of Sahebganj
4.52	Focus sectors and growth opportunities in Sahebganj
4.53	Educational infrastructure in Sahebganj
4.54	Employment profile in Sahebganj
4.55	Estimated workforce of Sahebganj
4.56	Estimated workforce as per skill levels
4.57	Incremental manpower demand in Sahebganj in organized sectors
4.58	Incremental manpower demand in Sahebganj in unorganized sectors
4.59	Qualitative skill gaps in high demand sectors in Sahebganj
4.60	Recommendations and action points for Sahebganj
4.61	Demography of Garhwa
4.62	Focus sectors and growth opportunities in Garhwa
4.63	Educational infrastructure in Garhwa

Table No.	Details
4.64	Employment profile in Garhwa
4.65	Estimated workforce of Garhwa
4.66	Estimated workforce as per skill levels
4.67	Incremental manpower demand in Garhwa in organized sectors
4.68	Incremental manpower demand in Garhwa in unorganized sectors
4.69	Qualitative skill gaps in high demand sectors in Garhwa
4.70	Recommendations and action points for Garhwa
4.71	Demography of Koderma
4.72	Focus sectors and growth opportunities in Koderma
4.73	Educational infrastructure in Koderma
4.74	Employment profile in Koderma
4.75	Estimated workforce of Koderma
4.76	Estimated workforce as per skill levels
4.77	Incremental manpower demand in Koderma in organized sectors
4.78	Incremental manpower demand in Koderma in unorganized sectors
4.79	Qualitative skill gaps in high demand sectors in Koderma
4.80	Recommendations and action points for Koderma
4.81	Demography of Lohardaga
4.82	Focus sectors and growth opportunities in Lohardaga
4.83	Educational infrastructure in Lohardaga
4.84	Employment profile in Lohardaga
4.85	Estimated workforce of Lohardaga
4.86	Estimated workforce as per skill levels
4.87	Incremental manpower demand in Lohardaga in organized sectors
4.88	Incremental manpower demand in Lohardaga in unorganized sectors
4.89	Qualitative skill gaps in high demand sectors in Lohardaga
4.90	Recommendations and action points for Lohardaga
4.91	Demography of East Singhbhum
4.92	Focus sectors and growth opportunities in East Singhbhum
4.93	Educational infrastructure in East Singhbhum
4.94	Employment profile in East Singhbhum
4.95	Estimated workforce of East Singhbhum
4.96	Estimated workforce as per skill levels
4.97	Incremental manpower demand in East Singhbhum in organized sectors
4.98	Incremental manpower demand in East Singhbhum in unorganized sectors
4.99	Qualitative skill gaps in high demand sectors in East Singhbhum
4.100	Recommendations and action points for East Singhbhum
4.101	Demography of Dhanbad
4.102	Focus sectors and growth opportunities in Dhanbad
4.103	Educational infrastructure in Dhanbad
4.104	Employment profile in Dhanbad
4.105	Estimated workforce of Dhanbad
4.106	Estimated workforce as per skill levels
4.107	Incremental manpower demand in Dhanbad in organized sectors
4.108	Incremental manpower demand in Dhanbad in unorganized sectors
4.109	Qualitative skill gaps in high demand sectors in Dhanbad
4.110	Recommendations and action points for Dhanbad
4.111	Demography of Chatra
4.112	Focus sectors and growth opportunities in Chatra
4.113	Educational infrastructure in Chatra
4.114	Employment profile in Chatra
4.115	Estimated workforce of Chatra

Table No.	Details
4.116	Estimated workforce as per skill levels
4.117	Incremental manpower demand in Chatra in organized sectors
4.118	Incremental manpower demand in Chatra in unorganized sectors
4.119	Qualitative skill gaps in high demand sectors in Chatra
4.120	Recommendations and action points for Chatra
4.121	Demography of Palamu & Latehar
4.122	Focus sectors and growth opportunities in Palamu & Latehar
4.123	Educational infrastructure in Palamu
4.124	Educational infrastructure in Latehar
4.125	Employment profile in Palamu & Latehar
4.126	Estimated workforce of Palamu
4.127	Estimated workforce as per skill levels
4.128	Incremental manpower demand in Palamu in organized sectors
4.129	Incremental manpower demand in Palamu in unorganized sectors
4.130	Estimated workforce of Latehar
4.131	Estimated workforce as per skill levels
4.132	Incremental manpower demand in Latehar in organized sectors
4.133	Incremental manpower demand in Latehar in unorganized sectors
4.134	Qualitative skill gaps in high demand sectors in Palamu & Latehar
4.135	Recommendations and action points for Palamu & Latehar
4.136	Demography of Hazaribagh & Ramgarh
4.137	Focus sectors and growth opportunities in Hazaribagh & Ramgarh
4.138	Educational infrastructure in Hazaribagh
4.139	Educational infrastructure in Ramgarh
4.140	Employment profile in Hazaribagh & Ramgarh
4.141	Estimated workforce of Hazaribagh
4.142	Estimated workforce as per skill levels
4.143	Incremental manpower demand in Hazaribagh in organized sectors
4.144	Incremental manpower demand in Hazaribagh in unorganized sectors
4.145	Estimated workforce of Ramgarh
4.146	Estimated workforce as per skill levels
4.147	Incremental manpower demand in Ramgarh in organized sectors
4.148	Incremental manpower demand in Ramgarh in unorganized sectors
4.149	Qualitative skill gaps in high demand sectors in Hazaribagh & Ramgarh
4.150	Recommendations and action points for Hazaribagh & Ramgarh
4.151	Demography of Dumka and Jamtara
4.152	Focus sectors and growth opportunities in Dumka and Jamtara
4.153	Educational infrastructure in Dumka
4.154	Educational infrastructure in Jamtara
4.155	Employment profile in Dumka and Jamtara
4.156	Estimated workforce of Dumka
4.157	Estimated workforce as per skill levels
4.158	Incremental manpower demand in Dumka in organized sectors
4.159	Incremental manpower demand in Dumka in unorganized sectors
4.160	Estimated workforce of Jamtara
4.161	Estimated workforce as per skill levels
4.162	Incremental manpower demand in Jamtara in organized sectors
4.163	Incremental manpower demand in Jamtara in unorganized sectors
4.164	Qualitative skill gaps in high demand sectors in Dumka and Jamtara
4.165	Recommendations and action points for Dumka and Jamtara
4.166	Demography of Gumla & Simdega
4.167	Focus sectors and growth opportunities in Gumla & Simdega

Table No.	Details
4.168	Educational infrastructure in Gumla
4.169	Educational infrastructure in Simdega
4.170	Employment profile in Gumla & Simdega
4.171	Estimated workforce of Gumla
4.172	Estimated workforce as per skill levels
4.173	Incremental manpower demand in Gumla in organized sectors
4.174	Incremental manpower demand in Gumla in unorganized sectors
4.175	Estimated workforce of Simdega
4.176	Estimated workforce as per skill levels
4.177	Incremental manpower demand in Simdega in organized sectors
4.178	Incremental manpower demand in Simdega in unorganized sectors
4.179	Qualitative skill gaps in high demand sectors in Gumla & Simdega
4.180	Recommendations and action points for Gumla & Simdega
4.181	Demography of West Singhbhum & Saraikela
4.182	Focus sectors and growth opportunities in West Singhbhum & Saraikela
4.183	Educational infrastructure in West Singhbhum
4.184	Educational infrastructure in Saraikela
4.185	Employment profile in West Singhbhum & Saraikela
4.186	Estimated workforce of West Singhbhum
4.187	Estimated workforce as per skill levels
4.188	Incremental manpower demand in West Singhbhum in organized sectors
4.189	Incremental manpower demand in West Singhbhum in unorganized sectors
4.190	Estimated workforce of Saraikela
4.191	Estimated workforce as per skill levels
4.192	Incremental manpower demand in Saraikela in organized sectors
4.193	Incremental manpower demand in Saraikela in unorganized sectors
4.194	Qualitative skill gaps in high demand sectors in West Singhbhum & Saraikela
4.195	Recommendations and action points for West Singhbhum & Saraikela
4.196	Demography of Ranchi & Khunti
4.197	Focus sectors and growth opportunities in Ranchi & Khunti
4.198	Educational infrastructure in Ranchi
4.199	Employment profile in Ranchi & Khunti
4.200	Estimated workforce of Ranchi
4.201	Estimated workforce as per skill levels
4.202	Incremental manpower demand in Ranchi in organized sectors
4.203	Incremental manpower demand in Ranchi in unorganized sectors
4.204	Estimated workforce of Khunti
4.205	Estimated workforce as per skill levels
4.206	Incremental manpower demand in Khunti in organized sectors
4.207	Incremental manpower demand in Khunti in unorganized sectors
4.208	Qualitative skill gaps in high demand sectors in Ranchi & Khunti
4.209	Recommendations and action points for Ranchi & Khunti

1. Background and Scope of Work

National Skill Development Corporation (NSDC) was set up as part of a national skill development mission to fulfil the growing need of skilled manpower across sectors in India and reduce the existing gap between demand and supply of skills. NSDC acts as a catalyst for skill development by providing funding to enterprises, companies and organizations that provide skill training. In order to achieve its objective of skilling/ up-skilling 150 million people in India by 2022, NSDC has been working on the following three key mandates:

- Enable: (a) Facilitate creation of support systems required for skill development (b) Develop a research base
- Create: Proactively catalyze creation of large, quality vocational training institutes
- Fund: Reduce risk by providing patient capital and improve returns by providing viability gap funding

As part of its mandate, NSDC is developing a research base by conducting sector and geographic skill gap studies to access existing demand-supply gaps. The research base developed by NSDC is envisaged to be utilized by different stakeholders such as training organizations, employers, government and trainees. NSDC has prepared skill gap reports, based on sector skill gap studies conducted in 2008-09, for 20 high priority sectors identified by the Planning Commission. NSDC is now conducting district level skill gap studies to complement the sector skill gap studies. The district level skill gap studies highlight existing and future skill gaps across sectors in all the districts of a particular state. Through these studies NSDC envisages to identify the current and future (2012-2022) skill and manpower requirements in the ascertained priority sectors of the district, estimate the gap that exists and formulate strategies for addressing this gap.

Given this background, NSDC has mandated Deloitte to conduct a district level skill gap study for all the districts of Jharkhand with specific focus on the following:

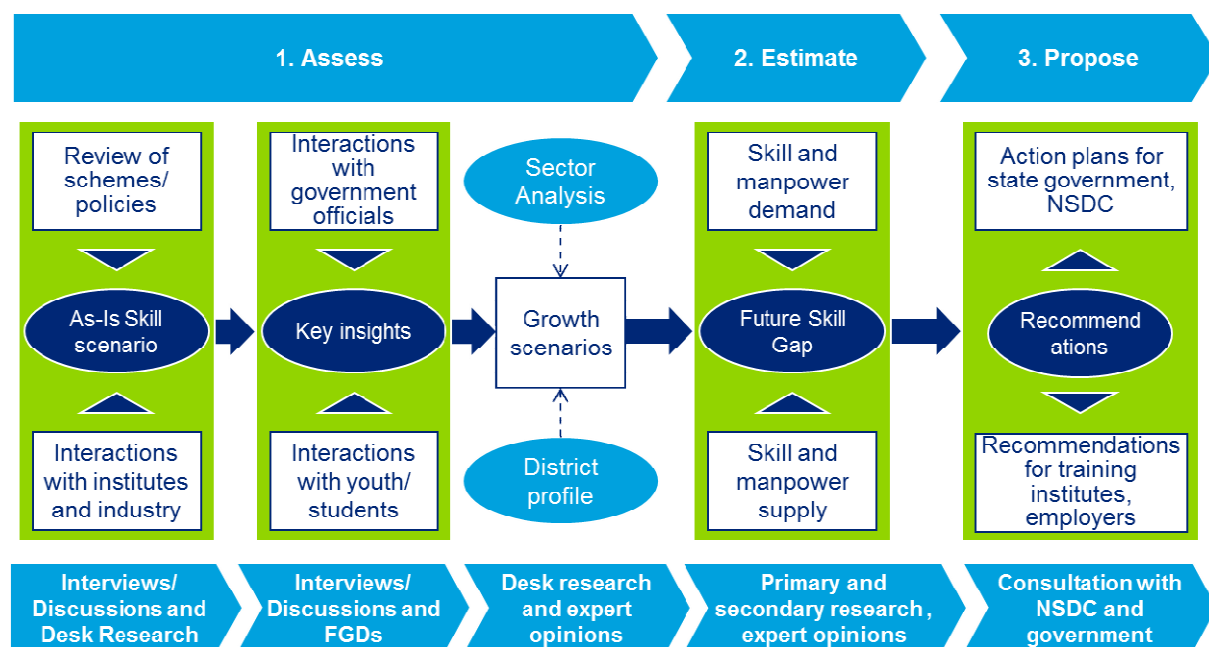
- Socio-economic profile including demography, economic profile by industry and state of education in all the districts in the state
- Identify developmental opportunities keeping in mind factor endowments and stakeholder perspectives
- Identify specific developmental initiatives/projects which have an impact on employment generation
- Articulate the aspirations of the youth
- Identify the current and future (2012 to 2022) skills and manpower requirements by industry and estimate the gap that exists
- Study the existing VT infrastructure both in the private sector and the government domain
- Identify current schemes and programs relating to skill development and their achievements / challenges.
- Suggest suitable interventions/recommendations to address the skills gap
- Create an action plan with indicative timelines

The current report outlines (a) brief approach and methodology used in the study, (b) district profile and estimated skill gap for two districts (c) way forward for the study.

2. Brief Approach & Methodology

Based on the scope of work, the methodology used for the study comprises 3 distinct elements/modules as illustrated below:

Figure 2.1 - Methodology



In the assess phase, after finalizing the project plan & primary research tools like questionnaires for the interactions, agenda for focus group discussions (submitted as part of inception report) we have undertaken the following activities:

- Interactions with State Government officials of the relevant departments – please refer appendix 5.1 for the list of key government officials met
- Interactions with industry representatives including industry associations – please refer appendix 5.2 for the list of key industry representatives met in the districts
- Interactions with educational and skill development institutes – please refer appendix 5.3 for list of key educational and skill development institutes met in the districts
- Visit to each district of Jharkhand to collect primary data and interact with the youth, students and women. Please refer appendix 5.4 for list of focus group discussions (FGD) conducted at district level.

Initial findings of the assess phase along with the excel model developed for estimation of future manpower requirement was presented to NSDC in the interim presentation.

The objective of estimate module is to analyse the data collected in the assess phase and quantify current and future manpower requirement. The key steps in this module include:

- **Estimation of Incremental Demand:** The objective of this sub-module is to estimate the incremental manpower demand at various skill levels (skilled, semiskilled and minimally skilled as defined for the sectors in appendix 5.8) for a district. The key steps in the methodology adopted to estimate incremental manpower demand for a sector in a district are highlighted below: (Please refer appendix 5.7 for the list of secondary sources used)

1. **Anticipate growth rate (CAGR) of the sector (A)** – Sector level growth rate has been anticipated taking into account past growth trend of the sector, primary interaction with the representatives of the industries engaged in the sector, relevant department of the government, district industries centres and literature review on sector level outlook in the district & state.
2. **Project Gross District Domestic Product (GDDP) till 2022 (B)** – Sector level GDDP till 2022 has been projected based on the anticipated growth rate (CAGR) of the sector.

Input

1. Anticipated growth rate (CAGR) of the sector (A)
2. GDDP of the sector in 2011 (C)

Formulae

$$\text{GDDP till 2022 (B)} = \text{C} * (1+A)^n$$

Where n = 1 for 2012, 2 for 2013 and so on

3. **Estimate sector level employment in 2001 (D)** – To estimate sector level employment in 2001 in the district we have first calculated state level contribution per person employed in the sector.

Input

1. State level contribution of the sector to GSDP in 2001 (F)
2. State level employment in the sector in 2001 (G)

Formulae

State Level contribution per person employed in the sector **(E) = F / G**

Sector level employment in the district in 2001 has been estimated based on state level contribution per person employed in the sector in 2001 and district level contribution of the sector to the GDDP in 2001. Contribution per person employed in a sector has been assumed to be uniform across the state.

Input

1. District level contribution of the sector to GDDP in 2001 (H)
2. State level contribution per person employed in the sector 2001 (E)

Formulae

Sector level employment in the district in 2001 **(D) = H / E**

4. **Estimate sector level employment in 2011 (I)** – Sector level employment in 2011 has been estimated based on employment elasticity and CAGR of the sector in the period 2001-11.

Input

1. Sector level employment in 2001 (D)
2. Sector employment elasticity (λ)
3. CAGR of the sector in the period 2001-11 (g)

Formulae

Sector level employment in the district in 2011 **(I) = D * (1 + λ * g)¹⁰**

5. **Project sector level employment till 2022 (J)** – Sector level employment till 2011 has been projected based on employment elasticity and anticipated growth rate.

Input

1. Sector level employment in 2011 (I)
2. Sector employment elasticity (λ)
3. Anticipated growth rate (CAGR) of the sector (A)

Formulae

Sector level employment in the district till 2022 (J) = $I * (1 + \lambda * A)^n$

Where $n = 1$ for 2012, 2 for 2013 and so on

6. **Estimate sector level incremental manpower demand (K)**–Sector level incremental manpower demand is estimated as a difference of sector level employment in 2022 and 2011.

Input

1. Sector level employment in 2011 (I)
2. Sector level employment in 2022 (J)

Formulae

Sector level incremental manpower demand (K) = $J - I$

7. **Classify incremental demand into various skill levels**–Sector level incremental demand has been classified into skill levels (skilled, semiskilled & minimally skilled) based on primary interactions with the industry representatives to understand the current level of educational qualification required at various levels, relevant government department and literature survey to understand current employment at various skill levels. Please refer annexure 5.8 for educational qualification required at skill levels in the sectors and appendix 5.12 for percentage employment at skill levels in various sectors

- **Estimation of Incremental Supply:** The objective of this sub module is to estimate the incremental manpower supply at skill levels for a district. Key steps in the methodology adopted are highlighted below:

1. **Project district population till 2022 (X)**–The population of the district has been projected till 2022 based on annual growth rate of population (2001-2011).

Input

1. Annual growth rate of population (α)
2. Population of the district in 2011 (Y)

Formulae

District population till 2022

(X) = $Y * (1 + \alpha)^n$

Where $n = 1$ for 2012, 2 for 2013 and so on

2. **Estimate population in the age group of 15-59, working age population (Z)** –The projected population is distributed into various age groups (0-14, 15-59, 60 and above) as per “Projection of population composition” – Population projection report, NRHM.

Input

1. District population (X)
2. % of population in the age group of 15-59 (β)

Formulae

Population in the age group of 15-59

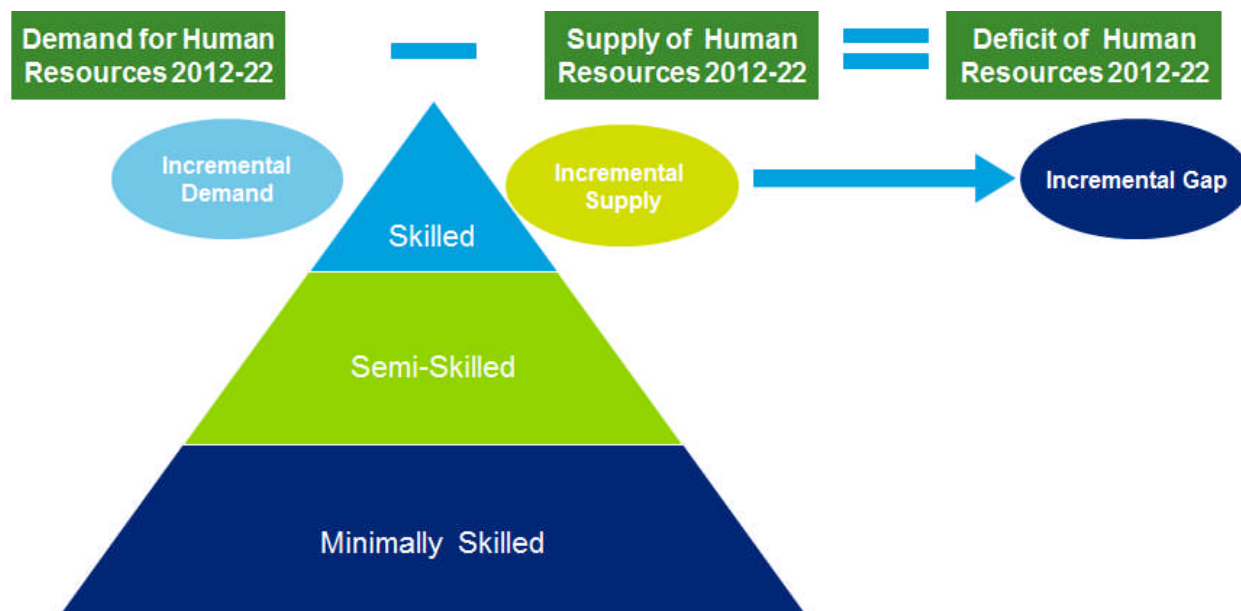
(Z) = $\beta * X$

3. **Estimate Labour Force (L)** –Available labour force is estimated based on Labour Force participation Rate in the district

<p>Input</p> <ol style="list-style-type: none"> 1. Population in the age group of 15-59 (Z) 2. Labour Force Participation Rate (μ) 	<p>Formulae</p> <p>Labour Force (L) = $\mu * Z$</p>
---	---

4. **Incremental manpower supply** – Incremental manpower supply is estimated as a difference of available labour force in 2022 and 2011.
 5. **Classify incremental manpower supply into various skill levels** –The incremental manpower supply is classified into various skill level (skilled, semi-skilled and minimally skilled) based on available labour force and output of educational institutes (professional, vocational etc.) in the district.
- **Estimation of Incremental Demand Supply Gap:** Incremental demand supply gap is calculated as a difference of estimated aggregate incremental demand and estimated aggregate incremental supply at skill levels (calculated in the sub-modules above) as highlighted in the figure below

Figure 2.2–Incremental Demand Supply Gap



As per the above detailed methodology, state level and district level incremental manpower requirements have been estimated and presented in the following sections of the report.

3. Jharkhand – State Profile

3.1 Demography

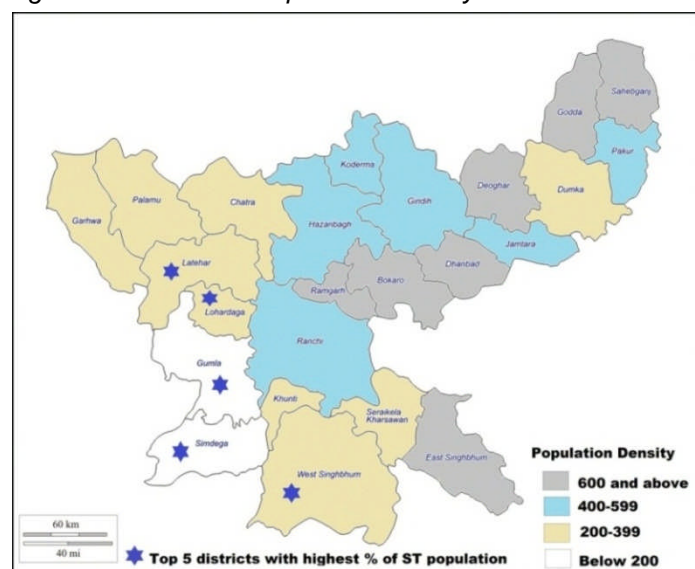
The state of Jharkhand, India's twenty-eighth state was carved out of southern Bihar and came into existence on November 15, 2000. It is bound by Bihar on the north, West Bengal in the east, Orissa in the south and Chhattisgarh & UP in the West. It covers an area of about 79714 sq. km amounting to 2.5% of the geographical land of India¹. Administratively the state has been divided into 24 districts. As per census 2011, Jharkhand has a population of 3.29 crores amounting to 2.7% of India's population². The population density of the state is higher than the national average. Further, distribution of population among the districts is uneven with 7 districts registering a population density of more than 600 persons per square kilometre. Majority of the state population (about 76%) still live in rural areas. However, there has been a steady growth in urban population, with emergence of industrial clusters in the districts of Ranchi, Dhanbad, East Singhbhum and Bokaro.

Table 3.1–Demographic Profile of Jharkhand

Demography	Jharkhand	India
Population (2011)	3,29,66,238	121,01,93,422
Decadal Population Growth Rate (2001-11)	22.34%	17.64%
Population density per sq. km (2011)	414	382
Sex Ratio (2011)	947	940
Percentage of Urban Population (2011)	24%	31.2%
Percentage of SC population (2001)	11.8%	16.2%
Percentage of ST population (2001)	26.3%	8.2%
Net Migration Rate	1.8%	NA

Source: Census 2001, 2011; NSSO 64th Round, Report No. 533

Figure 3.1–Profile of Population Density of Jharkhand



Source: Census 2001, 2011; Deloitte Analysis

¹ Statistical Profile of Jharkhand

² Census of India, 2011

With 26.3% of the state's population comprising tribal communities (compared to the all India average of 8.2%), Jharkhand is predominantly a "tribal state"³. The schedule tribes are primarily rural with 91.7% of the ST population residing in villages⁴. The top five districts with highest percentage of ST population are highlighted in the table below.

Table 3.2–Top 5 districts with highest percentage of ST population

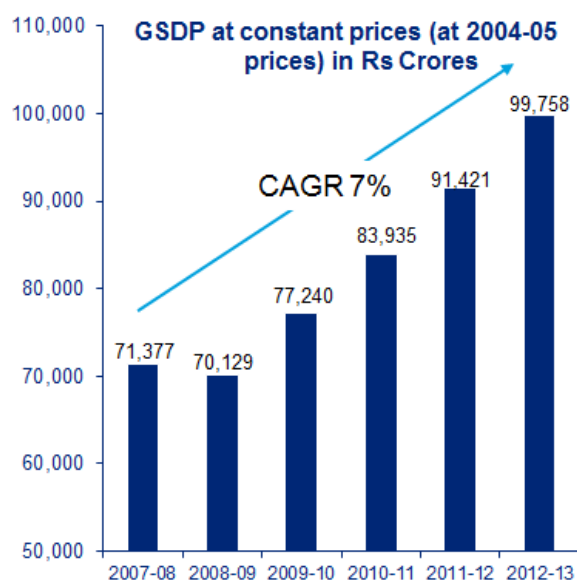
District	ST Population (2001)	Percentage of Scheduled Tribe Population
Simdega	3,60,825	70%
Gumla	5,59,772	67%
West Singhbhum	8,06,472	65%
Lohardaga	2,03,053	56%
Latehar	2,53,365	45%

Source: Census 2001

3.2 Economic Profile

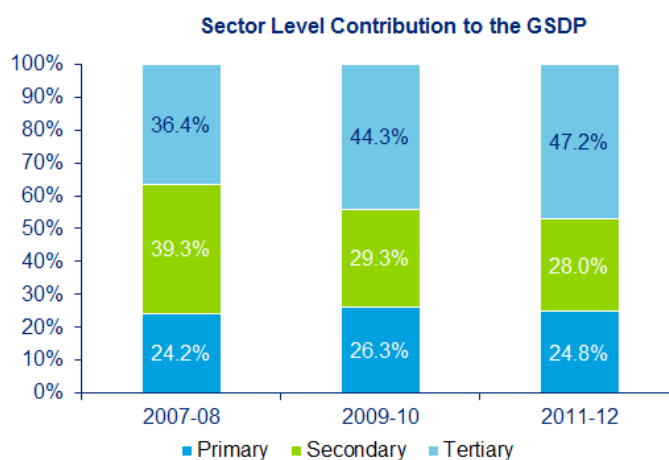
Gross State domestic product (GSDP) of Jharkhand has registered a CAGR of about 7% (estimated at constant prices 2004-05) between 2007-08 and 2012-13⁵. The contribution of the primary sector has almost remained constant; however there has been a gradual increase in the contribution of the tertiary sector to the GSDP.

Figure 3.2–GSDP of Jharkhand at constant prices (2004-05)



Source: CSO

Figure 3.3–Sector level contribution to the GSDP



Source: CSO

There has been a gradual decrease in contribution of secondary sector. In 2011-12, secondary sector contributed about 28% to the GSDP of Jharkhand. The decrease in contribution of secondary sector can be primarily attributed to decrease in contribution from Electricity, Gas and Water Supply.

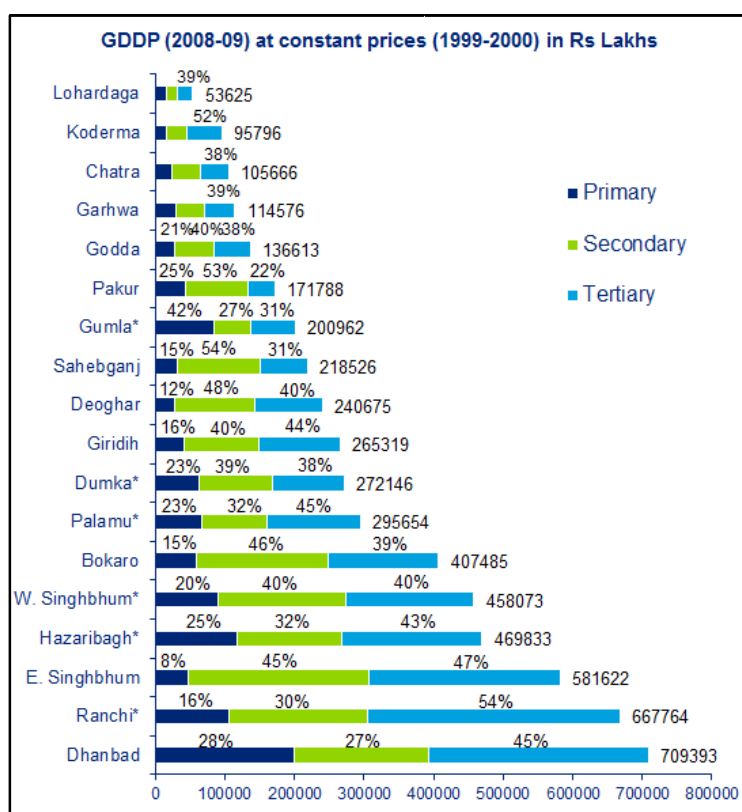
³ Census of India, 2001

⁴ Census of India, 2001

⁵ Directorate of Economics and Statistics, Jharkhand

The state per capita income (estimated at 2004-05 prices) has increased from Rs. 20,646 in 2009-10 to Rs. 22,902 in 2011-12, however it is still lower than the national average of Rs. 38,005 during 2011-12.⁶ The districts of Dhanbad, Ranchi, East Singhbhum, Hazaribagh and West Singhbhum are the top 5 districts in terms of contribution to the GSDP. Gross District Domestic Product (GDDP) is highlighted in the chart below.

Figure 3.4–GDDP (2008-09) at constant prices (1999-2000)



Source: Census 2011

* Combined districts

As it can be observed from the chart above, the top 5 districts namely Dhanbad, Ranchi, East Singhbhum, Hazaribagh and West Singhbhum contribute more than 50% to the GSDP. These 5 districts are also among the most populous districts of Jharkhand.

The key sector of each of district (as per % contribution to the GDDP) is highlighted in the table below.

Table 3.4– District level key sector

Sector	Districts
Primary	Gumla ⁷
Secondary	East Singhbhum, West Singhbhum ⁸ , Bokaro, Dumka ⁹ , Deoghar, Sahebganj, Pakur, Godda,

⁶ <http://pbplanning.gov.in/pdf/Statewise%20GSDP%20PCI%20and%20G.R.pdf>

⁷ Gumla includes Simdega

⁸ West Singhbhum includes Saraikela Kharsawan

⁹ Dumka includes Jamtara

Sector	Districts
Tertiary	Dhanbad, Ranchi ¹⁰ , Hazaribagh ¹¹ , Palamu ¹² , Giridih, Garhwa, Chatra, Koderma, Lohardaga

Secondary or tertiary sector are the highest contributors to the GDDP of most of the districts. Gumla is the only district in Jharkhand in which primary sector has the highest contribution to the GDDP.

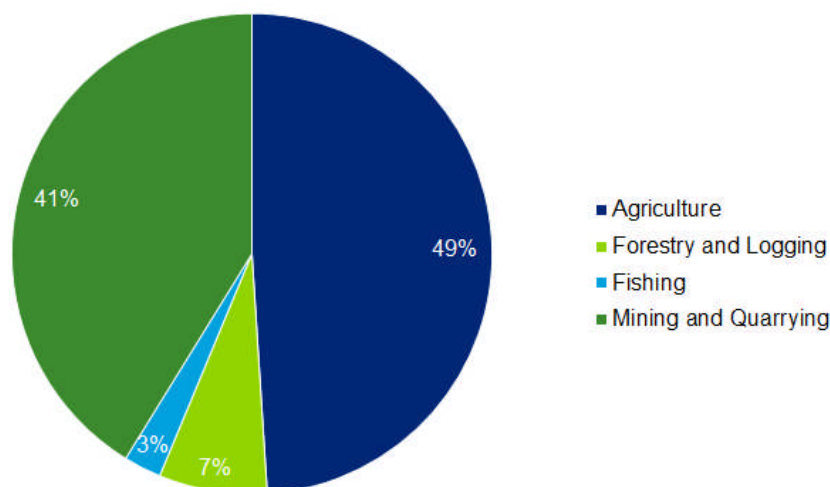
Sector level analysis of the state is highlighted in the following sections.

Primary Sector

As highlighted in the figure below agriculture and allied activities & mining contribute about 49% & 41% to the primary sector respectively¹³.

Figure 3.5–Contribution to Primary Sector

Contribution to Primary Sector in 2008-09 at 1999-00 prices)



Source: Directorate of Economics & Statistics, Jharkhand

Various activities under primary sector are discussed in detail below:

Agriculture and Allied Activities –Jharkhand is predominantly an agrarian economy with about 67% of the state's population is dependent on agriculture and allied activities like animal husbandry, fisheries and forestry¹⁴. Agriculture is the highest employment and primary income generating activity of the state. The sector contributed about 12% to the GSDP in 2008-09 however during 2004-05 and 2008-09 the sector's contribution to GSDP at constant prices (1999-00) shrunk at a CAGR of 1.72%.

Total cultivable land and net sown area in Jharkhand is about 29.00 lakh hectares & 15.04 lakh hectares which is about 36.36% and 18.87% of the total geographical area respectively¹⁵

¹⁰ Ranchi includes Khunti

¹¹ Hazaribagh includes Ramgarh

¹² Palamu includes Latehar

¹³ Census of India, 2001

¹⁴ Transforming Jharkhand – Report of the Chief Minister's Committee for Development of Jharkhand

¹⁵ Directorate of Economics and Statistics, Jharkhand

The agricultural economy of the state is characterized by inadequate irrigation facilities, small & marginal land holdings, and monocropping leading to low productivity.

- The existing irrigation facilities cover only about 23.95% of the arable land in Jharkhand.¹⁶
- The average land holding in the state is about 1.58 hectares. The share of the landholdings of small and marginal farmers to the total holdings is about 80%¹⁷. Only 0.84% of the land holdings are in the category of 10 hectare and above.
- Food grain is cultivated in about 92% of the cropped area and approximately only 3-5% area is under cash crops. 40% of the total cropped area is largely mono-cropped under paddy.

Because of the above reasons the state lags behind the national average in the productivity of key agro crops such as paddy, wheat, maize, oil seeds. However, state performance is better than national average in case of pulses.

Horticulture– State's conditions are well suited for horticultural production. The agro-climatic condition of the State is conducive for commercial cultivation of large variety of fruits, vegetables, flowers and medicinal & aromatic plants. Around 2.56 lakh hectare of land is under horticulture crops in Jharkhand.¹⁸ Of the total land under horticulture, vegetables occupy 80%, fruits occupy 13% and spices occupy the rest 7%¹⁹. Major fruits crops grown in the state are Mango, Banana, Guava, Litchi and Citrus. During 2004-05 to 2009-10 the production of fruit crops in Jharkhand increased at a CAGR of 5.2%.

Considering the agro-climatic suitability and future growth prospects, the State Government is implementing various schemes and programmes for promoting the sector. A major thrust is being given for bringing additional areas under various plantation and horticulture crops and enhancing the productivity of the crops. Horticultural development has vast potential not only in terms of meeting the local requirements of fruits, vegetables, flowers, and medicinal and aromatic plants but also in terms of exploring the opportunities for exports.

Major horticultural clusters in the state are highlighted in the table below.

Table 3.5– Major horticulture clusters in Jharkhand

Crop	Districts
Mango	Deoghar, Dumka, Saraikela, East Singhbhum
Litchi	Hazaribagh, Ranchi, Lohardaga
Citrus (Lime/ Lemon)	Palamu, Chatra, Latehar
Papaya	Hazaribagh, Ranchi, Lohardaga
Chili	Latehar, Dumka, Hazaribagh, Ranchi, East Singhbhum

¹⁶ Transforming Jharkhand – Report of the Chief Minister's Committee for Development of Jharkhand

¹⁷ Jharkhand State Agriculture Development Plan – 2008-09 to 2011-12

¹⁸ Statistical Profile of Jharkhand

¹⁹ Statistical Profile of Jharkhand

Crop	Districts
Ginger	Hazaribagh, Ranchi, Lohardaga
Turmeric	Hazaribagh, Ranchi, Lohardaga
Marigold	Chatra, Deoghar, Hazaribagh, Ranchi, Saraikela
Rose+ Gerbera+ Carnation	Hazaribagh, Ranchi, Saraikela, East Singhbhum
Aromatics	Ranchi, Lohardaga, Saraikela, East Singhbhum

Source: Department of Agriculture and Sugarcane Development, Jharkhand

As evident from the table above Deoghar, Dumka, East Singhbhum, Saraikela, Hazaribagh, Ranchi, Lohardaga, Palamu, Chatra and Latehar are the leading districts engaged in production of horticulture crops in the state.

Sericulture – Jharkhand ranks first among the tasar producing states, with a contribution of about 50-60% of the country's production. Tasar culture is concentrated mainly in the tribal areas of the state such as Santhal Parganas and Chotanagpur regions particularly in the districts of West Singhbhum, Ranchi, Dumka, Godda, Giridih and Saraikela accounting for about 65% rearers. Currently about 36000 hectare of land is being used for tasar silkworm rearing.

Animal husbandry and livestock – Animal husbandry and livestock is an integral part of the agriculture sector. Animal husbandry activities like dairy, goat rearing etc. have a good potential in the state due to larger area under pastures and fallow – land. It also has the potential to generate additional employment and income for the people.

Most of the dairy development activities in Jharkhand are undertaken by Dairy Development Directorate. It promotes milk producers' unions in the districts of Ranchi, Lohardaga, Palamu, Gumla, Chaibasa, East Singhbhum, Hazaribagh and Bokaro by collecting milk from rural areas through milk cooperative societies and marketing in the urban areas. There are dairy plants at Jamshedpur, Bokaro & Ranchi and 13 milk chilling plants in different districts of the State under Dairy Development Directorate.

The table below highlights the major livestock clusters in the state.

Table 3.6– Major livestock clusters in Jharkhand

Activities	Districts
Goatery	Dumak, Deoghar, Godda, Simdega, Gumla, Lohardaga, Chatra, Koderma, Sahebganj, West Singhbhum
Piggery	Khunti, Simdega, Gumla, Lohardaga, Hazaribagh, Ramgarh, Chatra, Koderma, Giridih, Bokaro, Dhanbad, Garhwa, West Singhbhum
Sheep Rearing	East Singhbhum, Garhwa
Dairy	Khunti, Hazaribagh, Pakur, Bokaro, Ranchi, Giridih, Palamu

Activities	Districts
Poultry	Deoghar, Sahebganj, Ramgarh, East Singhbhum, Garhwa, Hazaribagh

Source: Department of Animal Husbandry and Fisheries, Jharkhand

Fisheries – Fisheries is an important economic activity in the state for additional employment and income generation. Fisheries provides additional employment opportunities to a large number of people engaged in harvesting, net and boat making, seed production, transportation and marketing of fish in whole sale and retail markets. Currently about 1.55 lakh hectare of water area is under fisheries. Fish production in the state increased from 34920 MT in 2005-06 to 70517 in 2009-10. In spite of quite suitable agro – climatic conditions the state lags behind the national level of fish production. Against the national average of 2150Kg/Hectare/Year, the present level of fish production in Jharkhand is about 1600 Kg/Hectare/year. The main reason for this poor performance is that most of the tanks are very old and practically unsuitable for fish culture due to heavy siltation and weed infestation²⁰.

Mining & Quarrying – Jharkhand is one of the leading mineral bearing state of India. The state has deposits of energy, ferrous, non-ferrous, fertilizer, refractory, atomic, precious and semi-precious stone. Jharkhand's vast natural resources include iron ore, copper ore, coal, mica, bauxite, fire clay, graphite, kyanite, lime stone, uranium etc. Jharkhand has approximately 29%, 27% and 16% of the national reserve/ resources of coal, iron ore copper respectively²¹. The table below highlights the major mineral clusters in Jharkhand.

Table 3.7– Major mineral clusters in Jharkhand

Mineral	Districts
Coal	Bokaro, Chatra, Deoghar, Dhanbad, Dumka, Garhwa, Giridih, Godda, Hazaribagh
Iron Ore	Palamu, West Singhbhum
Bauxite	Latehar, Lohardaga, Gumla
Uranium	East Singhbhum
Copper	East Singhbhum
Mica	Giridih, Hazaribagh, Jamtara, Koderma
Fire Clay	Deoghar, Dhanbad, Hazaribagh, Palamu, East Singhbhum
Dolomite	Garhwa, West Singhbhum, Palamu,

²⁰ Department of Animal Husbandry & Fisheries, Government of Jharkhand

²¹ Department of Mines and Geology, Jharkhand

Mineral	Districts
Lime Stone	Hazaribagh, Palamu, West Singhbhum, Ranchi
Kaolin	East Singhbhum, Ranchi, Sahebganj
Stone-chips	Hazaribagh, Pakur, Jamtara, Koderma, Sahebganj, Sarikela Kharswan, Simdega
Kyanite	West Singhbhum
Manganese	Palamu, West Singhbhum
Feldspar	Hazaribagh, Palamu
Silver	Deoghar, Dhanbad, East Singhbhum

Source: Department of Mines and Geology, Jharkhand

As it is evident from the table above, most of the districts of Jharkhand have rich reserves of mineral resources.

Based on the economic profile of the districts (detailed in the following chapters) the table below summarizes the information related to the primary sector of the top 8 districts accounting about more than 70% of total primary output of the state:

Table 3.8– Key districts with high primary output

District	Contribution of the district to State Primary Output	Major Crops	Allied Activities	Mineral Resource	Highest Contributor
Dhanbad	18%	Paddy, Wheat, Pulses and Horticulture of vegetables	Piggery	Coal, Fire Clay, Silver	Mining activities account for 93% of the primary output
Hazaribagh*	11%	Paddy, Wheat, Horticulture of fruits and spices	Piggery, Dairy, Poultry	Coal, Feldspar, Fire-Clay, Lime Stone, Mica, Stone Chips	Mining activities account for 63% of the primary output
Ranchi*	10%	Paddy, Maize, Wheat, Pulses, Oilseed, Horticulture of fruits and spices	Dairy	Lime Stone, Kaolin	Agriculture contributes 73% of the primary output
West Singhbhum*	8%	Paddy, Maize, Oilseeds	Floriculture, Piggery, Goatery	Iron Ore, Dolomite, Kyanite, Lime Stone, Manganese	Agriculture contributes 69% of the primary output
Gumla*	8%	Paddy, Pulses, Maize	Goatery, Piggery	Bauxite	Agriculture contributes 88% of the primary

District	Contribution of the district to State Primary Output	Major Crops	Allied Activities	Mineral Resource	Highest Contributor output
Palamu*	6%	Paddy, Maize, Pulses	Dairy	Iron Ore, Fire Clay, Dolomite, Feldspar, Lime Stone, Manganese	Agriculture contributes 72% of the primary output
Dumka*	6%	Paddy, Maize, Wheat, Pulses, Horticulture of fruits	Goatery, Sericulture	Coal	Agriculture contributes 85% of the primary output
Bokaro	5%	Paddy, Maize	Piggery, Dairy	Coal	Mining activities account for 84% of the primary output

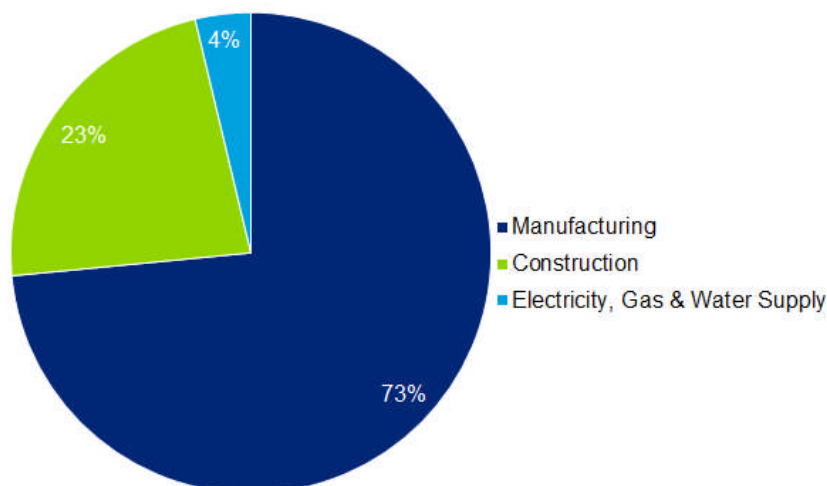
*Combined districts Source: Deloitte Analysis

Secondary Sector

As highlighted in the figure below, manufacturing accounted for 73% of the secondary sector in 2008-09.

Figure 3.6– Contribution to secondary sector

Contribution to Secondary Sector in 2008-09 at 1999-00 prices



Source: Directorate of Economics & Statistics, Jharkhand

Manufacturing - As highlighted in the previous section, Jharkhand ranks high in the list of states having vast mineral resources. Easy availability of raw materials has led to industrialization in the state. Large deposits of coal and iron ore has supported development of industrial centres like Jamshedpur, Bokaro, Ranchi and Dhanbad. Jamshedpur is the oldest industrial town in the state with several types of industrial units like steel, automotive, metals, chemicals, power, cement etc. Several other industrial areas have also been developed in the state based on the location of mineral reserves and related down-stream industries. Some of the major industrialized regions of the state are highlighted in the table below.

Table 3.9– Major industrial clusters in Jharkhand

Region		Mineral Deposits	Major Industries
Palamu-Garhwa		Deposits of Iron Ore, Dolomite, Coal, Graphite, China Clay & Granite	Mineral and chemical based industries
Lohardaga Area/ Latehar	Industrial	Bauxite	Aluminium Industries, Power Plants
Koderma-Industrial Area	Hazaribagh	Mica, Stone Chips, Coal, Fire – Clay, Lime Stone	Mica Based Industries, Power Plant, Glass, Alloy Steels, Cement, Refractory
Ranchi Industrial Area		-	Medium and Large Scale Industries, IT-ITES, Food Processing
Dhanbad – Industrial Area	Bokaro	Coal, Fire Clay, Silver	Coal and Steel, Refractories, Coal based Power Plants
Singhbhum Area	Industrial	Iron Ore, Dolomite, Kyanite, Lime Stone, Manganese, Uranium, Copper, Quartzite, Kaolin, Fire Clay	Iron & Steel, Auto Components, Cement, IT-ITES, Horticulture, Food Processing, Silk and Textile
Ghatsila Industrial Area		Copper	Copper and Forest based Industries
Deoghar – Santhal Pargana	Jasidih &	Coal, Fire Clay, Silver	Glass, Steel, Aromatic- Medicinal Plant, Coal based power plant, Silk textile industries, Food Processing

Source: Department of Industry & Department of Mines and Geology, Jharkhand

As highlighted in the table above, the main industrial centres in Jharkhand include Ranchi, Dhanbad, Jamshedpur (East Singhbhum) and Bokaro. Ranchi, the capital of Jharkhand, has developed as an important techno-industrial centre. Major facilities in the district include Heavy Engineering Corporation Ltd, Mecon Ltd, Research and Development Centre for Iron and Steel of SAIL, Central Coalfields and Usha Martin. Dhanbad, known as coal capital of India, has prominent companies such as Fertilizer Corporation of India and Bharat Coking Coal Ltd. Jamshedpur, located in East Singhbhum, district of Jharkhand, has the steel factory of Tata Steel. Other major industries in the district include Tata Motors, Tata Power and Lafarge Cement. Bokaro steel city, located in the Bokaro district of Jharkhand, is home to SAIL's Bokaro Steel Plant and two thermal power plants operated by Damodar Valley Corporation.

In order to facilitate setting up of small scale industries supporting the large industrial facilities, the Government of Jharkhand has set up four Industrial Area Development Authorities in different parts of State through which necessary facilities like land, water, power and other infrastructural support is provided to willing investors.

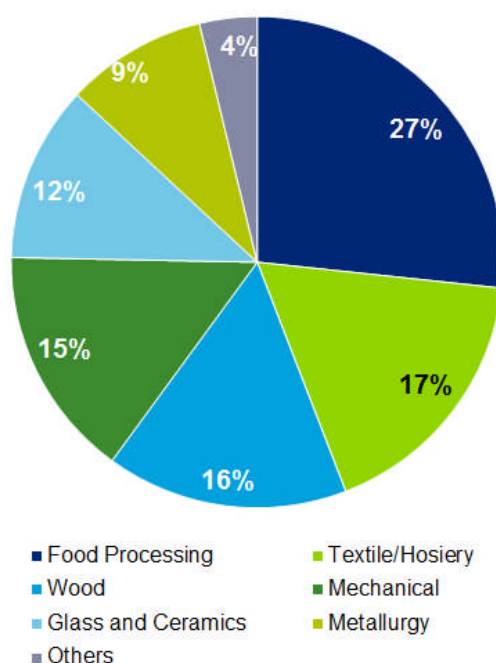
- Adityapur Industrial Area Development Authority (Jamshedpur) has about 34,000 acres of land under its control in which about 900 units have been established. Majority of the established units are in the area of heavy and light engineering, automobile, ferro-casting, chemical, plastic and rubber, forging and mineral based
- Ranchi Industrial Area Development Authority has about 1500 acres of land under its control in which about 550 units have been established. Majority of the units are in the area of engineering (machining/ fabrication), mines – and mineral based, chemical, electrical and electronics, metallurgy (foundry and forge), casting and rolling, plastics and rubber.

- Bokaro Industrial Area Development Authority has supported setting up of about 500 units spread across 3 districts, namely, Bokaro, Dhanbad, and Giridih. Majority of the units are in the area of fabrication, making products out of steel as well as cement out of slag.
- Santhal Pargana Industrial Area Development Authority was established in 2007 with headquarters in Dumka to promote small scale industries in the area.

The major industrial centres in the state is also characterized by presence of micro, small and medium enterprises (MSMEs), operating as ancillaries to the large industries. MSMEs also form the back bone of the manufacturing sector in the other districts of the state. Jharkhand has about 93 thousand manufacturing MSME units providing employment to about 3 lakh persons²². The focal manufacturing MSME sectors are presented in the figure below.

Figure 3.7– Focal MSME sectors in Jharkhand

Focal manufacturing MSME sectors



Source: Quick results of 4th MSME All India Census

It is evident from the chart above that food processing, textiles, wood & wood craft and mechanical engineering account for about 75% of the MSMEs in the state. Major identified MSME clusters in the state are presented in the table and depicted in a map below:

Table 3.10– Major MSME clusters in Jharkhand

Industry	Districts	Approximate Employment in organized sector(2012) ²³
Food Processing	Ranchi, Eastern Singhbhum	75000
Handlooms & Handicrafts	Deoghar, Hazaribagh, Ramghar	18000

²² Quick results of 4th MSME All India Census

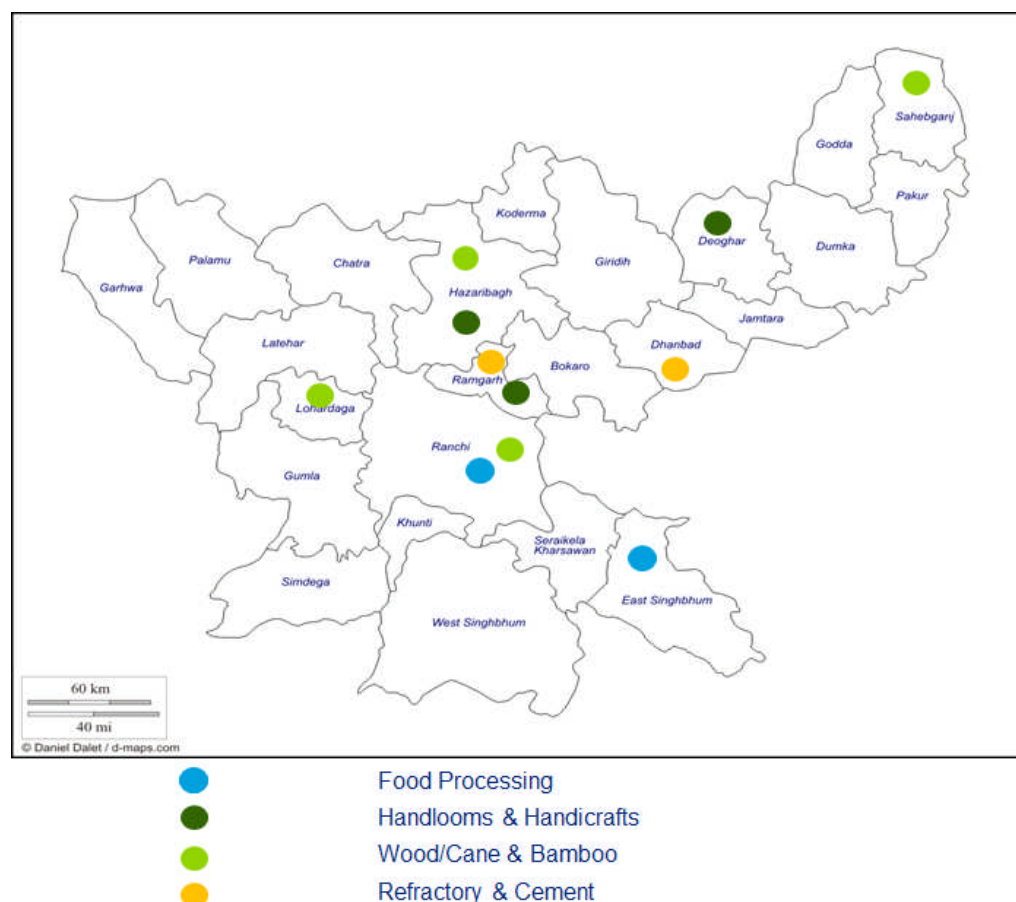
²³ Deloitte Analysis

Industry	Districts	Approximate Employment in organized sector(2012) ²³
Wood/ Cane & Bamboo	Ranchi, Lohardaga, Hazaribagh, Sahebganj	40000
Metal Crafts	Hazaribagh, Khunti	N.A
Ceramics (Terracotta)	Deoghar	2500
Handtools (Forging)	Bokaro, Ramghar	N.A
Refractory	Dhanbad	25000
Cement	Dhanbad, Ramghar	10000

Source: Department of Industry, Jharkhand & MSME-DI, Ranchi

As evident from the table above, food processing and wood & wood craft are the highest employing MSME clusters in the state. Major clusters based on employment are highlighted in the map below.

Figure 3.8– Major MSME clusters in Jharkhand



Source: Deloitte Analysis

Major manufacturing industries in the state are highlighted below:

Iron and Steel Industry– As highlighted earlier, Jharkhand is a mineral-rich state with about 40% of the India's mineral reserves available in the state. Mining activities support a lot of downstream industries like iron & steel and thermal power generation. Key players in the state include Tata Steel Limited, SAIL, Hindalco Industries Limited, Jindal Steel and Power Limited, Usha Martin Limited and Ramakrishna Forgings Limited.

Engineering Industry–The major growth driver of engineering industry in Jharkhand is availability of raw materials and presence of other major industries such as steel, power, automobiles etc. A number of heavy engineering companies are located in the state such as Heavy Engineering Corporation Limited, McNally Bharat Engineering Company Limited and Tinplate Company of India Limited which produce heavy machine equipment and provide turnkey solution to the existing metal and mining industry in the region. Companies like MECON limited are also present in the state providing consulting/ engineering services.

Automotive Industry–The automotive industry in Jharkhand includes original equipment manufacturers as well as auto component production units. The auto components manufactured in the state include shafts, radiators, axles etc. Key automotive players in the state include Tata Motors Limited, HV Axles Limited, HV Transmission Limited, Apex Auto Limited and JMT Auto Limited.

Cement Industry –Jharkhand has about 5.1 million tonnes per annum of installed cement capacity. Major cement companies in Jharkhand are ACC and Lafarge India. ACC has two plants in Jharkhand – one at Chaibasa with capacity of 0.8 million tonnes per annum and another at Sindri, Dhanbad with capacity of 0.9 million tonnes.

Chemical Industry – The chemical industries in Jharkhand produce wide range of chemicals such as caustic soda, dye and pigments and industrial & medical gas and mostly serve the manufacturing units in East India. Key players in the chemical industry include Aditya Birla Chemicals producing caustic soda, liquid chlorine, hydrochloric acid etc., Tata Pigments producing synthetic iron oxide pigments and BOC India producing oxygen and acetylene.

Food Processing Industry –As highlighted earlier Jharkhand has an agricultural product base supporting a host of food processing industries. The state has on an average 18 lakh tonnes of surplus vegetables²⁴. Mega Food Park at Getalshud, Ranchi is being developed with project cost of Rs.106 crore. The food park would enable MSMEs to attain viability by sharing the cost of major common facilities such as R&D, cold storage, warehousing, laboratory for food testing etc.

The state provides tremendous opportunity for growth of the sector in near future especially in the following categories:

Table 3.11– Potential food processing products

Products	Processing Opportunities
Fruits	Mango – Pickle, Beverage, Pulp, Pectin, Jam, Squash Guava – Jelly, Beverage, Jam Jackfruit – Pickle, Flakes, Canned Roasted Seeds
Vegetables	Cauliflower – Canned, Dehydrated, Pickle Pea – Canned, Dried Tomato – Ketchup, Puree, Pulp, Dried Powder

²⁴ Department of Industries, Jharkhand

Products	Processing Opportunities
Cereals and Pulses	Rice – Rice Bran, Flaked Rice, Bran Oil Wheat – Packaged Atta, Maida, Pasta Maize – Cornflakes, Dairy Feed
Spices	Seed spices coriander, Ginger & Turmeric power/ paste, cumin & fennel based products
Medicinal Plants	Aloe Vera Processing (Powder, Gel, Jelly, Juice & Oil)
Meat	Meat and Meat Products
Fisheries	Fish wafers, Fish balls, Fish Oil

Source: Department of Industry, Deloitte Analysis

Handicrafts – The handicrafts of Jharkhand form a very significant part of the cultural lineage of the state. Some of the important crafts in Jharkhand are bamboo crafts, metal works, paitkar paintings, ornaments, stone carvings and toys. List of key handicraft products manufactured in the state are presented in the table below:

Table 3.12– Major handicraft clusters in Jharkhand

Handicraft Activity	Products	Potential Regions
Wood Crafts	Boxes, Doors, Windows with carved paintings on wooden surface	Lohardaga, Hazaribagh, Sahebganj
Bamboo Crafts	Baskets, Accessories used for fishing and hunting, Boxes, Decorative items	Ranchi, Lohardaga, Hazaribagh, Sahebganj
Paitkar Paintings	Scroll Paintings	Chotanagpur region
Metal Works	Ornaments, Hunting & Agriculture Equipment	Hazaribagh, Khunti
Stone Carvings	Carved Stone Products	Chotanagpur region
Ornaments	Beads Jewellery, Neck Pieces, Earrings, Ornaments worn on the wrists	Chotanagpur region
Toys	Wooden toys for Children	Ranchi

Source: Department of Industries, Jharkhand; Deloitte Analysis

Based on the economic profile of the districts (detailed in the following chapters), the table below summarizes the information related to the secondary sector of the top 8 districts accounting about more than 70% of total secondary output of the state:

Table 3.13– Key districts with high secondary output

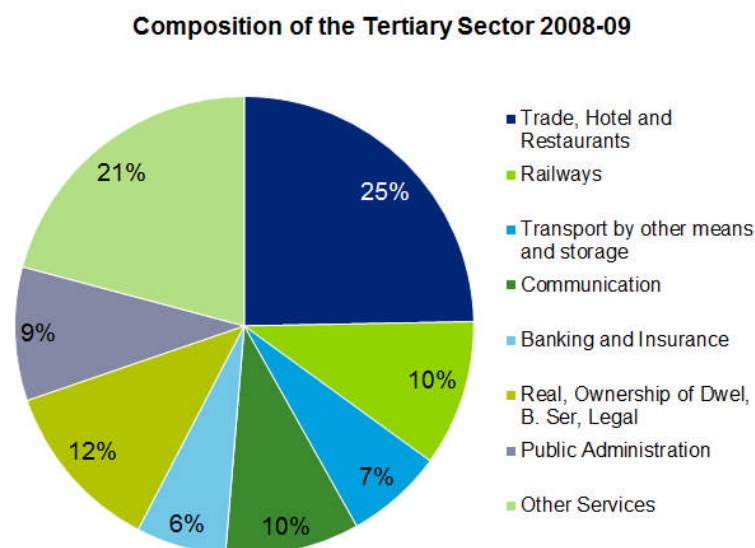
District	Contribution of District to Overall State Secondary Output	Major Sectors	Key MSME Sectors
East Singhbhum	13%	Automobile & Auto Components, Iron & Steel, Cement, Chemical	Food Processing, Silk and Textile, Engineering & Fabrication
Ranchi*	10%	Heavy Engineering, Foundry & Forge	Food Processing, Handlooms and Handicrafts,
Dhanbad	10%	Coke Oven Products, Power Plants	Non-Metallic Mineral Products, Refractory, Cement
Bokaro	9%	Basic Iron and Steel, Power Plants, Coke Oven Products	Fabricated Metal Products, Refractories, Forged Hand Tools,
West Singhbhum*	9%	Auto Components	Fabricated Metal Products, Non-Metallic Mineral Products
Hazaribagh*	7%	Power Plants, Alloy Steel, Structural Metal Products, Cement	Non-Metallic Mineral Products, Refractory, Handlooms & Handicrafts, Metal Crafts
Deoghar	6%	Basic Iron & Steel, Glass, Coal Based Power Plants	Silk Textile, Aromatic - Medicinal Plants, Ceramics (Terracotta) Handloom and Handicrafts
Sahebganj	6%	Steel, Glass	Tobacco Products, Animal Feed, Wood/ Cane& Bamboo products

* Combined districts Source: Deloitte Analysis

Tertiary Sector

Tertiary sector is the largest contributor to the state economy, contributing 47.2% to the GSDP in 2011-12. The key components of the tertiary sector include Trade, Hotel and Restaurants; Real, Ownership of Dwellings, Business & Legal Services; Railways & Communication.

Figure 3.9– Composition of tertiary sector



Source: Directorate of Economics & Statistics, Jharkhand

Major tertiary sectors are discussed below:

Tourism and Hospitality—Tourism has consistently contributed about 25% of the GSDP of Jharkhand. The state offers ample scope of adventure, rural, heritage, religious, spiritual, and eco-tourism. Major tourist locations are listed in the table below:

Table 3.14– Major tourism clusters of Jharkhand

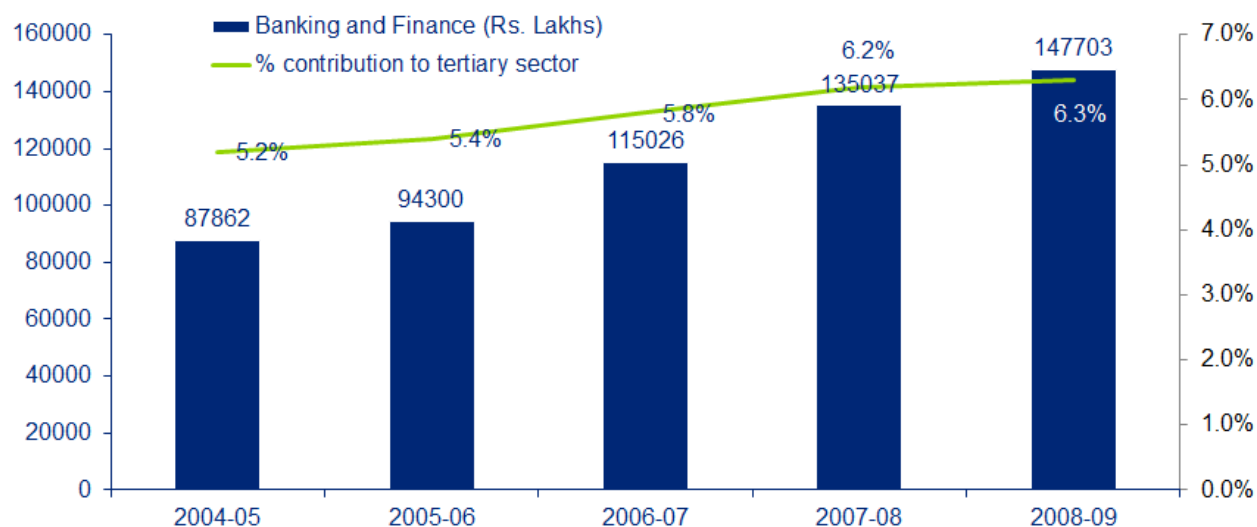
Category of Tourism	Key Districts
Adventure Tourism	Giridih, Latehar
Heritage Tourism	Hazaribagh, Chatra, Dhanbad, Ranchi, Singhbhum, Sahebganj, Palamu
Religious Tourism	Deoghar, Dumka
Spiritual Tourism	Ranchi
Eco- Tourism	Palamu, Hazaribagh, West Singhbhum

Source: Department of Tourism, Jharkhand

With suitable promotional schemes and development of tourist infrastructure, the state has the potential to become a major tourist hub in the country.

Banking and Insurance – Banking and financial services is one of the growing industry in the tertiary sector. It has grown at a CAGR of 10.94% in the period 2004-05 to 2008-09.

Figure 3.10– Growth of banking and insurance sector

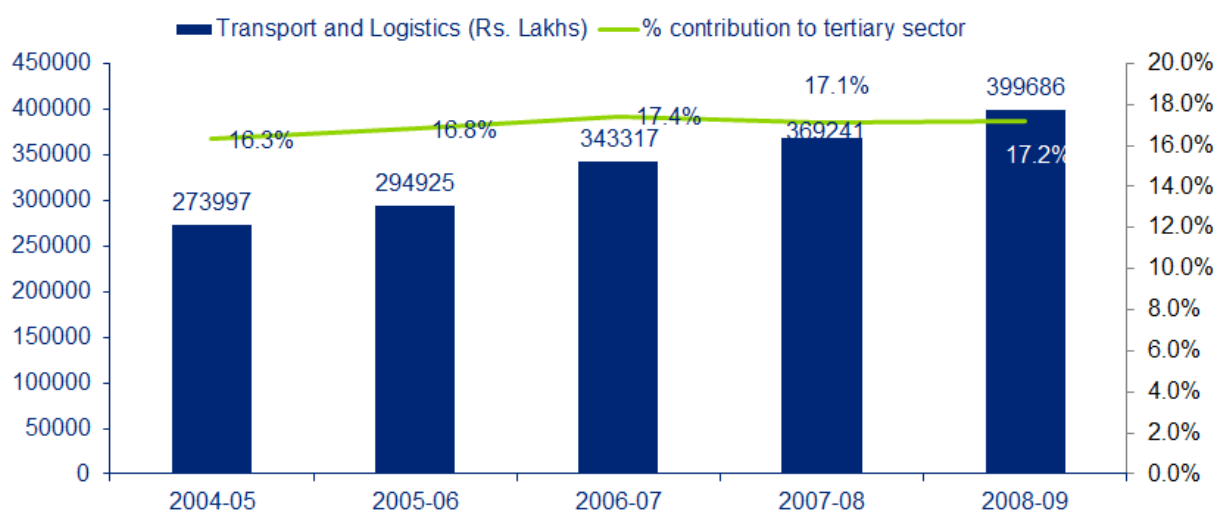


Source: Directorate of Economics & Statistics, Jharkhand

As highlighted in the figure above, the contribution of banking and insurance to tertiary sector has increased from 5.2% in 2004-05 to 6.3% in 2008-09.

Transport and Logistics – Due to presence of mines in the state, transport and logistics is of strategic importance. The sector (including railways) has been growing at a CAGR of 7.8% in the period 2004-05 to 2008-09.

Figure 3.11– Growth of transportation and logistics sector



Source: Directorate of Economics & Statistics, Jharkhand

As highlighted in the figure above, the contribution of transportation and logistics to tertiary sector has increased from 16.3% in 2004-05 to 17.2% in 2008-09.

Based on the economic profile of the districts (detailed in the following chapters), the table below summarizes the information related to the tertiary sector of the top 7 districts accounting about more than 70% of total tertiary output of the state:

Table 3.15– Key districts with high tertiary output

District	Contribution of District to Overall State Secondary Output	Major Sectors
Ranchi*	16%	Travel & Trade, Media & Communication, Health Care, Banking and Finance, Education and Skill Development
Dhanbad	14%	Travel & Trade, Transport & Logistics, Health Care, Banking & Insurance
East Singhbhum	12%	Travel & Trade, Media & Communication, Health Care, Banking and Finance, Education and Skill Development
Hazaribagh*	9%	Travel & Trade, Transport & Logistics, Health Care, Banking & Insurance
West Singhbhum*	8%	Transport & Logistics, Travel trade, Banking and Finance
Bokaro	7%	Travel & Trade, Media & Communication, Health Care, Banking and Finance, Education and Skill Development
Palamu*	6%	Transport & Logistics, Travel trade, Banking and Finance, Education & Skill Development

*Combined districts Source: Deloitte Analysis

3.3 Promotional Initiatives– Thrust Sectors

Based on the current economic profile of the state, the government has undertaken several initiatives for promoting the potential sectors which can drive future employment in the state. As per the Jharkhand Industrial Policy 2012, following sectors have been identified as potential sectors for high economic growth in future:

- Sericulture, Handloom & Handicrafts – The promotional initiatives are aimed at maintaining the leading edge and rejuvenating existing rural industries in the sector through capacity development initiatives and providing marketing assistance.
- Agro/ Food Processing – The promotional initiatives are aimed at setting up new industrial infrastructure to create more off farm jobs, bringing greater value addition and increase the income of rural workforce and farmers
- Automobile and Auto Components –The promotional initiatives are aimed at development of common facilities and skill development centres at the automobile clusters in the state.
- Tourism – The promotional initiatives are aimed at attracting higher investment in the areas with tourist potential and pool up resources from both government and private sector.
- IT-ITES – The promotional initiatives are aimed at attracting future investments in the sector.

The table below summarizes the major promotional initiatives in the thrust sectors and potential regions for growth:

Table 3.16– Sector level promotional initiatives

Sector	Promotional Initiatives	Potential Growth Regions
Sericulture, Handloom & Handicrafts	Jharkhand Silk, Textile and Handicraft Development Corporation established in 2006 to provide design,	Deoghar, Godda, Sahebganj, Dumka

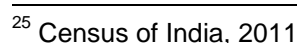
Sector	Promotional Initiatives	Potential Growth Regions
	<p>training, entrepreneurship development, marketing, raw material support in clustered and organized manner.</p> <p>Skill development initiatives:</p> <ul style="list-style-type: none"> Jharkhand Silk Training Centre, Kharsawan in collaboration with NIFT Kolkata SaheedNirmalMahto Institute, Bhagaiya in collaboration with NID, Ahmedabad Apparel Training Centre, Namkum, Ranchi in collaboration with Export Promotion Council, Government of India 	
Agro/ Food Processing	<ul style="list-style-type: none"> Help to private investors by providing a convergence of all existing promotional schemes Mega Food Park is being set up at Ranchi on an area of 56 acre where 32 food processing units will be established. No market fees is being charged on notified agriculture produce purchased for use as raw material from outside the State by food processing industries Private investment on private land will be given assistance of 25% of capital cost of facilities up-to a maximum of 50 lakhs as incentive 	Ranchi, East Singhbhum
Automobile & Auto Components	<ul style="list-style-type: none"> Auto cluster being made operational at Jamshedpur to extend common facilities such as testing centre, design lab etc. Automobile vendor park to be established under PPP mode with auto manufacturers 	East Singhbhum
Tourism	<ul style="list-style-type: none"> Development of Buddhist and Jain Circuit Development of tourist infrastructure on PPP mode 	Deoghar, Godda, Ranchi
IT/ ITES	<ul style="list-style-type: none"> 50% more FAR over and above to permissible FAR of the place will be allowed by the concerned authority/ ULBs for IT-ITES units in earmark IT Parks/ STPs IT-ITES units with 5KVA power requirements can be set up anywhere in the State 	Ranchi, East Singhbhum

Source: Jharkhand Industrial Policy, 2012

Table 3.17– Literacy profile of Jharkhand

Source: Census 2011 & ASER 2012

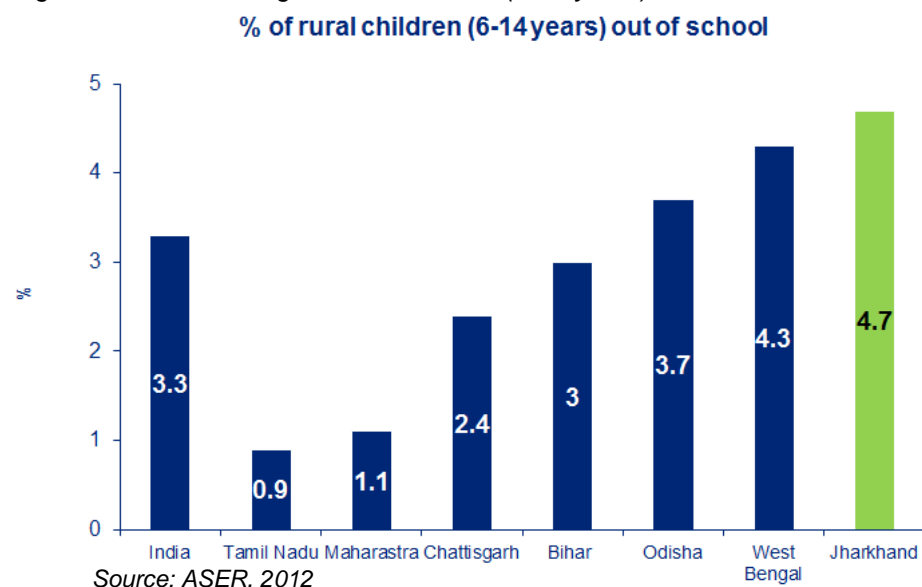
Figure 3.12– Literacy rate in Jharkhand



Female literacy rate at 56.21% is still much lower than the all India female literacy rate of 65.46% and much lower than the Jharkhand male literacy rate of 78.45%²⁶. In some of the districts like West Singhbhum, Koderma, Giridih, Deoghar, Jamtara and Dumka the gender gap in literacy is more than 25%. Difference in literacy levels has also been observed between urban and rural areas. The literacy level in urban area is 83.30% which marginally lower than the all India average, however literacy level in rural areas is 62.40% which is much lower than the all India average.

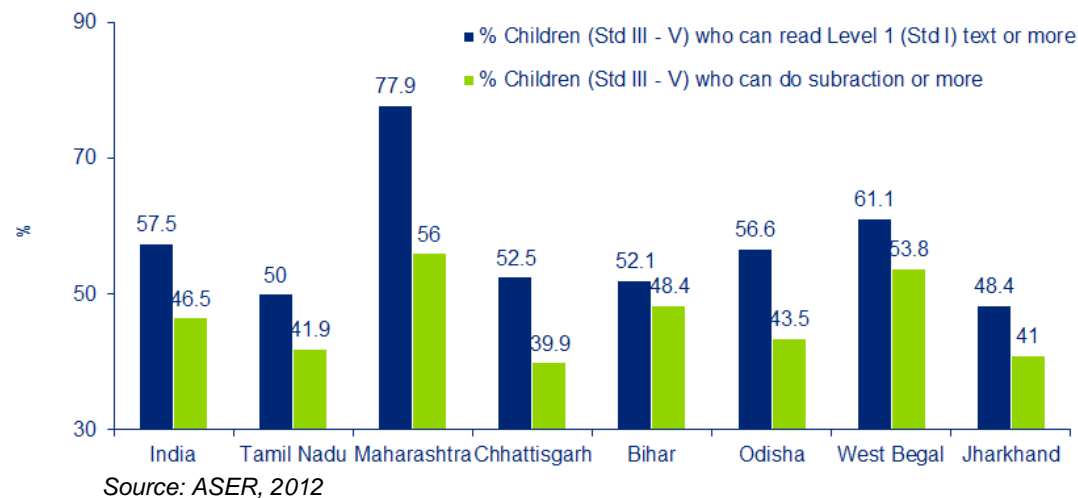
As per the Annual Status of Education Report 2012 (ASER), Pratham about 4.7% of the rural children in the age group of 6-14 years in Jharkhand are out of school, which is higher than the national average.

Figure 3.13– Percentage of rural children (6-14 years) out of school



Also as per the same report, only 48.4% & 41.0% of children studying in standard III – V in rural areas can read Level I (standard I) text or more and do simple arithmetic like subtraction or more respectively. This is an indicator of poor quality of education delivery in rural Jharkhand.

Figure 3.14– Indicator of quality of education imparted to rural children



²⁶ Census of India, 2011

As highlighted in the figure below, significant drop out rates are being observed between primary and upper primary/secondary. Also dropout rates are high after school education, resulting in very low enrolments in higher education.

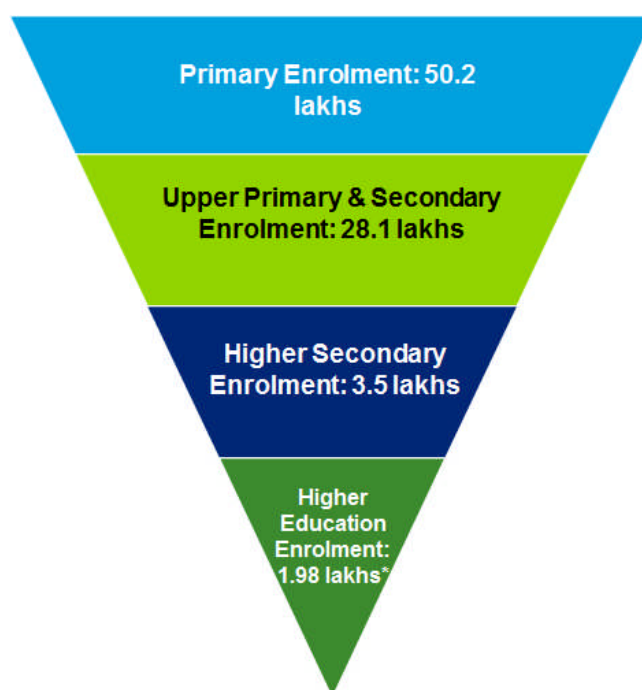
Table 3.18– Primary and upper primary enrolments

Enrolment	Primary	Upper Primary
% Enrolment in Government Management Schools	83.16	77.87
% Enrolment in Private Management Schools	11.45	17.13
% Girls Enrolment	49.23	49.10

Source: Flash Statistics, 2010-11

It can be observed from the above table that the percentage enrolment in privately managed schools is more in upper primary levels vis-à-vis primary level.

Figure 3.15– Enrolment details in Jharkhand



Source: DISE, SEMIS, Statistics of Higher & Technical Education

* Excluding enrollment in open universities

Higher Education

Jharkhand is still lagging behind other Indian states in terms of spread and intake capacity of various higher educational streams. As highlighted in the table below, the state has only 16 Engineering/ Architecture institutes with total annual intake capacity of about 6.4 thousand students across streams. In medical education, the state has only 3 institutes with intake capacity of 190 students.

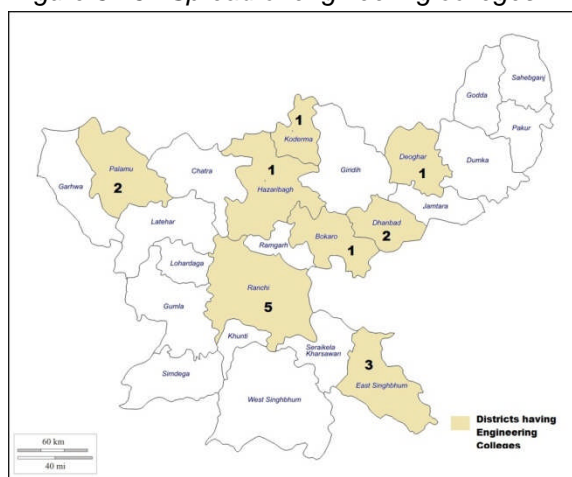
Table 3.19– Higher & technical education infrastructure in Jharkhand

Program	Number of Institutions	Intake Capacity
Architecture & Engineering/ Technology	16	6367
Hotel Management	2	210
Management	13	1780
MCA	4	300
Medical	3	190
Pharmacy	2	192
B.Ed./ M.Ed.	116	10510

Source: AICTE, MCI, NCTE

Spread of educational institutions in the state is also a major barrier in access to higher and technical education. Most of the educational institutes are located in industrial centres of Ranchi, East Singhbhum, Bokaro and Dhanbad. For example only 8 districts in the state, as highlighted in the figure alongside have engineering colleges. As it is evident from the figure, most of the engineering institutions are concentrated in the industrialized districts of Ranchi, East Singhbhum, Dhanbad and Bokaro. There are very few institutions in the western and north-eastern part of the state.

Figure 3.16– Spread of engineering colleges in Jharkhand



Source: AICTE, Deloitte Analysis

Government Supported Vocational Training

Currently Jharkhand has 20 Government ITIs and 25 Polytechnics. In addition to the above, there are 157 private ITCs also. Total annual intake capacity is about 44,400 as highlighted in the table below.

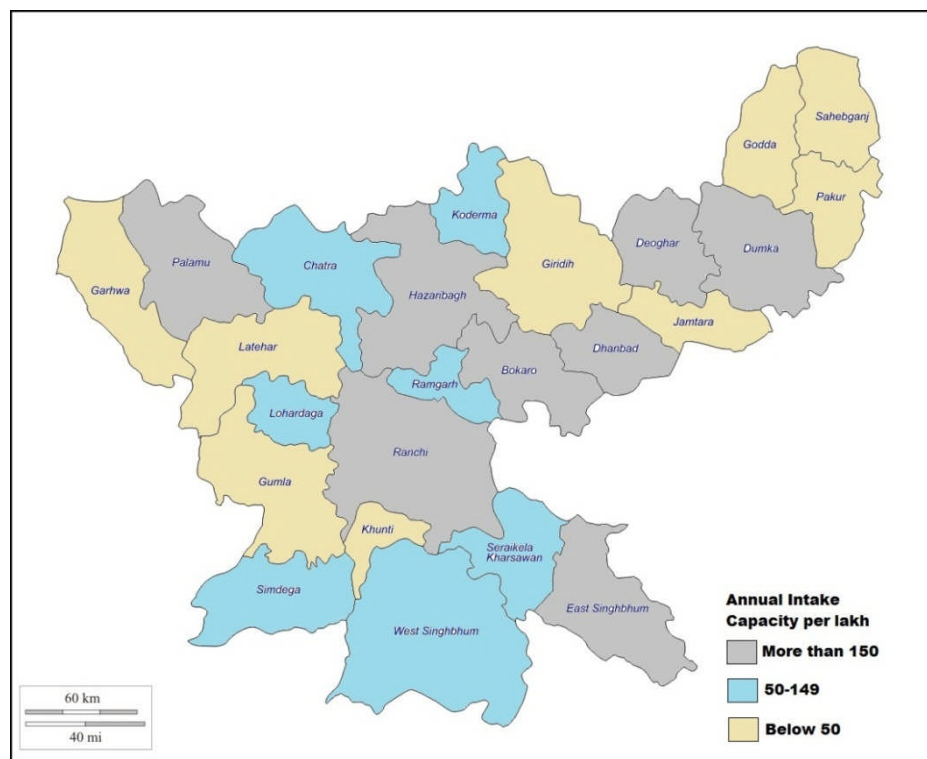
Table 3.20– Vocational training infrastructure in Jharkhand

Program	Number of Institutions	Intake Capacity
ITI (NCVT)	20	4672
ITC	157	34712
Polytechnic	25	5080

Source: Directorate of Employment and Training, Jharkhand & Department of Science & Technology, Jharkhand

However, with 85% of the intake capacity concentrated in only 8 districts namely East Singhbhum, Ranchi, Bokaro, Dhanbad, Hazaribagh, Deoghar, Dumka and Palamu, access to vocational training and education is still a challenge for a large population of the state. Some of the western and north eastern districts like Garhwa, Latehar, Gumla, Godda, Sahebganj and Pakur have very limited number of vocational training institutes. The figure below highlights the spread of vocational training institutes in the state.

Figure 3.17– District level annual intake capacity for vocation training per lakh of population



Source: Deloitte Analysis

It is worth noting that capacity utilization of the Government ITIs is only about 54% on account of presence of trades like Plumber, Carpenter & Stenographer which are less popular among the aspirants and mostly remain vacant²⁷ and vacancy of technical manpower in the ITIs. However the capacity utilization of private ITCs is much higher at 84% on account of 92% of the intake capacity being in popular trades such as Electrical, Fitter and Mechanic (Diesel).

Private Sector Supported Vocational Training in the State:

Apart from the government supported vocational training infrastructure in the state of Jharkhand, it has a limited number of private training providers. Private training providers are primarily NSDC partners or partners under various skill development schemes. An indicative list is highlighted in the figure table below:

²⁷ Department of Planning and Development, Jharkhand

Figure 3.18– Private sector training providers in Jharkhand

	Training Providers	Locations	Trades
NSDC Partners	Gloybsyn, ISDC, Calance	<ul style="list-style-type: none"> Ramgarh Ranchi Chatra 	<ul style="list-style-type: none"> Security Food Processing Biometrics
Swarnjayanti Gram Swarozgar Yojana	A4e, Don Bosco, Career Launcher, OCFIT, Prayas, Premier Shields Pvt. Ltd., NIS Sparta, Cap Foundation, Future Learnings, Institute of Computer Accountants, RSMIT	<ul style="list-style-type: none"> Bokaro Hazaribagh Ramgarh Dumka Gumla Ranchi Chatra East Singhbhum Dhanbad 	<ul style="list-style-type: none"> Retail Hospitality Automobile Security Guards Facility Management IT-ITES, Basic Computers Textiles Food Processing

A district level analysis of presence of some of the recognized private sector training providers is highlighted in the table below.

Table 3.21– District level private sector training providers

District	Major Private Sector Training Providers
Bokaro	NIIT, APTECH, IIHT, STS Computer education, CDIT InfoTech, Infinity Academy
Giridih	JTTI, NIIT, Software Study Centre
Deoghar	Brainware Computer Training Centre
Godda	Asia Pacific iLearn
Koderma	NIIT
East Singhbhum	NIIT, APTECH
Dhanbad	NIIT
Hazaribagh	NIIT, APTECH, Jharkhand Motor Training Centre
Ramgarh	NIIT, J S Education & Computer Academy, APTECH
Dumka	NIIT, Micro Point Computers
Jamtara	SayaIntellicall

District	Major Private Sector Training Providers
Ranchi	APTECH, NIIT

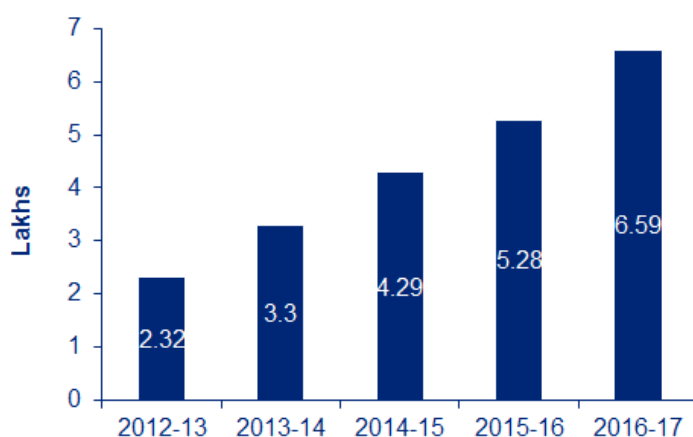
Source: Primary interactions and Secondary research

It can be observed from the above table that most of the private training institutes are in the area of IT-ITES and located mostly in the more developed districts of the State.

Government Initiatives towards Skill Development

The state's skill development target for the 12th Five Year Plan period is to skill 21.78 lakhs persons in the state. Year level targets are presented in the figure below:

Figure 3.19– Annual skill development targets for the 12th Five Year Plan



Source: Department of Planning and Development, Jharkhand

As it is evident from the figure above the annual targets have an increasing trend in the next 5 years. In order to achieve the above target, state government has planned a number of initiatives to improve and expand the vocational training infrastructure in the State.

- Establishment of New ITIs under the following schemes/ programmes/ mode/ recommendation generating additional training capacity of about 15000 per annum
 - PPP mode – The Government has decided to operate all the new ITIs on PPP mode and it is estimated that over 6000 additional seats will be generated after operationalization of the new ITIs.
 - Centrally sponsored scheme – 10 districts of Jharkhand (West Singhbhum, East Singhbhum, Lohardaga, Gumla, Latehar, Palamu, Garhwa, Hazaribagh, Chatra & Bokaro) have been selected for establishment of one ITI in each district. This will result in additional capacity of around 1800 seats per annum
 - Modular Skill Development Programme – 12 new ITIs are being constructed in 6 districts of the state by the Welfare Department and will be operated by Department of Labour, Employment and Training. This will further generate additional capacity of 2400 seats per annum
 - Recommendations of 13th finance commission – 20 new ITIs are to be established as per the recommendations of 13th finance commission with an approximate seating capacity of around 5000 seats per annum.
- Centrally Sponsored Skill Development Initiatives–For the implementation of this scheme, Jharkhand Skill Development Initiative Scheme Society has been registered. Under this scheme 72 registered Vocational Training Providers (VTPs) have been registered in the State. It is targeted to impart skill development training to about 70000 persons per annum under the scheme

- Setting up of Instructor's Training Institute – It has been proposed to establish an Instructor Training Institute in collaboration with Jindal Steel & Power Limited.
- Infrastructure enhancement of the ITIs – The infrastructure of the currently operating ITIs is being modernized by equipping them with modern machines and computer labs. All the ITIs and field offices are being networked and respective websites are being developed.
- Up-gradation of ITIs into Centre of Excellence – Under the Centrally Sponsored Scheme ITIs at Dhanbad, Sahebganj and Ranchi has been established as Centre of Excellence in "IT" and "Electrical" sectors.
- Introduce Management Information System in all ITIs – Under this scheme Directorate of Employment and Training is being connected to all the ITIs and field officers for better administration and monitoring of training. Website development of all the ITIs is also being undertaken.

Skill Development and Training Programmes of Central Government

Skill development has emerged as a national priority for the central government. In addition to the state government, many of the central ministries/ departments have also taken initiatives in skill development. Some of the Central Government training schemes which are being implemented in the state are presented in the table below:

Table 3.22– Government sponsored skill development schemes

Ministry/ Department	Schemes/ Programmes/ Institutions	Key Highlights
Ministry of Agriculture	Skill development for agriculture and allied activities through Agriculture Technology Management Agency (ATMA) and State Agricultural Management and Extension Training Institute (SAMETI)	Approximately 4000 farmers have been trained in Jharkhand under this scheme.
Ministry of Food Processing Industries	Entrepreneurship Development Programme	Programmes for development of human resources in food processing, testing, quality management etc.
Ministry of Labour& Employment	Skill Development Initiative Scheme	Currently 72 registered vocational training providers in the state. Target to provide training to 70,000 per annum
Ministry of Textiles	Integrated Skill Development Scheme for Textile and Apparel Sector	Central Silk Board (Sericulture) and IL&FS Cluster Development Initiative (Handlooms & Handicrafts) have been identified as implementing agencies
Ministry of HUPA	STEP UP under SwarnaJayantiShahariRozgarYojana	Total of 2485 persons trained under this scheme
Ministry of MSME	Skill development initiatives of DC-MSME implemented through MSME Development Institutes	About 9000 persons trained in 2010-11
Ministry of Rural Development	Swarnjayanti Gram Swarozgar Yojana (SGSY)	Focus is on the SC/ST, Women and disabled poor
Ministry of Tribal Affaires	Establishment of Vocational Training Centres in Tribal area. 100% central assistance is provided to State/ UT/	Concentrating on the tribal districts of Western Jharkhand

Ministry/ Department	Schemes/ Programmes/ Institutions	Key Highlights
	NGO for setting up of Vocational Training Centres.	

It is also been observed that the state of Jharkhand has not been able to efficiently utilize the funds allocated under the various central government schemes. For example, of the total funds allocated by Ministry of HUPA's for the SwarnaJayantiShahariRozgarYojana, cumulatively only 26.37% was spend under the various head till 2011. This is significantly lower as compared to other state such as Kerala (92.09%), Himachal Pradesh (95.27%), Andhra Pradesh (84.83%), Haryana (80.57%) etc. Also number of persons trained under the STEP-UP was much lower than as compared to other states.²⁸

3.5 Estimation of Skill Gap

Employment Profile

The work participation rate of Jharkhand was 37.5% which is lower than the national average of 39.1%²⁹. Total workforce is expected to increase to 132.28 lakhs in 2012.

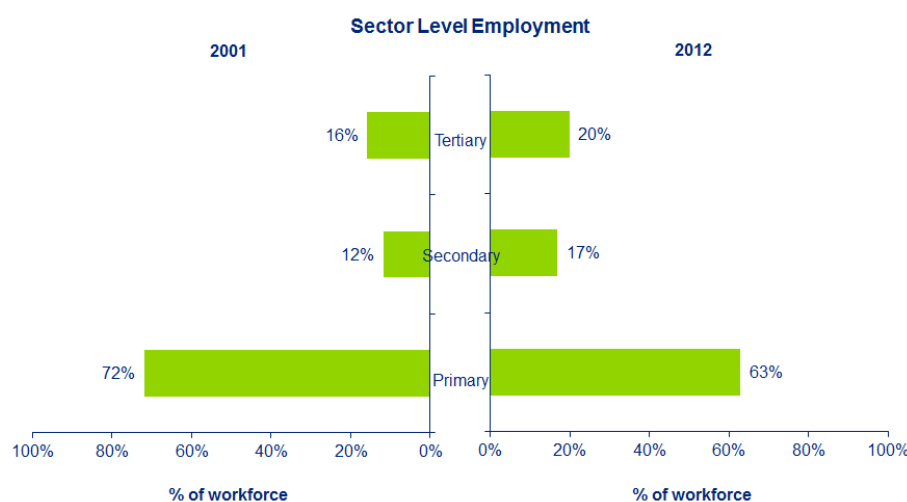
Table 3.23– Employment profile

Employment Profile (In Lakhs)	2001 ³⁰	2012 ³¹
Total Population	269.46	336.38
Working Age Population	146.25	207.87
Labour Force	105.80	140.90
Workforce	99.79	132.28

Source: Deloitte Analysis

About 72% of the workers in the state were engaged in primary sector in 2001, which is estimated to decrease to about 63% in 2012 on account of increase in opportunities in secondary and tertiary sectors³²

Figure 3.20– Sector level employment



Source: Deloitte Analysis

²⁸ State wise Progress, Ministry of HUPA

²⁹ Census of India, 2001

³⁰ Census of 2001

³¹ Deloitte Analysis

³² Deloitte Analysis

Manpower Supply

The population of Jharkhand in 2011 was about 329.66 lakhs which is expected to increase to about 372.06 lakhs in 2017 and about 411.52 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 46.07 lakhs.

Table 3.24– Estimated workforce

Estimated Work Force			
Year	2011	2017	2022
Population	3,29,66,238	3,72,05,786	4,11,52,358
Working age population	2,03,72,459	2,37,78,298	2,71,69,808
Available Labour Force	1,38,09,106	1,61,17,693	1,84,16,567
Projected Work Force	1,28,60,874	1,51,79,052	1,72,42,899
Incremental manpower supply (2012-22)		46,07,461	

Source: Deloitte Analysis

Availability of working age population (age group of 15-59) is estimated to grow from 203.72 lakhs in 2011 to 271.69 lakhs by 2022. In the period 2012-22, it estimated that incremental manpower supply will be about 46.07 lakhs. Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions. It can be observed from the table below that about more than 75% of the supply of manpower will be in minimally skilled category. Rest about 25% of the supply will in skilled and semi-skilled category.

Figure 3.21– Projected workforce - 2022

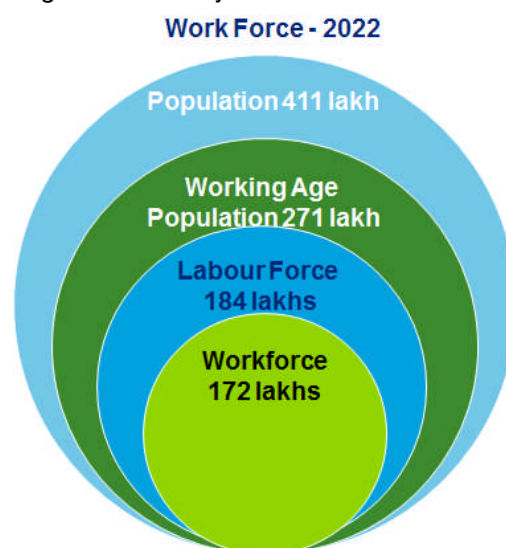


Table 3.25– Estimated workforce as per skill levels

Source: Deloitte Analysis

Estimated Workforce as per Skill Levels			
In Lakhs	2012-17	2017-22	Total
Skilled	2.61	2.88	5.50
Semi-Skilled	3.05	2.44	5.49
Minimally skilled	17.42	17.66	35.08

Source: Deloitte Analysis

Supply of skilled and semi-skilled manpower will be mostly through the educational and vocational training institutes in the state. List of technical and vocational training institutes and their current intake capacity is presented below:

Table 3.26– Educational infrastructure in the state

Program	Number of Institutions	Intake Capacity
Architecture & Engineering/ Technology	16	6367
Hotel Management	2	210
Management	13	1780
MCA	4	300
Medical	3	190
Pharmacy	2	192
B.Ed./ M.Ed.	116	10510
ITI (NCVT)	20	4672
ITC	157	34712
Polytechnic	25	5080

Source: AICTE, MCI, NCTE, Directorate of Employment and Training & Department of Science and Technology, Jharkhand

Incremental Manpower Requirements

Manpower requirement in the state of Jharkhand is expected to be driven by various sectors like primary including agriculture & mining, secondary including manufacturing and building & construction and tertiary including travel trade & real estate services.

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 43.88 lakhs including 32.52 lakhs in organized sectors and 11.35 lakhs in unorganized sectors.

Approximately 25% of the incremental manpower demand is expected to come from unorganized sector including agriculture and allied activities. The manpower demand in the organized sector is expected to be primarily driven by building & construction, food processing and travel trade.

The secondary sector which contributes about 28 % of the GDDP is expected to continue its growth as more than 50% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by food processing industry, building & construction, fabricated metal & structural metal products

Tertiary sector which contributes about 47% of the GDDP is anticipated to continue its growth driven by travel trade and real estate & business services. Growth in construction activities is expected to have a positive effect on the demand of real estate services.

Table 3.27– Incremental manpower demand in Jharkhand in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ³³	160	533	4639	117	390	3392
Mining and Quarrying	2857	5714	20000	2134	4267	14935
Total (I)	3,017	6,248	24,639	2,251	4,657	18,327
Secondary Sector						
Automobile & Auto Components	5435	6988	3106	4956	6372	2832
Textiles & Garments	1486	2973	25266	1355	2711	23041
Leather & Leather Goods	49	49	887	45	45	809
Chemical & Pharmaceuticals	1479	2465	986	1349	2248	899
Building & Construction	41032	102581	266709	37479	93698	243616
Food Processing, Cold Chain & Refrigeration	12856	38569	205700	11724	35171	187579
Handlooms & Handicrafts	2369	2369	42636	2160	2160	38880
Fabricated Metal/ Structural Metal Products	11279	33836	11279	10285	30856	10285
Non-Metallic Mineral Products & Basic Iron & Steel	10303	30908	10303	9395	28185	9395
Electricity Gas & Water Supply	525	735	840	386	540	617
Other Manufacturing	4407	7345	17628	4019	6698	16075
Total (II)	91,220	2,28,817	5,85,340	83,153	2,08,684	5,34,029
Tertiary Sector						
IT/ ITES-BPO services	1281	591	99	3873	1788	298
Tourism Hospitality and Travel Trade	145366	145366	72683	120990	120990	60495
Transportation & Logistics/ warehousing/ packaging	6385	12769	44692	5207	10414	36448
Organized Retail	126	278	101	391	861	313
Real Estate Services	41360	41360	82719	52203	52203	104407
Media & Entertainment	23604	21243	2360	21872	19685	2187
Healthcare Services	4272	31500	NA	650	4621	NA
Banking Insurance & Finance	40438	4757	2379	45545	5358	2679
Education/ Skill Development Services	19755	20769	NA	18097	4671	NA
Total (III)	2,82,586	2,78,634	2,05,033	2,68,828	2,20,591	2,06,828
Grand Total (I+II+III)	3,76,823	5,13,698	8,15,012	3,54,232	4,33,932	7,59,183
Total Incremental Demand	32,52,881					

Source: Deloitte Analysis

³³ Employment in organized agriculture activities
 “ – “ Negligible Demand (<10)

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 11.35 lakhs in the next 10 years.

Table 3.28– Incremental manpower demand in Jharkhand in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	475032	347371
Drivers	53700	62846
Domestic help	40281	37498
Security Guards	22970	21383
Others	24359	49571
Total	616343	518669
Total Incremental Demand – Unorganized Sectors	11,35,012	

Source: Deloitte Analysis

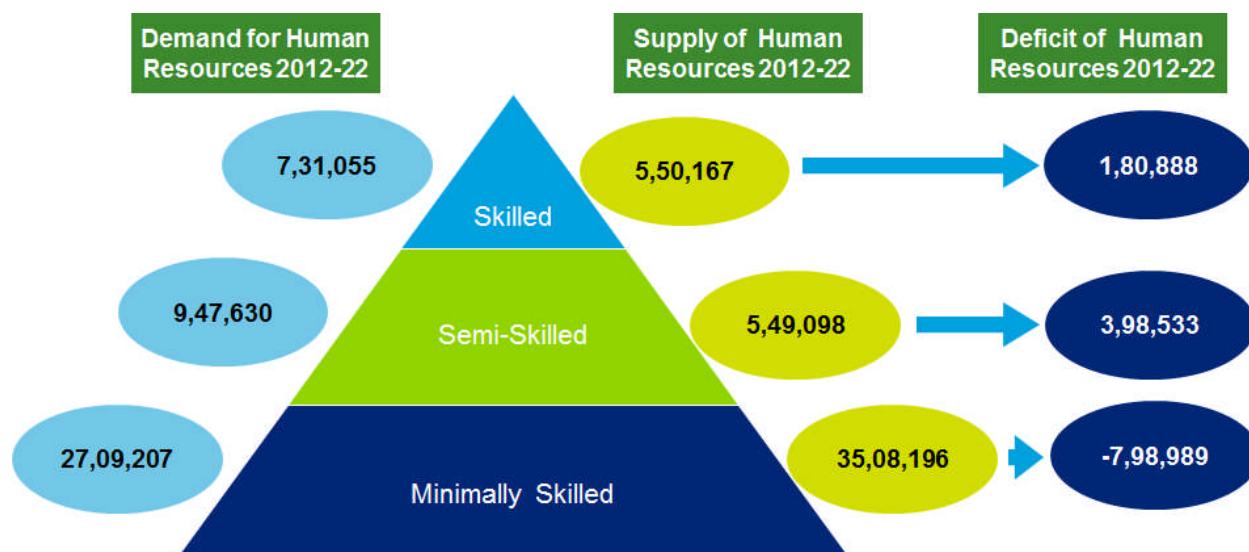
The top 10 sectors as per the incremental manpower demand (organized and unorganized sectors) in the next 10 years are listed below:

- **Agriculture and Allied Activities** –Agriculture and allied activities is the largest employer and is expected to generate about 19% of the incremental manpower demand in the state. However, majority of the demand will be in minimally skilled category.
- **Building and Construction** – In light of increase in urbanization, industrialization and development of infrastructure in the state, building and construction is expected to generate about 18% of the incremental demand.
- **Tourism Hospitality and Travel Trade** – Tourism, hospitality and travel trade is the largest contributor to the tertiary sector and expected to generate about 15% of the incremental manpower demand
- **Food Processing**–Food processing is the highest contributor to the MSME sector in the state and is expected to generate about 11% of the incremental manpower demand in the state.
- **Real Estate Services**–Urbanization and growth in construction activities is expected to have a positive effect on the demand of real estate services which is expected to generate about 9% of the incremental manpower demand in the state
- **Unorganized Sectors**–Demand of drivers, domestic help, security guards and other unorganized services is expected to generate about 7% of the incremental manpower demand.
- **Transportation and Logistics**–Jharkhand being one of the largest producers of minerals in India, transportation through rail and roadways is of significant importance. The sector is expected to grow further and generate about 3% of the incremental manpower demand in the next 10 years.
- **Fabricated Metal and Structural Engineering Products**–Most of the ancillary units in the state are engaged in metal fabrication and manufacturing of structural engineering products. With further industrialization and increase in production capacity of existing industries, the sector is expected to grow and generate about 2% of the incremental manpower demand in the state.
- **Banking Insurance and Finance**–The network of banks and insurance companies is expected to increase in the rural areas and is expected to generate about 2% of the incremental demand in the next 10 years.
- **Non Metallic Mineral Products & Basic Iron and Steel**–Presence of mines and proposed capacity expansion of iron and steel plants in the state is expected to generate about 2% of the incremental manpower demand in the state
- **Media & Entertainment**–It is one of the emerging sectors in the state and expected to generate about 2% of the incremental manpower demand in the state.

Incremental Manpower Gap

During the period 2012-22 the demand supply gap of the state (across all sectors mentioned above) is expected to be about (-) 2.19 lakhs³⁴, i.e. the state will have excess of manpower supply. However as highlighted in the figure below there will be manpower deficit in skilled and minimally skilled category.

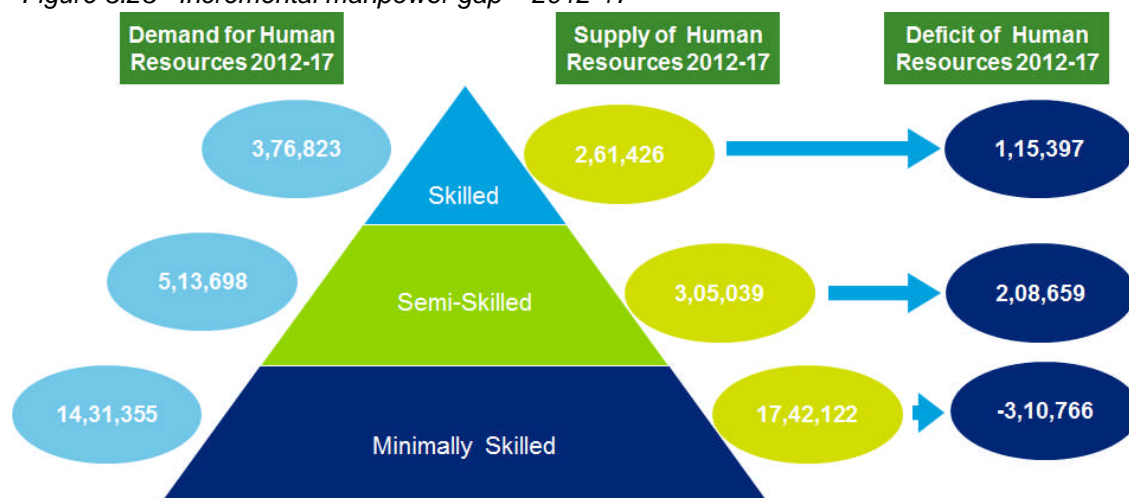
Figure 3.22– Incremental manpower gap – 2012-22



Source: Deloitte Analysis

As per the analysis presented above, the state needs to additionally skill about 5.8 lakh persons over the next 10 years to meet the demand of skilled manpower. If we examine the incremental manpower gap for the period 2012-17, the incremental demand supply gap is only about (-) 0.13 lakhs. The incremental deficit of manpower in skilled and semi-skilled category is about 3.24 lakhs, which can be met by skilling the excess manpower in the minimally skilled category.

Figure 3.23– Incremental manpower gap – 2012-17



Source: Deloitte Analysis

³⁴The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Qualitative Skill Gaps

The qualitative skill gaps of the high incremental demand sectors as per the analysis highlighted in the above section are presented in the table below:

Table 3.29– Qualitative skill gaps in high incremental demand sectors

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills

Sector	Level	Skill Gaps
		- Lack of networking skills
Transportation and Logistics	Store Manager	- Inadequate knowledge of procedures, paper work for interstate movement, taxation related aspects - Inadequate ability to ensure training of personnel employed with them
	Supervisor	- Lack of knowledge of best warehousing practices - Inadequate knowledge of new technologies such as RFID, SCM techniques, inventory management - Insufficient knowledge of taxation policies
	Drivers/ Helpers	- Lack of formal training in driving - Inadequate knowledge of safety and first aid - Insufficient knowledge of handling high capacity trucks and safe driving practices
Engineering Units/ Iron & Steel	Supervisor	- Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	- Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	- Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Banking, Financial Services & Finance	Field Executive/ Agent	- Poor knowledge of banking products - Poor communication skills - Poor selling skills

Source: Primary Interactions

District Level priority sectors

District level incremental manpower requirements estimation (detailed in the following chapters) indicates that the district of Ranchi, Dhanbad, East Singhbhum, Hazaribagh and West Singhbhum account for more than 50% of the manpower requirement. Table below presents the district level priority sectors. It can be observed from the table that the

- Incremental demand in districts of Ranchi, Dhanbad, East Singhbhum, Hazaribagh, West Singhbhum and Bokaro is expected to be primarily be generated in secondary and tertiary sector.
- Incremental demand in the districts like Godda, Garhwa, Gumla, Chatra, Sahebganj and Pakur is expected to be primarily generated in the primary sector.
- Incremental demand in the mining sector is expected to be primarily be generated in the districts of Dhanbad, Hazaribagh, Godda, Sahebganj and Pakur
- Incremental demand in auto & auto components sector is expected to be primarily generated in the districts of East Singhbhum and Bokaro
- Incremental demand in upcoming sectors like IT-ITES, organized retail and media & communication is expected to be primarily generated in urbanized districts like Ranchi, Dhanbad, East Singhbhum and Bokaro.

Table 3.30– District level priority sectors

District	Manpower Requirement (2012-22)	Agriculture & Allied Activities	Mining	Auto & Auto Components	Textiles	Leather & Leather Goods	Chemical & Pharma	Building & Construction	Food Processing	Fabricated Metal/Structural Metal Products	Handlooms & Handicrafts	Mineral Based Products	Electricity, Gas & Water Supply	Engineering Products	Non Metallic Products	Basic Iron & Steel	IT/ITES	Travel & Trade	Transportation & Logistics	Organized Retail	Real Estate Services	Media & Communications	Health Care	Banking & Finance	Education & Skill Development	Un Organized Sectors
Ranchi ³⁵	5,98,990	√				√		√		√	√	√	√				√	√	√	√	√	√	√	√	√	√
Dhanbad	5,69,107		√		√	√	√	√	√			√	√	√				√	√	√	√	√	√	√		√
East Singhbhum	4,80,993			√		√	√	√	√	√				√		√	√	√	√		√	√	√	√	√	√
Hazaribagh ³⁶	3,88,704	√	√		√			√			√	√	√		√			√	√		√	√	√	√	√	√
West Singhbhum ³⁷	3,49,392	√					√			√	√								√			√	√	√		√
Giridih	2,85,045	√			√										√								√		√	
Palamu ³⁸	2,82,747	√				√					√								√				√		√	
Bokaro	2,79,243			√		√	√	√					√		√	√	√	√	√	√	√	√	√	√	√	√
Dumka ³⁹	2,14,219	√				√			√		√															
Deoghar	1,62,324								√						√										√	
Godda	1,40,038	√	√																							
Garhwa	1,34,343	√			√																				√	
Gumla ⁴⁰	1,25,240																									
Chatra	1,24,361	√					√																			
Sahebganj	1,06,340		√						√																√	
Pakur	91,968		√						√																	
Koderma	80,671														√											
Lohardaga	39,078					√																				

Source: Deloitte Analysis

³⁵ Ranchi includes Khunti³⁶ Hazaribagh includes Ramgarh³⁷ West Singhbhum includes Saraikela-Kharsawan³⁸ Palamu includes Latehar³⁹ Dumka includes Jamtara⁴⁰ Gumla includes Simdega

Migration Situation in the State

Jharkhand is a net exporter of people. As per the National Sample Survey Organization, 64th Round, Report Number 533 the migration situation in the state is presented in the table below.

Table 3.31– Migration in Jharkhand

Migration	
In-Migration (00)	3913
Out-Migration to other State (00)	8129
Out-Migration to Abroad (00)	174
Net Migration	-4390
Net Migration Rate (per 1000 of population)	-18
Domestic Net Migration Rate (per 1000 of population)	-17

Source: NSSO, 64th Round, Report Number 533

Male migration rate is far lower than female migration rate, in both rural and urban areas. In Jharkhand rural nearly 30.8% of the females are migrants while the male migration is only about 1%. In the urban areas male migration rate is about 17.8% while female migration is about 34.1%. Around 44.3% of the male migrant population migrates for employment related reasons and 12.1% migrate for education related reasons while about 91.3% of the female migrant population migrates due to marriage reasons⁴¹.

As per the World Bank Report “Jharkhand – Addressing the Challenges of Inclusive Development 2007” the rate of migration has increased over the last decade. The report further states that proportion of households reporting migration has gone up sharply from 1.5% to 5.1% as per a baseline survey conducted. The rate of migration has increased for both poor & non-poor, but the rate is about twice as high for the non-poor group compared to the poor. The growing role of migration can also be seen from considerable weight of households (about 6%) with dependence on income from migration.

3.6 Aspirations of Youth in Jharkhand

Aspirations of the youth were captured through Focus Group Discussions held in each district of the State. It is important to understand the career aspirations of the youth in light of the manpower requirements of the industry, so that suitable initiatives can be undertaken to meet both.

Economic and Academic Background - Vocational training is perceived to be suitable for academically and economically poor students. Students from economically weaker sections of the society mostly opt for vocational courses over higher education programmes as higher education is considered to be expensive and a significant investment. Also students who are not able to get admissions into higher education due to poor academic background opt for vocational courses.

Preference for vocational courses offered by private ITCs - Youth in most of the districts of Jharkhand preferred to opt for courses offered by private ITCs as compared to government ITIs. Better infrastructural & placement facilities and availability of seats in the preferred streams (like fitter, electrician, and mechanic) were cited as the basic reasons for such a preference.

Preference of NCVT Course as compared to SCVT Course – Students in the ITIs preferred to take up courses which have NCVT accreditation as they are perceived to have a higher probability for placement. Also students have a perception that NCVT accredited course have a wider recognition outside the state as compared with SCVT Courses.

⁴¹ Migration in India NSSO 64th Round

Preference for Government Jobs over Private – Most of the youth preferred employment with government organizations like Railways and Public Sector Undertakings like SAIL, DVC etc. The most important reason for such a preference was job security and stable career. Students from the vocational training institutes invested a lot of time in preparing for the entrance examinations conducted for vacancies in Railways, PSUs etc.

Vocationally trained students prefer to work in their own districts – Most of the youth who have received some form of vocational training (ITI, ITC etc.) prefer employment opportunities in their own district. Preference was driven by factors such as cost saving due to comparatively less expenses in fooding and lodging, familiarity with the place and presence of relatives.

Need for Entrepreneurship Development Programmes -Most of the ITI/ ITC students prefer to get a job after completion of course. However some of the students aspire to be self-employed. They suggested the need to undergo entrepreneurship development programmes to increase their awareness on operational and financial support that could be received for state agencies for self-employment.

Women lack interest in vocational training – Most of the women cited lack of vocational training institutes dedicated to women in vicinity as a major reason for not opting for vocational training. Also as most of the districts do not provide job opportunities for women after completion of vocational training, women prefer not opt for vocational training.

Based on discussions with the youth in Jharkhand, the sectoral aspirations are highlighted in the table below:

Table 3.32– Sector level youth aspirations in Jharkhand

Sector	Aspiration	Key Highlights
Food Processing	High	<ul style="list-style-type: none"> Food processing sector is one of the fastest growing sector in the state Food processing in one of the preferred sectors for employment for Women
Banking and Finance	High	<ul style="list-style-type: none"> Banking and Finance is perceived as a high end sector Urban youth and women have a preference for this sector
Engineering and Fabrication	High	<ul style="list-style-type: none"> Presence of large number of ancillary units in the state creates huge employment opportunities in this sector Youth undertaking courses in fitter trade have a preference for this sector
Textile and Garments	High	<ul style="list-style-type: none"> Sericulture is major activity in some of the districts of the state With increasing government support to this sector, employment opportunities in the district is increasing Youth in the districts engaged in sericulture aspire to get involved in the sector
Iron and Steel	High	<ul style="list-style-type: none"> The state has two of the largest steel plants in India namely Tata Steel and Bokaro Steel Plant Youths in the district of East Singhbhum, Bokaro and adjoining districts aspire to get

Sector	Aspiration	Key Highlights
		employed in the sector
Automobile	High	<ul style="list-style-type: none"> ITI/ ITC graduates aspire to get jobs in automobile and auto component industry. It is perceived as a high paying sector with excellent employment opportunities even outside the state Trades directly relevant to the Auto Industry are in high demand among students in the East Singhbhum and adjoining districts.
IT-ITES	High	<ul style="list-style-type: none"> IT-ITES sector is at a nascent stage in the state with opportunities mostly in the districts like Ranchi, Bokaro, Dhanbad and East Singhbhum The Sector is perceived as one offering high end white collar job opportunities Youth in the urban areas are also interested in developing IT skills through courses offered by private training providers
Education and Skill Development	High	<ul style="list-style-type: none"> Youth in the state consider the sector as highly attractive in terms of opportunities to work with the government sector
Healthcare	High	<ul style="list-style-type: none"> Awareness level about the paramedical services is low. Aspirations of the Youth to work in the sector is high
Transportation and Logistics	Medium	<ul style="list-style-type: none"> Youth in the state are aware about the employment opportunities in the sector with increasing industrialization in the state Job opportunities are mostly concentrated in the industrialized districts of the state
Tourism, Hospitality, Travel and Trade	Medium	<ul style="list-style-type: none"> Over all awareness in the state about the opportunities in the sector is moderate Youth in the rural areas perceive it as an opportunity to migrate to the urban centers
Real Estate & Business Services	Medium	<ul style="list-style-type: none"> With increasing urbanization and industrialization in the state, employment opportunities in the sector is increasing. Youth aspire to get into the sector, but awareness level about the kind of opportunities available is low
Media and Communications	Medium	<ul style="list-style-type: none"> Youth especially women aspire to work in the sector However the awareness level about the

Sector	Aspiration	Key Highlights
		sector and job opportunities is low
Electricity Gas & Water Supply	Medium	<ul style="list-style-type: none"> Youth aspire to work in the sector as it presents an opportunity to work with Government/ PSUs However opportunities are localized in few areas
Building and Construction	Low	<ul style="list-style-type: none"> Graduate in the state are not so keen to on working in the industry. It is perceived as a high physically intensive sector and women are especially averse to the sector
Mining	Low	<ul style="list-style-type: none"> Youth are particularly not so keen on the sector with the associated safety and risk hazards However some of the students showed interest in the sector as it offered government jobs
Organized Retail	Low	<ul style="list-style-type: none"> Organized Retail sector is at a nascent stage in the state with opportunities mostly in the districts like Ranchi, Bokaro, Dhanbad and East Singhbhum Youth in the state are not aware about the various employment opportunities offered by the sector
Chemical and Pharmaceuticals	Low	<ul style="list-style-type: none"> Low employment opportunity in the sector is one of the factors resulting in low interest in the sector among the youth in the state.
Handicrafts and Handlooms	Low	<ul style="list-style-type: none"> Youth consider the sector as very lowly remunerative
Leather and Leather Goods	Low	<ul style="list-style-type: none"> Very low interest in the sector as employment opportunities are low

Source: Primary Interactions

Skill Development Attractiveness

The following matrix has been arrived at based on incremental employment opportunities in a sector mapped against the preference of the youth for a career in the respective sector.

Figure 3.24– Skill development attractiveness matrix

Incremental Manpower Demand	High	<ul style="list-style-type: none"> • Building & Construction 	<ul style="list-style-type: none"> • Tourism, Hospitality, Travel & Trade • Real Estate & Business Services • Transportation & Logistics 	<ul style="list-style-type: none"> • Food Processing • Banking & Finance • Engineering Products
	Medium	<ul style="list-style-type: none"> • Mining • Handlooms & Handicrafts 	<ul style="list-style-type: none"> • Media & Communication 	<ul style="list-style-type: none"> • Textiles & Garments • Iron & Steel • Automobile • Healthcare • Education and Skill Development
	Low	<ul style="list-style-type: none"> • Organized Retail • Leather and Leather Goods • Chemical and Pharmaceuticals 	<ul style="list-style-type: none"> • Electricity, Gas & Water Supply 	<ul style="list-style-type: none"> • IT-ITES
		Low	Medium	High

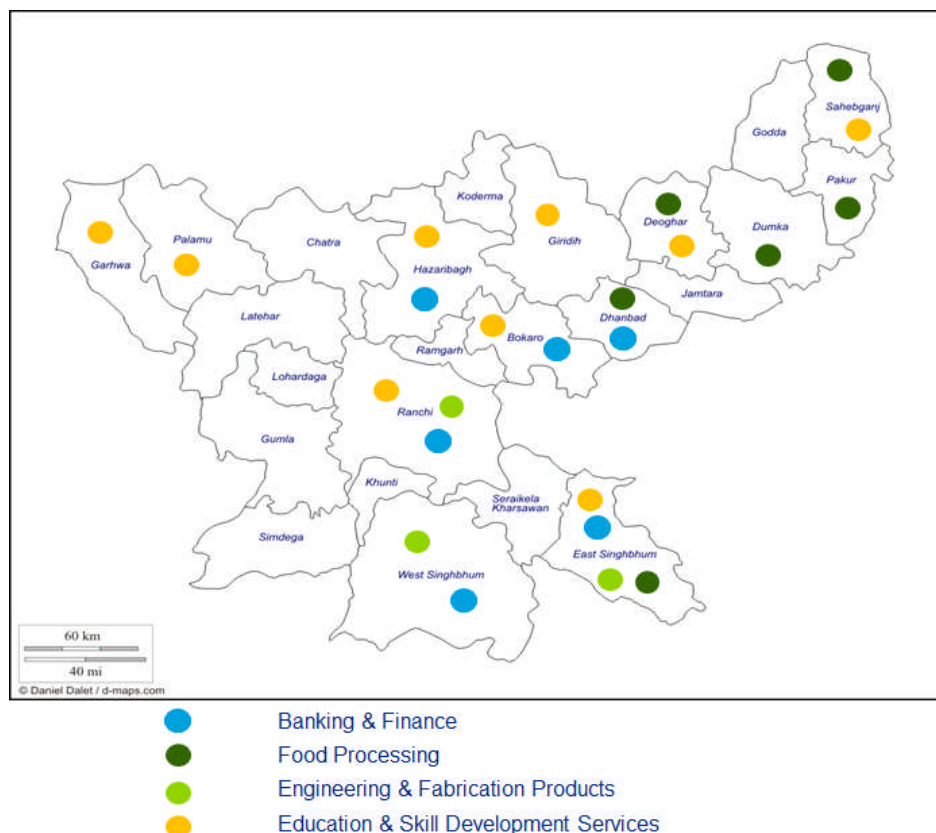
Youth aspirations for sectoral employment

Source: Deloitte Analysis and Primary Interactions

As clearly shown in the matrix above some of the sector like Building & construction and Mining which have sufficient incremental manpower opportunities do not rank high on youth aspirations. However in sectors like IT-ITES where youth are willing to work, the state doesn't offer adequate employment opportunities. Food processing, Banking & Finance and Engineering Products are the sectors with high youth aspiration for employment and also high incremental manpower requirement.

High priority sectors based on the above matrix (high youth aspirations for sectoral employment vis-à-vis high incremental demand) along with the key target districts have been presented in the figure below:

Figure 3.25– High priority sectors



Source: Deloitte Analysis

As it is evident from the figure above:

- Priority districts for food processing are primarily concentrated in the north eastern districts of Deoghar, Dumka, Pakur and Sahebganj.
- Priority districts for Banking and Finance are primarily the urban centres like Ranchi, East Singhbhum, West Singhbhum, Hazaribagh, Bokaro & Dhanbad
- Priority districts for Engineering and Fabrication Products are primarily the industrialized districts such as Ranchi, East Singhbhum and West Singhbhum
- Priority districts for Education and Skill Development Services are spread across the state and include districts like Garhwa, Palamu, Giridih, Deoghar, Sahebganj in addition to the urban centres like Ranchi, East Singhbhum, Bokaro & Hazaribagh

3.7 Challenges in Skill Development in the State

As highlighted above Government of Jharkhand has taken a number of initiatives towards skill development and enhancing the employability of the youth in the state. However Implementation of the initiatives in the state faces with a number of challenges as highlighted below:

- Multiple government departments engaged in education and skill development initiatives in the state – Various state government departments have been implementing centrally funded skill development initiatives in the state. Also the educational and skill development infrastructure in the state is controlled and maintained by several government departments as highlighted below:

Table 3.33– Focal education and skill development departments

Educational & Skill Development Infrastructure	Department, Government of Jharkhand
Schools	Department of HRD
ITIs & ITCs	Department of Labour, Employment & Training
Polytechnics/ Professional Institutions	Department of Science & Technology
Higher Education	Department of HRD

In addition to the above state government has constituted Jharkhand Skill Development Mission in 2009 with Department of Human Resource Development as nodal department. Currently the Mission is headed by a Director level officer of the department. Also for implementing the centrally sponsored Skill Development Initiative, Jharkhand Skill Development Initiative Scheme Society has been constituted in April, 2011 with Department of Labour, Employment and Training as nodal department.

In addition to the above Jharkhand State Livelihood Promotion Society has been formed with the support of UNDP to improve livelihood security and diversification of livelihood through skill development of the poor in 10 selected blocks in 5 districts.

In light of the above there is a need of coordinated efforts between various implementing agencies with a monitoring mechanism for ensuring effective implementation of the training programmes/initiatives.

- Allocation of Funds for Skill Development – Currently Skill development initiatives in the state are being undertaken through the funds available through central schemes and fund allocated by various State Government Departments. The State doesn't allocate separate funds for skill development in the state budget (e.g. in the State budget 2013-14 about Rs. 2000 crores have been allocated to issues like high dropout rate, poor quality of instructors, and out of school children education and Rs. 151 crores for MukhyamantriLaxmiLadliYojana to address health and educational issues of girl children). Also it must be noted that only 26.37% of the total funds allocated to Jharkhand in the period 1997-2011 under SwarnaJayantiShahariRozgarYojana (SJSRY) was spent and only 2485 persons were trained under STEP-UP which is much lower as compared to other states.
- Low capacity utilization of the currently operating ITIs –As highlighted before the current capacity utilization of the ITIs is about 54%. This can be attributed to the following:
 - Presence of trades like Plumber, Carpenter & Stenographer as less popular among the aspirants and mostly remain vacant
 - Lack of technical manpower – Currently instructor vacancy is about 38%.⁴²
 - Poor workshop infrastructure at the ITIs as compared with the private ITCs – The student during the focus group discussion highlighted lack of proper workshop facilities at the ITIs as one of the reasons for lesser number of students opting for courses offered at the ITIs.
- Uneven spread of ITI and ITC training capacity –About 75% of the total ITI and ITC capacity is concentrated in 5 districts (Ranchi, Dhanbad, East Singhbhum, Bokaro and Hazaribagh) only⁴³. Districts like Giridih, Garhwa, Latehar, Sahebganj, Gumla, Pakur, & Lohardaga do not have any private ITCs.

⁴² Department of Planning and Development, Government of Jharkhand

⁴³ Department of Planning and Development, Government of Jharkhand

- No formal mechanism to periodically review and revise curriculum based on industry requirements – With rapid improvements in technology the current engineering based trades courses are losing their relevance and becoming outdated. Hence there is an urgent need to set up a mechanism for regularly updating the curriculum in consultation with the industry.
- Lack of a formal mechanism for capacity development of the faculties – As highlighted above currently about 38% of the faculty positions in the ITIs is vacant. Also during our interactions the faculty cited non-availability of refresher courses for self-development as one of the major barriers in imparting quality training to the students.
- Few placement opportunities for the students studying at the ITIs – The students of the ITIs during the focus group discussion highlighted the fact that the placement opportunities available to them are very few and most of them are preparing for competitive examinations conducted for various job opportunities in Government and PSUs. This can be attributed to lack of placement cells at the ITIs with adequate infrastructure for continuous interaction with industry/ employers.
- Lack of private sector participation in skill development – The state has seen very limited number of private players providing skill development services in the state.
- Poor industry readiness of the students passing out of the vocational training institutes – Poor industry readiness was cited one of the major reasons by the industry players and industry associations for hesitancy in recruiting from the ITIs. The students which are directly recruited from the ITIs lack proper work etiquettes and soft skills required to satisfactorily perform the duties at the work place.

3.8 Recommendations for Skill Development in the State

Recommendations – Government of Jharkhand

1. Set up an institutional structure to effectively coordinate the skill development initiatives at state level
 - Strengthen Jharkhand Skill Development Mission to coordinate state level skill development initiatives– Mission can be headed by a Principal Secretary (Department of Human Resource Development) reporting to the Chief Secretary
 - Set up Skill Development Committees in high demand sectors with proper representation from respective state government department, Sector Skill Council, NSDC and major industry players in the State.

Table 3.34– Focal government department for high demand sectors

High Demand Sectors	Nodal Government Department
Building and Construction	Department of Building Construction
Travel Trade	Department of Tourism
Real Estate Services	Department of Housing
Food Processing	Department of Industries

High Demand Sectors	Nodal Government Department
Transportation & Logistics	Department of Transport
Banking Insurance & Finance	Department of Finance
Education & Skill Development Services	Department of Human Resource Development

- Skill Development Committees may undertake the following activities:
 - The committee can act as the focal centre for training programmes in the respective sectors in the entire state
 - Design and develop training programmes in the state
 - Identify the high demand courses in the respective sectors
 - Undertake updating of curriculum on a regular basis
 - Constitute Divisional/ District level committee for vocational education and training under the chairmanship of Commissioner/ Collector for coordinating skill development efforts at district level
2. Set up a Skill Development Fund for undertaking skill development initiatives at state level. The skill development fund may be financed through the following:
- Separate allocation in budget for skill development
 - Funds available under various Government of India schemes
3. Set up an effective monitoring mechanism to monitor skill development initiatives in the state:
- Constitute a Skill Development Monitoring Committee headed by Chief Secretary to monitor skill initiatives in the State.
 - Skill Development Mission/ Departments to internally monitor skill development initiatives undertaken by them & submit a progress report to the monitoring committee. The annual progress report may monitor the following metrics:

Table 3.35– Indicative annual progress report

Matrices	Units
Students Intake	Numbers
Course level Capacity Utilization	Percentage
Over all Pass-out percentage	Percentage
Student to Instructor ration	Ratio
Placement	Percentage of pass out students placed
Expenditure	Expenditure as percentage of allocated funds

4. Focus on Demand Driven Skill Training Programmes for ensuring higher capacity utilization of the ITIs.
 - Identify obsolete courses (based on capacity utilization and placement figures) at the ITIs by monitoring trade level capacity utilization. The number of seats in the identified less popular trades may be accordingly reduced.
 - Identify high demand courses in consultation with the industry needs and estimated future requirements. The sector level Skill Development Committees may play a significant role in undertaking this activity
5. Capacity Development of the Faculty – The state can partner with state and national institutes for capacity building of the faculties of the ITIs. Some of the suggested institutes for partnership are listed below:

Table 3.36– Suggested partner institutions for capacity building of faculty

Courses	Suggested Partner Institutes for Capacity building of the Faculty
Engineering trades like – Fitter, Turner, Electrician, Machinist etc.	<ul style="list-style-type: none"> • National Institute of Technology, Jamshedpur • Birsa Institute of Technology, Sindri • Birla Institute of Technology, Ranchi
Textile related trades like – Upholstery, Cutting and Sewing, Embroidery & Needle work	<ul style="list-style-type: none"> • National Institute of Fashion Technology, Patna & Kolkata
Food Processing	<ul style="list-style-type: none"> • National Institute of Food Technology Entrepreneurship and Management – Sonapat, Haryana
Hotel, Restaurants & Tourism	<ul style="list-style-type: none"> • National Council for Hotel Management & Catering Technology, Delhi
Mining	<ul style="list-style-type: none"> • Indian School of Mines, Dhanbad
Banking and Finance	<ul style="list-style-type: none"> • Indian Institute of Management, Ranchi • XLRI, Jamshedpur

6. Undertake infrastructure development of the current ITIs:
 - Establish Training Council and Placement Cells at the ITIs with adequate infrastructure for continuous interaction with industry/ employers
 - Establishment of English Language & Computer Labs in all Government Polytechnics and ITIs to improve English and Computer proficiency of the students
7. Expand vocational training infrastructure in the State
 - Focus on districts like Giridih, Garhwa, Latehar, Sahebganj, Gumla, Pakur, & Lohardaga
 - Educational institutions of the Government above high school can be identified as skill development centres in the above districts

8. Partner with NSDC to attract private players to establish training centres in the state through PPP mode:
 - Work closely with NSDC to encourage private sector training providers through PPP mode
 - Encourage private players to open skill development centres in backward districts such as Lohardaga, Gumla, Latehar, and Garhwa.
 - Facilitate tie ups of the private partners with existing ITIs, Polytechnics, colleges, high schools for sharing infrastructure at nominal rates
9. Facilitate improving placement opportunities for the students and increase their industry readiness:
 - Introduce Skill Vouchers - A mechanism allowing youth to secure training from any of the listed institutions in the State. Payments to the institute to be made by the government only after candidates successfully completes the course and is placed
 - Revamp the existing employment exchanges as Human Resource Development Centres on PPP mode - Apart from registration of job seekers and data management the employment exchange can offer following services:
 - i. Off-line or on-line skill assessment test to measure the existing capabilities of job seekers
 - ii. Career counseling and guidance on the basis of assessment report
 - iii. Contact local entrepreneurs to ascertain their manpower need
 - iv. Undertake skill development interventions as per need
 - Fund Finishing Schools – Coordinate with private colleges and industry for establishing finishing schools for final year students. As part of this program industry grade skills can be imparted to final year students to make them industry-ready

Recommendations – NSDC

1. NSDC should promote partnership with private skill development players with focus on the following sectors identified based on future manpower requirements – Building & Construction; Tourism; Hospitality and Travel Trade; Real Estate Services; Food Processing; Metal & Metal Products; Transportation & Logistics; Banking & Finance; Education & Skill Development Services
2. The respective Sector Skill Councils in coordination with industry associations engage in conducting skill assessment and certifications in the above identified sectors.
3. NSDC can play an active role in encouraging the current private partners in the above identified sectors to open centres in the state.
4. NSDC/ SSCs in coordination with State Industry Associations can support SCVT in identifying skill and learning needs and designing curriculum attuned to the needs of the employers and self-employment opportunities

Recommendations – Industry

1. Support setting up of Sector Skill Councils – All key players in each sector should actively support the activities of SSCs in Jharkhand through the following:
 - Partner with educational institutions to support Train the Trainers programme of the SSC
 - Support in providing certification and accreditation of industry skills and prefer candidates with SSC certified certificates while recruitment over others
2. Undertake vocational training as part of its CSR activities – Large private players/ PSEs can adopt vocational training institutes as part of its CSR activities by undertaking the following activities:
 - Upgrade the existing infrastructure
 - Capacity development of the existing faculty
 - Provide apprenticeship to the students in its own facilities
 - Prefer recruitment from the institute to fill up its vacancies

Recommendations – Vocational Training Providers

Vocational training providers can focus on the following sectors, districts and skills in the state for delivering vocational education in the state:

Table 3.37– Focus sectors, districts and skills

Sector	Priority	Key Districts	Key Skills
Food Processing	High	Dhanbad, East Singhbhum, Dumka, Deoghar, Sahebganj, Pakur	Quality Testing, Packaging, Bar coding, Labeling, Lab Technicians, Raw Procurement, Sales and Marketing
Banking and Finance	High	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, West Singhbhum	Sales & marketing of banking and insurance products, retail banking, Financial agents in Insurance & NBFC companies
Education and Skill Development	High	Ranchi, East Singhbhum, Hazaribagh, Giridih, Palamu, Bokaro, Deoghar, Garhwa, Sahebganj	Training skills in the field of soft skills, computer literacy, technical skills. Skills in handling modern pedagogical tools, IT enabled tools etc.
Engineering Products	High	Ranchi, East Singhbhum, West Singhbhum, Dhanbad, Bokaro	Fitter, Welding, Machining, Electrician
Building & Construction	Medium	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, Bokaro	Electricians, Welding, Mason, Carpenters, Supervisors
Tourism, Hospitality Travel & Trade	Medium	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, Bokaro	Front Desk Officer, Food and Beverage, House Keeping, Bell Boys, Travel Agents, Tour Guides
Real Estate & Business Services	Medium	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, Bokaro	Building Maintenance, Facility Management
Transportation and Logistics	Medium	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, West Singhbhum, Palamu, Bokaro	Driver, Maintenance Operator, Crane Operator, Store

Sector	Priority	Key Districts	Key Skills
			Supervisors, Loader, Un-loader, Packaging Supervisor, Technology Officer
Media and Communication	Medium	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, West Singhbhum, Bokaro	Content Developer
Textile & Garments	Medium	Dhanbad, Giridih, Hazaribagh, Garhwa	Weaving, Processing, Maintenance, Quality testing, Cutting & Sewing, Embroidery & Needle work
Basic Iron & Steel	Medium	East Singhbhum, Bokaro	Mason, Welder, Mechanical & Electrical Maintenance, Quality Control Lab Technicians, Operators
Automobile	Medium	East Singhbhum, Bokaro	Welding, Machinist, Electrical and Mechanical Maintenance, Metal Work, Fabrication, Paint Shop Operator
Health Care	Medium	Ranchi, Dhanbad, East Singhbhum, Hazaribagh, West Singhbhum, Giridih, Palamu, Bokaro	Paramedical, Nursing, Dieticians, Physiotherapist
Mining	Low	Dhanbad, Hazaribagh, Godda, Sahebganj, Pakur	Mine blasters, Crane Operators, Mechanical Operators, Mining Machinery Maintenance
Handlooms & Handicrafts	Low	Ranchi, Hazaribagh, West Singhbhum, Palamu, Dumka	Carpentry, Sales and Marketing, Forging
Chemical and Pharmaceuticals	Low	Dhanbad, East Singhbhum, West Singhbhum, Bokaro, Chatra	Chemist, Electrical and Electronics, Testing & Lab Technicians, Process Engineers, R&D Technicians

Sector	Priority	Key Districts	Key Skills
Organized Retail	Low	Ranchi, Dhanbad, Bokaro	Outlet Manager, Store Keeper, Cashiers, Inventory Manager
Electricity, Gas and Water Supply	Low	Ranchi, Dhanbad, Hazaribagh, Bokaro	Mechanical & Electrical Operators, Fitters, Instrumentation Engineers, Civil Engineers
IT-ITES	Low	Ranchi, Bokaro, East Singhbhum,	Database, Java, ERP, Coding, Software Engineers

Source: Deloitte Analysis and Primary Interactions

4. District Level Skill Gap Assessment

4.1 Bokaro

Bokaro district is located in the eastern part of the state and is surrounded by Giridih district in the north, Hazaribagh & Ramgarh districts in the west, Dhanbad district in the east and the state of West Bengal in the south. The district is spread over 288.97 thousand hectares which constitutes about 4% of total geographical area of Jharkhand. Administratively, the district is divided into 2 subdivisions and 9 blocks. The district headquarter is located in Bokaro Steel city.

4.1.1 Demography

Bokaro has a population of 20.61 lakhs as of 2011 of which about 48% reside in urban areas⁴⁴. The urban population of Bokaro is higher in comparison to the state average. The district is densely populated with 716 persons per sq. km. in comparison to the state average of 414⁴⁵. The district has a lower sex ratio than the state.

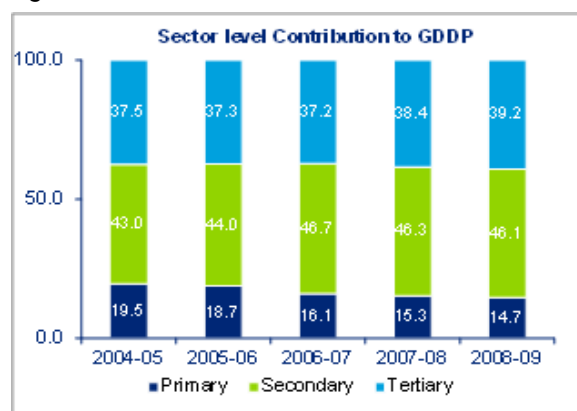
Table 4.1– Demography of Bokaro

Demography	Bokaro	Jharkhand
Population (2011)	20,61,918	3,29,66,238
Decadal Population Growth Rate (2001-11)	15.99%	22.34%
Population density per sq. km (2011)	716	414
Sex Ratio (2011)	916	947
Percentage of Urban Population (2011)	48%	24%
Percentage of SC population (2001)	13.3%	11.8%
Percentage of ST population (2001)	12.3%	26.3%

4.1.2 Economic Profile

Gross District Domestic Product (GDDP) of Bokaro has grown at a higher growth rate (CAGR) of 7.49% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period⁴⁶. Secondary sector contributes about 46% of the GDDP primarily on account of contribution coming from manufacturing activities.

Figure 4.1– Sector level contribution to GDDP



Source: Directorate of Economics & Statistics, Jharkhand

⁴⁴ Census of India, 2011

⁴⁵ Census of India, 2011

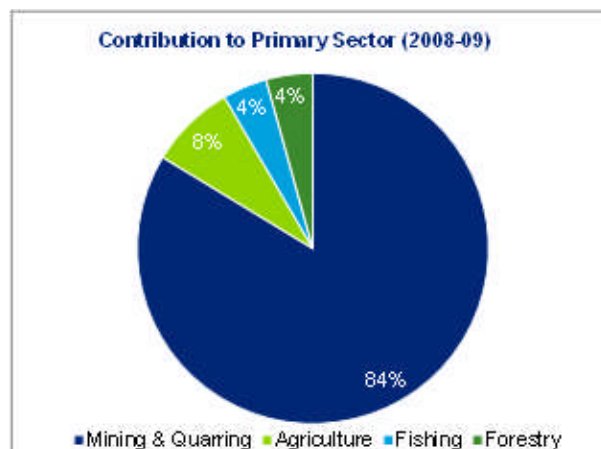
⁴⁶ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 14.7% to the GDDP in 2008-09⁴⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of decrease in contribution of Mining & Quarrying.

Figure 4.2– Composition of primary sector

Mining and Quarrying activities still contribute about 84% of the contribution of primary sector to the GDDP. The district is rich in coal minerals with about 11567.72 MT of coal extracted in 2011-12. Coal India Limited has its subsidiary Central Coalfields Limited (CCL) in Bokaro. Other minerals such as limestone, sand and stone are also found abundantly in the district.



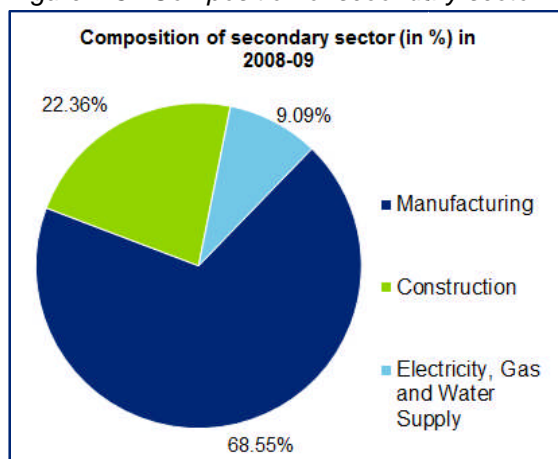
Source: Directorate of Economics & Statistics, Jharkhand

In the district, net cultivated area is only about 14.5% of the geographic area.⁴⁸ Out of net sown area of 46653 hectares, only about 15% is under irrigation⁴⁹. Paddy and maize are two main crops. Wheat, potato and vegetable are also grown in pockets where irrigation facility is available. Pulses, oilseeds and sweet potato are also cultivated in some areas during summer season.

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 46.1%⁵⁰. The sector has registered a CAGR of 9.34% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 68.5% of the contribution of the secondary sector to the GDDP.⁵¹

Figure 4.3– Composition of secondary sector



Source: Directorate of Economics & Statistics, Jharkhand

Manufacturing is the highest contributor to the secondary sector in Bokaro. Bokaro district is one of the most industrialized areas in Jharkhand with Basic Iron and Steel being a major contributor. It also has a number of large and medium sized companies in area of power, construction & chemicals etc. Bokaro industrial area, located in Bokaro steel city, established by Bokaro Industrial Area Development Authority, houses more than 500 small scale industries catering to the large and medium industries in Bokaro

⁴⁷ Directorate of Economics and Statistics, Jharkhand

⁴⁸ Agriculture Technology Management Agency, Bokaro

⁴⁹ Agriculture Technology Management Agency, Bokaro

⁵⁰ Directorate of Economics and Statistics, Jharkhand

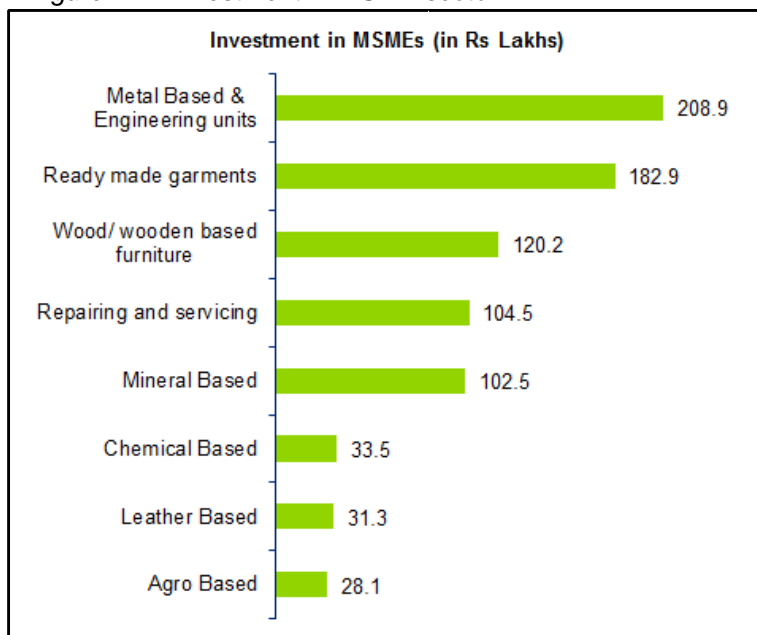
⁵¹ Directorate of Economics and Statistics, Jharkhand

Bokaro is a prominent location in the industrial map of India. Iron and steel has grown into a major industry in the district, accounting for 95% of the total industrial value of the district⁵². It is the home to Steel Authority of India's (SAIL) Bokaro Steel Plant and other associated industries like Bharat Coking Coal Limited, Electro steel Casting Limited, Sundram Steel etc.

Bokaro has large thermal plants such as Bokaro Thermal (BTPS), Tenughat Thermal (TTPS) and Chandrapura Thermal (CTPS). Indian Explosives Limited in Gomia block of Bokaro is one of the largest producers of explosives in Asia.

Bokaro Industrial Area Development Authority (BIADA) spread across 506.12 hectare of land encompasses medium and small enterprises, primarily engaged in metal based engineering works. Other key industries in MSME sector are in ready-made garments and wood/ wooden based furniture

Figure 4.4– Investment in MSME sector



Source: District Industrial Profile, MSME DI

Upcoming Investments in Large Scale Industries in Bokaro

A number of new industrial facilities are coming up in Bokaro in the next five years. Some of the key investments are highlighted below:

- A new dual fuel based thermal plant is being set up through a joint venture between SAIL and Damodar Valley Corporation (DVC), which is expected to come up by 2014 with an estimated investment of Rs. 3500 crores.
- Bokaro Steel Plant is augmenting its capacity to 7.5 MT by 2015 with an estimated investment of Rs. 280 crores.
- HPCL is investing about Rs. 188 crores in setting up a new Pol Depot at Bokaro.

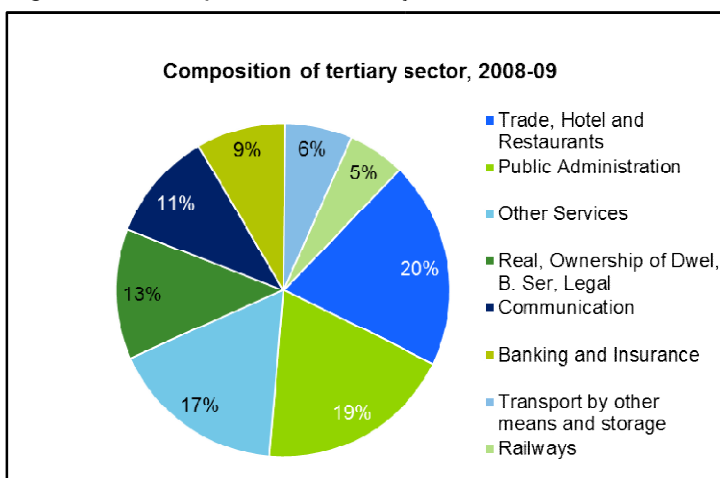
Source: CMIE Database

⁵² Jharkhand Development Report 2012

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 39.2 % in 2008-09⁵³. The sector has registered a CAGR of 8.73% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; public administration and Real Estate services.

Figure 4.5– Composition of tertiary sector



Source: Directorate of Economics & Statistics, Jharkhand

Banking and insurance and real estate services in Bokaro have grown by CAGR 13.87% and 9.75% in the period between 2004-05 and 2008-09 respectively. Bokaro had about 141 bank offices in December 2011.

There has been a rise in tourism at Bokaro in the last few years which has given an impetus to the hospitality industry. Some of the major tourist spots in Bokaro are Buddha Vihar, GayatriMandir, AaiyappaMandir, Jagannath Temple, Jawaharlal Nehru Biological Park and Bokaro City Park, which has an artificial lake & three Japanese styled artificial islands.

Future Growth Opportunities in Bokaro

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.2– Focus sectors and growth opportunities in Bokaro

Sector/ Industry	Growth Opportunities
Mineral Products	Mining and Quarrying is the highest contributor to the primary sector and will continue to create opportunities for mineral based industries such as stone-crusher, stone-cutting and polishing unit, mineral grinding, mineral processing, mica units
Basic Iron and Steel	It is the highest contributor to the manufacturing sector and will grow at a higher growth rate on account of proposed investments in the sector
Metal based and Engineering units	Augmentation of capacity of the Bokaro Steel Plant and other proposed investments in the district, is likely to create more opportunities for ancillary units in the district particularly engaged in metal based & engineering activities
Construction	Expansions and investments in the manufacturing sector is likely to fuel infrastructure development leading to an increase in construction activities
Real Estate Services	Growth in construction activities is expected to have a positive effect on the

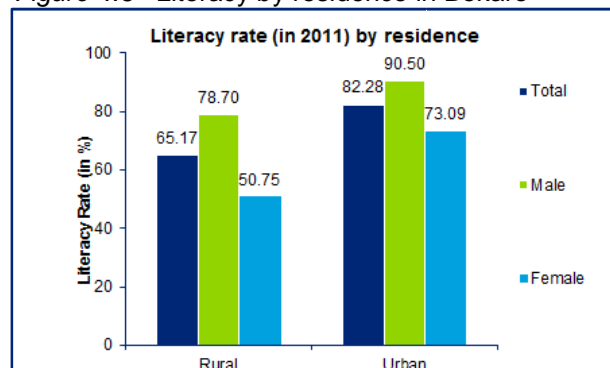
⁵³ Directorate of Economics and Statistics, Jharkhand

Sector/ Industry	Growth Opportunities
	demand of Real Estate services
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

4.1.3 Education

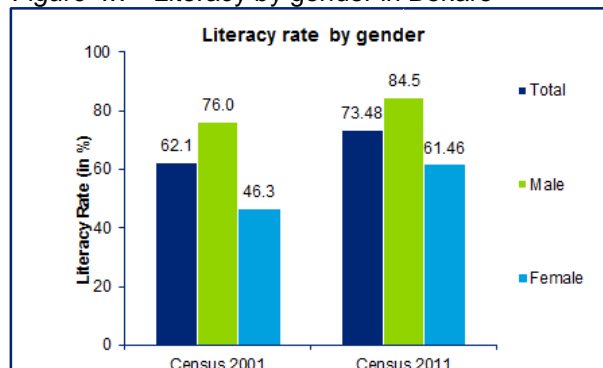
Bokaro has a higher literacy rate of 73.48% in comparison to state average of 67.63%⁵⁴. It marks a significant improvement over literacy rate of 62.1% in 2001⁵⁵. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.6– Literacy by residence in Bokaro



Source: Census 2011

Figure 4.7– Literacy by gender in Bokaro



Source: Census 2001 & 2011

Bokaro has 1965 schools with enrolment of about 3.2 lakhs⁵⁶ in primary and upper primary. Enrolment in Government schools account for 89.5% of total enrolment. 89.3% of the students attend upper primary schools after primary education. On the other hand Bokaro has 158 secondary and higher secondary schools with enrolment of about 0.85 lakhs only.

In terms of vocational training infrastructure, Bokaro has one Government Industrial Training Institute and 12 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, electrician, wiremen and machinist whereas most of the private ITCs focus on only two trades – electrician and fitter. Government ITI, Bokaro also offers 7 courses under State Council for Vocational Training (SCVT).

In addition to ITIs/ITCs, Bokaro has one Government polytechnic and one Government Women's polytechnic offering Diploma programs with approved intake of 180 students each. The Government polytechnic offers diploma programme in automobile, mechanical & computer science engineering whereas the Women polytechnic offers diploma programmes in electronics, electrical & computer science engineering.

Table 4.3– Educational infrastructure in Bokaro

Educational Infrastructure	Number of Institutes ⁵⁷	Approved Intake	Source
Programs: Engineering/ Technology	1	300	AICTE list of accredited institutes
MCA	1	120	AICTE list of accredited institutes
Management	1	120	AICTE list of accredited institutes
ITIs - Government	1	668	Ministry of Labour, Jharkhand
ITCs - Private	12	2667	Ministry of Labour, Jharkhand

⁵⁴ Census of India, 2011

⁵⁵ Census of India, 2001

⁵⁶ DISE, 2010-11

⁵⁷ Same institute might offer different programs

Government Polytechnics	2	360	Department of Science and Technology, Jharkhand
-------------------------	---	-----	---

Bokaro has significant number of private sector players engaged in skill development. NIIT has two centres in Bokaro for imparting ITeS and soft skill training to students. Some of the other major players include APTECH, IIHT, STS computer education, CDIT Infotech, Infinity Academy and Jharkhand Computer Sakshartha Mission.

4.1.4 Employment Profile

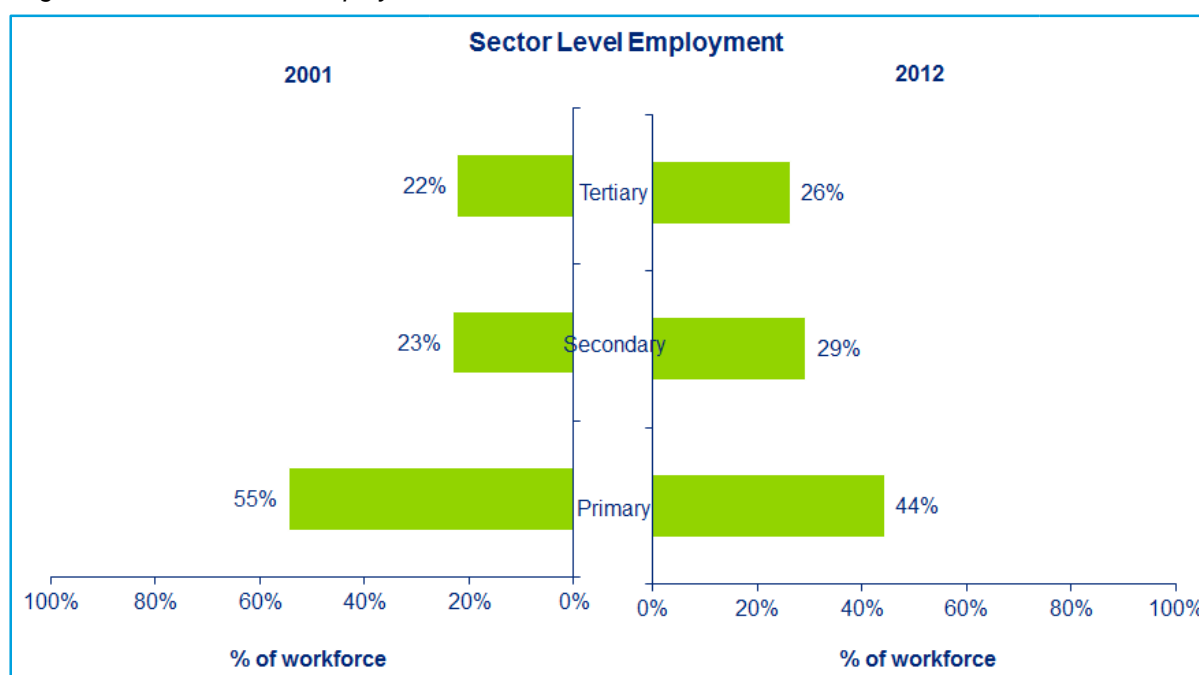
The work participation rate of Bokaro was 28.7% which is lower than the state average of 37.5%⁵⁸. Total workforce is expected to increase to 6.85 lakhs in 2012.

Table 4.4– Employment profile in Bokaro

Employment Profile (In Lakhs)	2001 ⁵⁹	2012 ⁶⁰
Total Population	17.77	20.92
Working Age Population	10.30	13.73
Labour Force	5.74	7.66
Workforce	5.09	6.85

About 55% of the workers in Bokaro district were engaged in primary sector in 2001, which is estimated to decrease to about 44% in 2012 on account of increase in opportunities in secondary and tertiary sectors⁶¹

Figure 4.8– Sector level employment in Bokaro



Source: Deloitte Analysis

⁵⁸ Census of India, 2001

⁵⁹ Census of 2001

⁶⁰ Deloitte Analysis

⁶¹ Deloitte Analysis

3.1.5 Skill Gap Assessment

Manpower Supply

The population of Bokaro in 2011 was about 20.6 lakhs which is expected to increase to about 22.5 lakhs in 2017 and about 24.2 lakhs in 2022. As per the methodology highlighted in section 2 and detailed workings in appendix 5.6 the estimated incremental manpower supply will be about 1.94 lakhs.

Table 4.5– Estimated workforce of Bokaro

Estimated Work Force			
	2011	2017	2022
Population	20,61,918	22,53,843	24,27,358
Working age population	13,53,135	15,30,090	17,02,816
Available Labour Force	7,54,336	8,52,984	9,49,274
Projected Work Force	6,62,544	8,09,586	9,41,304
Incremental manpower supply (2012-22)	1,94,938		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.6– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	13,094	14,363	27,456
Semi-Skilled	17,639	18,063	35,702
Minimally skilled	67,915	63,864	1,31,779

Manpower Demand

As per the methodology highlighted in section 2 and detailed workings in appendix 5.5 the estimated incremental manpower demand will be about 2.79 lakhs including 2.19 lakhs in organized sectors and 0.60 lakhs in unorganized sectors.

The secondary sector which contributes about 46% of the GDDP is expected to continue its growth and more than 50% of the total incremental demand in the organized sectors is expected to come from secondary sector. The manpower demand in the secondary sector is expected to be primarily driven by manufacturing. The capacity augmentation of the Bokaro Steel plant, the largest employer in the secondary sector in the district, from 4 MT to 7.5 MT by 2015 is likely to create more opportunities for ancillary units in the district, resulting in either setting up of new units or enhancing capacity of existing units. The other proposed major expansions and investments, as highlighted before, are going to further drive the requirement of manpower in the manufacturing sector.

Furthermore, the expansions and investments in the manufacturing sector are likely will fuel infrastructure development leading to an increase in construction activities. Building and Construction sector, which has grown at a rate of 8.5% during 2004-05 to 2008-09, is expected to grow at a higher rate in the next decade resulting in increase in manpower requirements. Upcoming production facilities in the area of construction material like Ultra Tech Cement Limited further reinforce our assumption of future growth of the sector.

Tertiary sector, which contributes about 39% of the GDDP of Bokaro, is anticipated to continue its growth driven by Real Estate services and Tourism, Hospitality & Travel Trade. Growth in construction activities is expected to have a positive effect on the demand of Real Estate services.

Table 4.7– Incremental manpower demand in Bokaro in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ⁶²	-	21	179	-	15	132
Mining and Quarrying	103	205	718	73	146	511
Total (I)	103	226	897	73	161	643
Secondary Sector						
Basic Iron and Steel	2663	7990	2663	2250	6751	2250
Non Metallic Mineral Products	661	1982	661	558	1675	558
Automobile/ Auto components	413	532	236	349	449	200
Electricity, Gas & Water Supply	131	184	210	97	136	155
Textile and Garments	100	201	1707	85	170	1442
Leather and Leather Goods	14	14	252	12	12	213
Chemical & Pharmaceuticals	124	207	83	105	175	70
Other Manufacturing	373	621	1490	315	525	1259
Building and Construction	3705	9263	24085	3385	8461	21999
Food Processing/ Cold Chain/ Refrigeration	241	723	3854	204	611	3256
Wood / Wooden based furniture	57	57	1030	48	48	871
Total (II)	8483	21773	36270	7408	19012	32274
Tertiary Sector						
IT/ ITES-BPO services	506	234	39	638	295	49
Tourism Hospitality and Travel Trade	7906	7906	3953	6265	6265	3133
Transportation & Logistics/ warehousing/ packaging	403	806	2822	323	646	2262
Organized Retail	390	857	312	925	2036	740
Real Estate Services	2511	2511	5023	3023	3023	6046
Media & Entertainment	1433	1289	143	1289	1161	129
Healthcare Services	272	2388	0	29	203	0
Banking Insurance & Finance	2863	337	168	3188	375	188
Education/ Skill Development Services	1461	1509	0	1341	296	0
Total (III)	17745	17839	12460	17022	14300	12546
Grand Total (I+II+III)	26337	39838	49627	24508	33473	45463
Total Incremental Demand	2,19,243					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.60 lakhs in the next 10 years.

Table 4.8– Incremental manpower demand in Bokaro in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	18,305	13,487
Drivers	4779	5548
Domestic help	1846	1669

⁶² Employment in organized agriculture activities

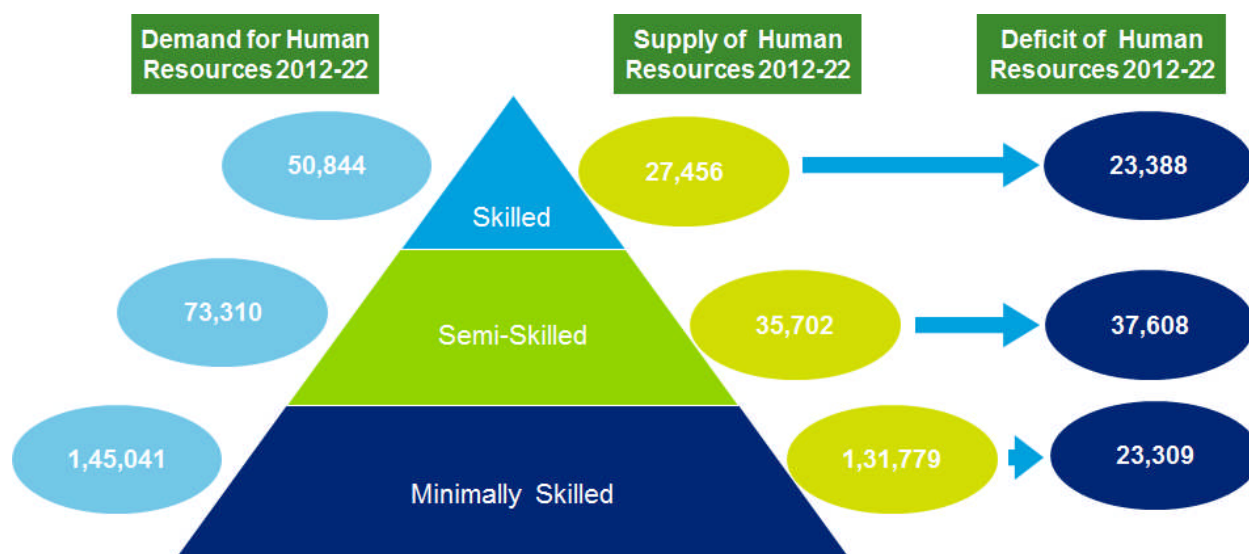
“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Security Guards	1053	952
Others	5566	6793
Total	31,549	28,449
Total Incremental Demand – Unorganized Sectors	59,998	

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.84 lakhs.⁶³

Figure 4.9– Incremental manpower gap in Bokaro



Qualitative Skill Gaps

Table 4.9– Qualitative skill gaps in high demand sector in Bokaro

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial

⁶³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

		planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills
Iron & Steel and Engineering Units	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Banking, Financial Services & Finance	Field Executive/ Agent	<ul style="list-style-type: none"> - Poor knowledge of banking products - Poor communication skills - Poor selling skills
Organized Retail	Billing Associate	<ul style="list-style-type: none"> - Inadequate knowledge of software related to transaction processing - Inadequate soft skills
	Sales person	<ul style="list-style-type: none"> - Inadequate product specific knowledge - Inadequate communication skills - Inadequate understanding of various schemes

3.1.6 Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the PSEs or Indian Railways. However, as PSUs and Indian Railways conduct their own entrance examinations to select candidates and campus selection facility in the institutes in which they are studying are minimal, most of pass out students apply for jobs in the open markets.

Youth in Bokaro aspire to get job opportunities in the Government sectors preferably with the PSEs or Indian Railways.

Source: Focus Group Discussion, Bokaro

- Students highlighted lack of quality faculty & instructors and old & outdated machinery in the workshop as major barriers in skill development in the institutes. Also, lack of soft skills training has also been identified as a hindrance for many students to get jobs in the open market

Perception of other key stakeholders:

- As per industry representatives, the students passing out from the local ITIs/ ITCs & Polytechnic institutions do not meet the quality requirements of the organization. The recruited students need to undergo a 4-6 month training programme before being deployed on the shop floor.
- Mr.SanjaiBaid, President, Bokaro Chamber of Commerce highlighted the role of industry associations in Bokaro in facilitating the training needs of the newly recruited workers by ancillary units and MSMEs in the district. The industry associations are also acting as bridge between the unemployed youth and industry. They organize udyogmelas regularly which helps in creating employment opportunities for the unemployed youth. District Industrial Centre (DIC) is also helping the MSMEs in meeting their training needs.

3.1.7 Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Basic Iron and Steel & (iii) Non Metallic Mineral Products
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Real Estate Services (iii) Banking Insurance & Finance

Considering economic and skill landscape of Bokaro, the proposed action plan would consist of the following priority areas:

Table 4.10– Recommendations and action points for Bokaro

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate services - Banking, insurance & finance - Tourism, hospitality & travel
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Basic iron & steel industry - Non-metallic mineral products industry

	<ul style="list-style-type: none"> • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Organised retail - Banking, insurance & finance - Tourism, hospitality & travel - Transportation & logistics - Drivers • Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for coal & steel industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes • Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income • Focus on supporting creation of micro-enterprises/ ancillaries for minerals sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms • Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Coal & Steel industry - Non-metallic mineral products industry

4.2 Giridih

Giridih is one of the northern districts of Jharkhand situated in the central part of the North Chhota Nagpur division. The district is bound by Jamui district and Nawada district of Bihar in the north, Deoghar & Jamtara districts on the east, Dhanbad & Bokaro districts on the south and Hazaribag & Koderma districts on the west. The district is spread over 492.1 thousand hectares which constitutes about 6% of total geographical area of Jharkhand. Administratively, the district is divided into 13 Blocks / Tehsils.

4.2.1. Demography

Giridih has a total population of 24.45 lakh. About 91% of total population⁶⁴ of Giridih reside in rural areas. The district is slightly densely populated with 497 persons per sq. km. in comparison to the state average of 414⁶⁵. Sex ratio in the district is slightly lower than the state average.

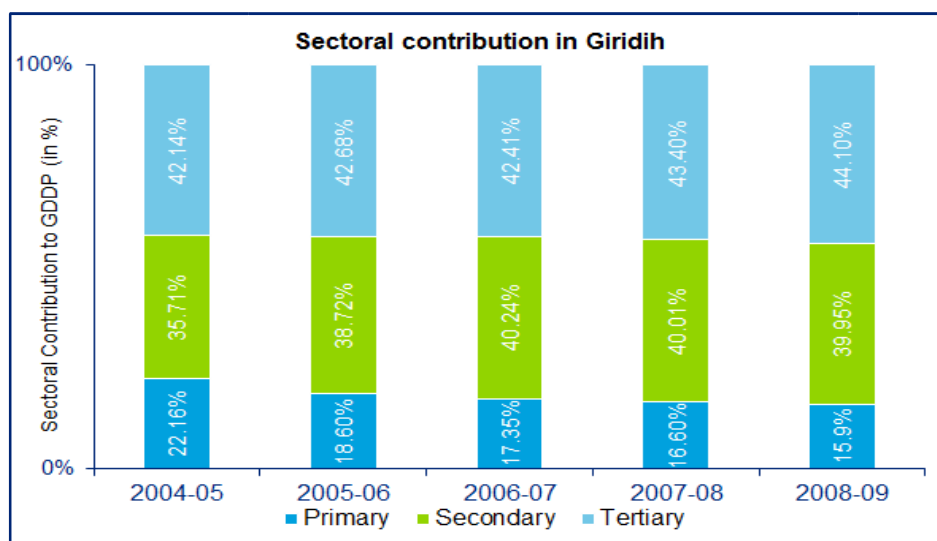
Table 4.10– Demography of Giridih

Demography	Giridih	Jharkhand
Total Population	24,45,203	3,29,66,238
Decadal Population Growth Rate (2001-11)	28.33%	22.34%
Population density per sq. km (2011)	497	414
Sex Ratio (2011)	943	947
Percentage of Urban Population (2011)	8.5%	24%
Percentage of SC population (2001)	13.0%	11.8%
Percentage of ST population (2001)	9.7%	26.3%

4.2.2. Economic Profile

Gross District Domestic Product (GDDP) of Giridih has grown by a growth rate (CAGR) of 7.18% during 2005-09 as compared to the state's growth rate of 6.70% during the same period⁶⁶. During 2008-09, tertiary sector was the leading contributor to GDDP with a share of 44.1%.

Figure 4.10– Sector level contribution to GDDP of Giridih



Source: Directorate of Economics & Statistics, Jharkhand

⁶⁴ Census of India, 2011

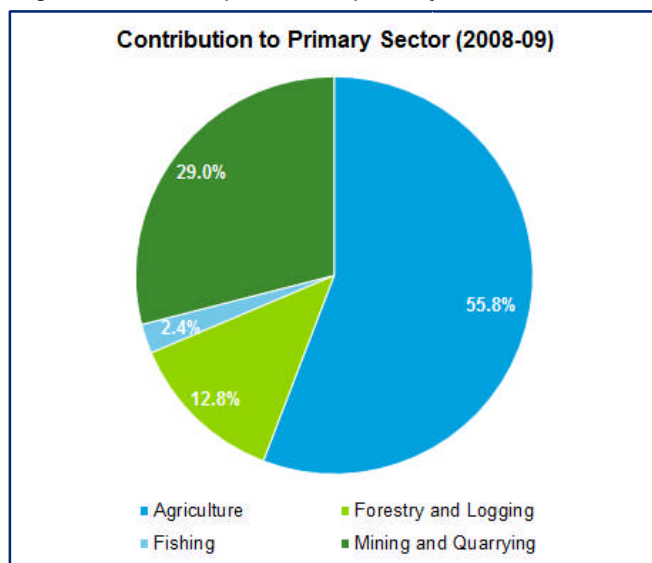
⁶⁵ Census of India, 2011

⁶⁶ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 15.96% to the GDDP in 2008-09⁶⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of decrease in contribution of agriculture and allied activities.

Figure 4.11– Composition of primary sector of Giridih



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector - Highlights

- Agro climatic condition of the district is ideal for cultivation of fruits like mango, guava, banana, jack-fruit and vegetables like potato, cauliflower, tomato and brinjal.
- Significant demand for broiler poultry exists due to the district's proximity to industrial townships/ cities.
- Sheep, goat and pig rearing are practised by landless labourers as an additional source of income.
- Large deposits of high quality metallurgical coal and ruby mica is found in the district.

Net sown area in the district is 138,412 hectare, out of which 8.5%⁶⁸ is under multiple cropping. Paddy and maize are the two main crops of the district. As favourable conditions for vegetable cultivation exist in the district, major vegetable cultivation clusters have been developed at Bengabad, Gandey and Gawan blocks.

The district has a forest cover of 32.1%⁶⁹ of total geographical area which is higher than state average (29%). Sericulture has been developed at Bengabad and Dumri blocks. The district has a Resham Sewa Kendra and Tassar Marketing Organisation for promoting sericulture. M/s D 1 Williamson Magor has undertaken contract farming for Jatropa plantation in uncultivable/ barren land. The company has proposed to install oil expeller units for every 2000 hectares of plantation and one refinery unit in Giridih.

Central Coalfield Ltd. has several coal mines in the district. In addition to coal, building stone, sand stone and quartz are also mined extensively in the district. Ruby Mica is found near Tisri and Gawan blocks.

Secondary sector

The contribution of secondary sector to GDDP in 2008-09 was about 39.95%⁷⁰. The sector has registered a CAGR of 10.23% between 2004-05 and 2008-09 primarily on account of significant growth in manufacturing activities. Manufacturing activities had a share of 68.03% in the secondary sector.⁷¹

Food processing industry is the largest employer in the district. The state government has set up a milk processing plant ("Giridih Dairy") with a capacity of 5000 litres per day in the district and the packaged

⁶⁷ Directorate of Economics and Statistics, Jharkhand

⁶⁸ Rashtriya Krishi Vikas Yojana, Jharkhand

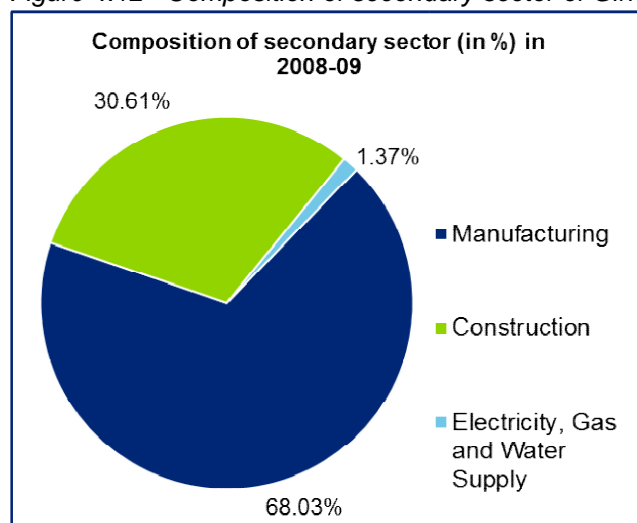
⁶⁹ Directorate of Economics and Statistics, Jharkhand

⁷⁰ Directorate of Economics and Statistics, Jharkhand

⁷¹ Directorate of Economics and Statistics, Jharkhand

milk is marketed under the brand name “DUGDH”. The dairy also proposes to produce butter, curd, lassi and peda. The district has also about 50 poultry units and few goat meat processing units in addition to many cooperative societies engaged in food processing.

Figure 4.12– Composition of secondary sector of Giridih



Source: Directorate of Economics & Statistics, Jharkhand

Non-metallic mineral based and coke oven product industries are key industries in the district in terms of gross value added.

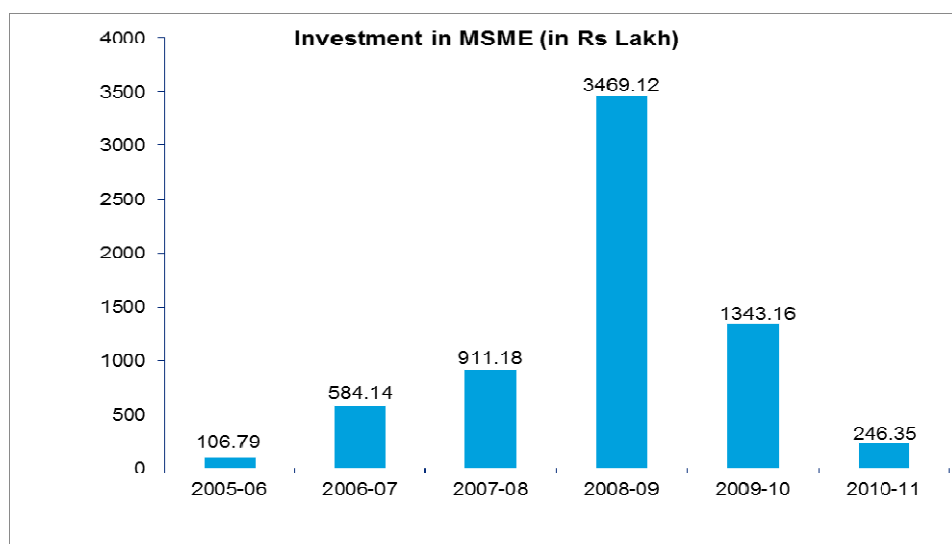
However, food processing (including beverages) and textiles have the highest share of employment in manufacturing with 41.52% and 21.67% respectively.

Bokaro Industrial Area Development Authority (BIADA) has allocated 34.87 acres of land to MSMEs in the district. Some of the key MSME industries are textiles, repair & servicing and wood & wooden based furniture.

Non-metallic mineral and coke oven based industries constitute about 70%⁷² of gross value added by the manufacturing sector in the district which highlights the strength of the district in terms of coal and other mineral deposits. Basic iron and steel industry is a significant contributor among other manufacturing industries. Some of the large industries in the district are Atibir Industries, Shivam Iron & Steel Co. and Balmukund Sponge Iron Pvt. Ltd.

The district houses many MSME units which are engaged in diverse industries like textiles, engineering units, repairing and servicing and wood based furniture. Significant investments have been made in MSME sector during 2005-11⁷³.

Figure 4.13– Investments in MSME sector of Giridih



Source: District Industrial Profile, Giridih, MSME - DI

⁷² Jharkhand Development Report, 2012

⁷³ District Industrial Profile, Giridih

Proposed Large and Medium Investments

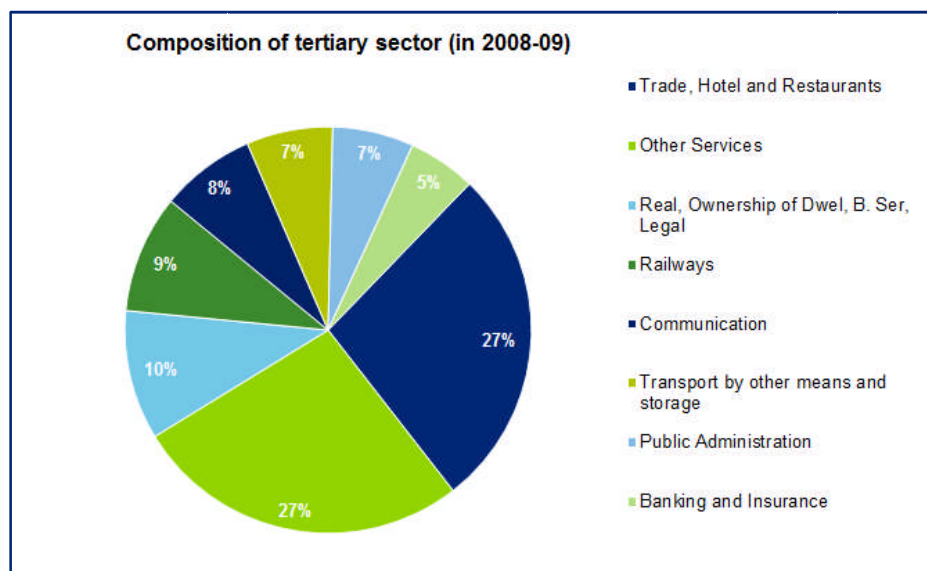
- Transport Infrastructure: Railway lines between Giridih and Koderma are being laid at an estimated budget of Rs 12,000 million
- Electricity Generation: DVC has proposed setting up of a state of art dual fuel based power plant in Giridih
- Basic Iron and Steel: Several companies like Veer Ispat, Satyam Iron & Steel, NiranjanaMetallics have proposed basic iron and steel plants in the district.

(Source: CMIE Database, District Industrial Profile (Giridih))

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 44.1 % in 2008-09⁷⁴. The sector has registered a CAGR of 8.41% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; education and skill development services, health care, real estate, business & legal services and transportation and logistics.

Figure 4.14– Composition of tertiary sector of Giridih



Source: Directorate of Economics & Statistics, Jharkhand

Hotel & restaurants and trade sector has grown at a CAGR of 5.47% during 2005-09. Giridih has many important tourist attractions like Usri Fall, Khandoli, Madhuban, Parasnath, JharkhandiDham and HariharDham. Parasnath hill is an important centre of pilgrimage for Jains and attracts thousands of visitors every year.

Transportation and logistics contributed about 16% of GDDP in 2008-09; out of which about 57.8% was contributed by railways. Coal, other minerals, fruits, vegetables and poultry are major items that are transported within the district and to nearby industrial belts in Bokaro and Dhanbad.

Education and healthcare are the main drivers for the growth of “Other Services” sector in Giridih. Government initiatives for strengthening primary education, has generated employment opportunities in education and skill development services.

⁷⁴ Directorate of Economics and Statistics, Jharkhand

Future Growth Opportunities in Giridih

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

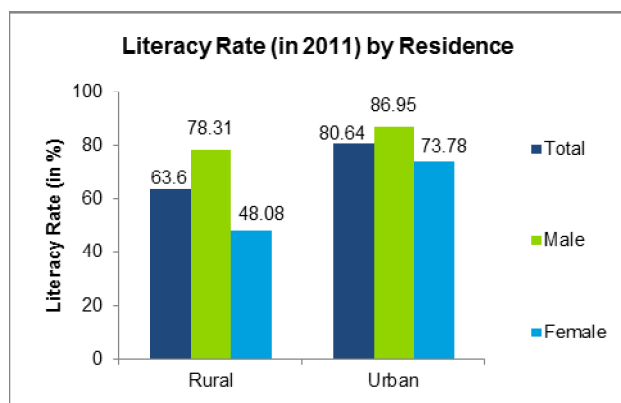
Table 4.12– Focus sectors and growth opportunities in Giridih

Sector/ Industry	Growth Opportunities
Agriculture and Allied Activities	Horticulture - Favourable climatic conditions for fruits like mango, guava and vegetables like potato, tomato etc. along with demand in nearby districts. Sericulture - Sericulture will provide income for tribal population of the district on account of various government initiatives and favourable factor endowments like high forest cover.
Food Processing	It is the highest employer in secondary sector and significant opportunities exist for dairy/ dairy products, meat from goat and poultry, mushroom and various mills like rice, dal, and oil.
Non-metallic mineral and coke oven products	Contribute about 70% of secondary sector. Due to its proximity to major industries in Bokaro and Dhanbad and proposed investments, the sector is expected generate significant employment in hard coke, mica powder, dehydrated lime and refractory bricks.
Textile and garments	Ready-made garments and embroidery work.
Iron & Steel and Engineering based	Ancillary units engaged in steel casting, automobile spare parts, nut and bolt, wire nail, ferrous casting and agricultural instruments
Tourism hospitality and travel trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.
Building & Construction	Proposed infrastructure development projects along with increasing degree of urbanisation in the district are likely to fuel construction activities.
Education and Skill Development	Schools, coaching institutes and training institutes including computer training institutes are expected to generate significant employment opportunities.

4.2.3. Education

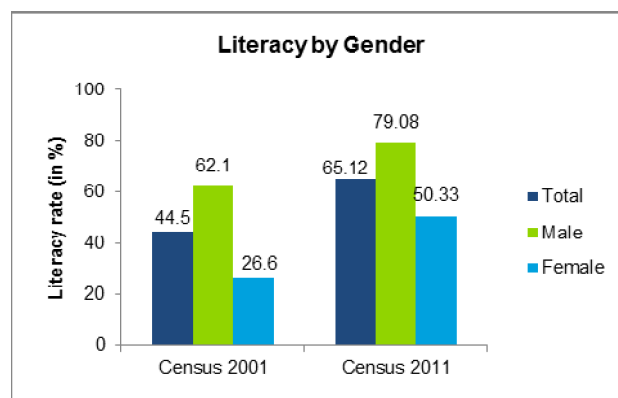
Giridih has a literacy rate of 65.12%, which is lower than the state's literacy rate of 67.63%⁷⁵. However, it marks a significant improvement over literacy rate of 44.5% in 2001⁷⁶. Nevertheless, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.15– Literacy by residence in Giridih



Source: Census 2011

Figure 4.16– Literacy by gender in Giridih



Source: Census 2001 & Census 2011

⁷⁵ Census of India, 2011

⁷⁶ Census of India, 2001

Giridih has 3,635 schools with enrolment of about 5.42 lakhs in primary and upper primary⁷⁷. Enrolment in Government schools accounts for 88.8% of total enrolment in class I-VIII. Only 68.9% of the students enrol in upper primary after completing primary education. On the other hand, only 0.68 lakh students are enrolled in 137 secondary and higher secondary schools in the district.

Giridih has no institute offering AICTE accredited programs/ professional courses. In terms of vocational training infrastructure, Giridih has only one Government Industrial Training Institute accredited under State Council for Vocational Training (Jharkhand). Major trades offered in the Government ITI are mechanic (general electronics), fitter, electrician, turner, mechanic (motor vehicle) and Information Technology. The institute also conducts one year courses focusing on computer operator and welder trades. Giridih lacks polytechnic institutes as well as private industrial training centres.

Table 4.13– Educational infrastructure in Giridih

Educational Infrastructure	Number of Institutes ⁷⁸	Approved Intake	Source
B.Ed.	5	500	National Council for Teacher Education
ITIs - Government	1	180	Ministry of Labour, Jharkhand

Some of the major private sector players engaged in skill development in Giridih are JTTI, NIIT and Software Study Centre.

4.2.4. Employment Profile

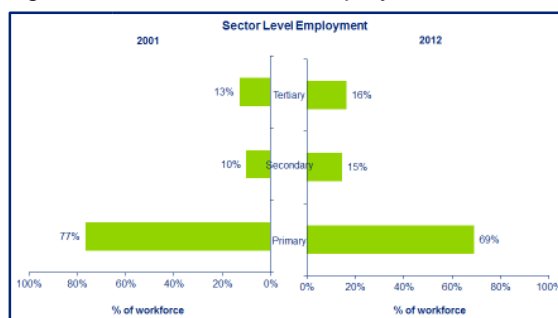
The work participation rate of Giridih was 33.8% which is lower than the state average of 37.5%⁷⁹. As per Deloitte analysis, total workforce of Giridih is expected to be 8.68 lakhs in 2012.

Table 4.14– Employment profile in Giridih

Employment Profile (In Lakhs)	2001 ⁸⁰	2012 ⁸¹
Total Population	19.04	25.07
Working Age Population	9.64	14.64
Labour Force	6.21	9.43
Workforce	6.41	8.68

The primary sector will continue to employ majority of the workforce but the contribution of primary sector to total employment is expected to decrease on account of increasing opportunities in secondary and tertiary sector in the district.

Figure 4.17– Sector level employment in Giridih



Source: Deloitte Analysis

⁷⁷ DISE, 2010-11

⁷⁸ Same institute may offer different programmes

⁷⁹ Census of India, 2011

⁸⁰ Census of 2001

⁸¹ Deloitte Analysis

4.2.5. Skill Gap Assessment

Manpower Supply

The population of Giridih was about 24.5 lakhs in 2011 which is expected to increase to about 28.4 lakh in 2017 and about 32.2 lakh in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 3.92 lakhs during 2012-22.

Table 4.15– Estimated workforce of Giridih

Estimated Work Force			
	2011	2017	2022
Population	24,45,203	28,39,958	32,17,184
Working age population	14,28,175	17,28,277	20,36,614
Available Labour Force	9,20,043	11,13,372	13,12,005
Projected Work Force	8,42,595	9,97,256	11,27,361
Incremental manpower supply (2012-22)	3,91,962		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled categories based on education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.16– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2018-22	Total
Skilled	9,140	10,822	19,962
Semi-Skilled	1,966	833	2,799
Minimally skilled	1,82,222	1,86,978	3,69,200

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand is about 2.85 lakh including 1.39 lakh in organized sectors and 1.46 lakhs in unorganized sector.

The manpower demand in secondary sector is expected to be driven by medium and small industries engaged in manufacturing and from building and construction activities. Proximity to mines and industrial districts of Bokaro and Dhanbad is expected to create significant opportunities for ancillary units for supply / repair of equipment and spare parts in the district. As a result, unregistered manufacturing is expected to grow at a higher rate of 7.5% during 2012-22 as compared to 4.4% during the last decade.

Some of the major projects such as the power project by Bokaro Power Supply Co. and the Koderma - Giridih railway project by East Central Railways are expected to fuel the demand for workers in the secondary sector. Infrastructure development and increasing urbanisation will generate a high demand for construction workers during 2012-22. Food processing including beverages industry is likely to generate significant employment opportunities during 2012-22.

Contribution of tertiary sector to GDDP is estimated to cross 50% by 2022, generating employment avenues in the district. As highlighted below, the incremental manpower demand in tertiary sector is expected to primarily come from tourism, hospitality, travel and trade (28%); real estate services (25%) and education/ skill development services (18%).

Table 4.17– Incremental manpower demand in Giridih in organized sectors

Incremental Demand – Organized sectors	2012-17			2018-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ⁸²	24	80	696	18	61	535
Mining and Quarrying	42	84	294	30	61	213
Total (I)	66	164	990	49	122	748
Secondary Sector						
Repairing and Servicing	152	196	87	134	173	77
Textiles & garments	221	441	3753	195	390	3311
Chemicals & pharmaceuticals	45	75	30	39	66	26
Food processing/ Cold Chain/ Refrigeration	423	1269	6767	373	1120	5971
Wood & wood based furniture	-	-	101	-	-	90
Non Metallic Mineral Products	342	1026	342	302	905	302
Other Manufacturing	764	1273	3056	674	1123	2696
Electricity, Gas and Water Supply	11	16	18	-	12	13
Building & construction	2138	5346	13899	1811	4528	11772
Total (II)	4102	9648	28053	3541	8322	24258
Tertiary Sector						
IT/ ITES-BPO services	63	29	-	283	130	22
Tourism Hospitality and Travel Trade	3763	3763	1882	2757	2757	1379
Transportation & Logistics/ warehousing/ packaging	277	554	1938	224	449	1570
Real Estate Services	1662	1662	3324	2065	2065	4131
Media & Entertainment	867	781	87	787	709	79
Healthcare Services	368	3003	0	62	442	0
Banking Insurance & Finance	1685	198	99	1881	221	111
Education/ Skill Development Services	2127	3511	0	2745	1999	0
Total (III)	10812	13501	7335	10804	8772	7292
Grand Total (I+II+III)	14980	23311	36376	14396	17215	32296
Total Incremental Demand	1,38,573					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 1.46 lakh in the next 10 years.

Table 4.18– Incremental manpower demand in Giridih in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2018-22
Agriculture & allied activities	71,239	54,767
Drivers	2,135	2,475
Domestic help	3,202	3,060
Others	3,595	5,997
Total	80,172	66,299
Total Incremental Demand – Unorganized Sectors	1,46,471	

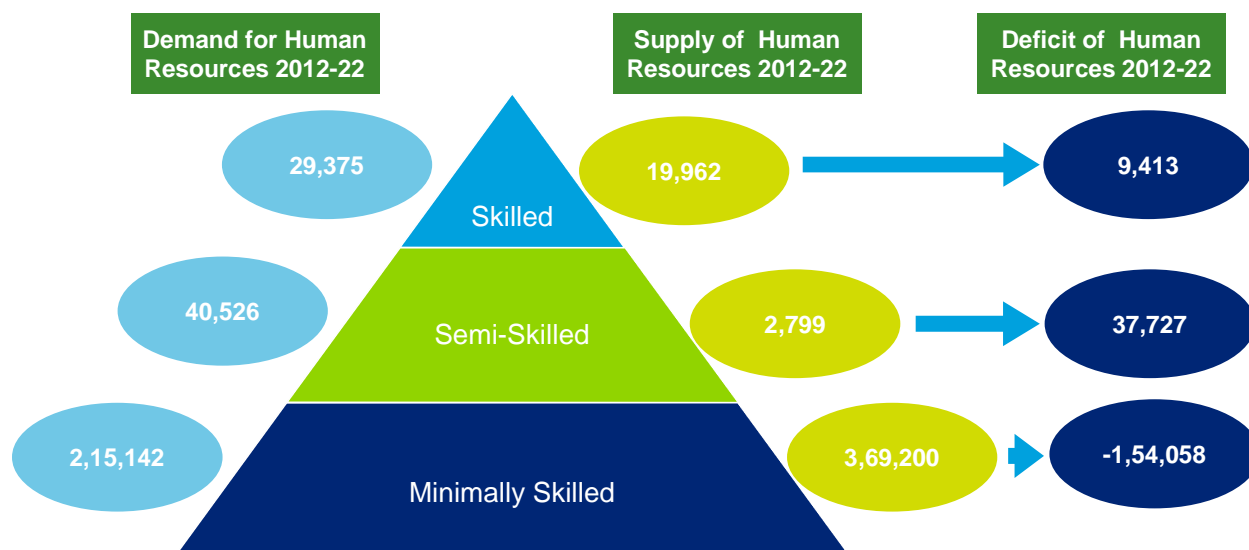
⁸² Employment in organized agriculture activities

“ – “ Negligible Demand – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be about minus (–) 1.07 lakhs⁸³, indicating an excess of supply.

Figure 4.18– Incremental manpower gap in Giridih



Qualitative Skill Gaps

Table 4.19– Qualitative skill gaps in high demand sector in Giridih

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques
Iron & Steel/ Engineering	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts

⁸³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Units/ Non-metallic mineral products	Workman/ Operator	<ul style="list-style-type: none"> - Inadequate understanding of product specifications - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Education & Skill Development	Teachers/ Instructors	<ul style="list-style-type: none"> - Inability to deliver content in a simple way to facilitate better comprehension by students - Lack of empathy for students - Lack of knowledge of ICT usage in teaching
Textile & garments	Operator	<ul style="list-style-type: none"> - Skill confined to single or few machines - Lack of knowledge of quality compliance - Lack of ability to plan and multitask
	Sales executive	<ul style="list-style-type: none"> - Lack of negotiation skills - Inadequate communication and networking skills

4.2.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- As jobs opportunities are limited in the district, most of the students we interacted with are either preparing for competitive examinations especially to get government jobs like the railways or planning to go to other districts of the state to find suitable employment.
- Many of the students feel that basic functional knowledge of computers is mandatory in addition of being technically strong for getting a good job and being successful in their career.
- Most of the students feel that the courses are not modelled based on the local industry requirements. Some of the students also aspire to go for higher studies.

Students of ITI, feel that basic functional knowledge of computers is mandatory in addition of being technically strong for getting a good job and being successful in their careers

Source: Focus Group Discussion, Giridih

Perception of other stakeholders:

- Mr.Pramod Kumar Lohani, General Manager (District Industries Centre, Giridih) highlighted that due to lack of infrastructural facilities no new major industries are coming up in the district. Also, most of the existing industries are apprehensive about major expansions in the district. One of the key issues faced by the local industry in the district is lack of continuous power supply. Most of the industries depend on diesel generators to meet their power requirements.

4.2.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Food Processing (iii) Textiles and Garments
- Priority industries for skill development in tertiary sector are (i) Tourism, Hospitality & Travel Trade (ii) Education & Skill Development Services (iii) Real Estate Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Giridih, the proposed action plan would consist of the following priority areas:

Table 4.20– Recommendations and action points for Giridih

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Food processing - Textile & Garments - Education & skill development - Tourism, hospitality & travel - Building & construction
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Education & skill development - Non-metallic mineral products industry • Update machinery & provide manuals in workshops for practical classes • Develop courses for emerging sectors like <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel • Focus on developing communication skills & basic IT skills of the students • Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for sourcing workers for industries in industrial belt of Ranchi, Jamshedpur, Dhanbad and Bokaro; ensuring proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes in the district • Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> - Vegetable clusters: Bengabad, Gandey and Gawan - Sericulture: Bengabad, Dumri - Plantations for bio-fuel

	<ul style="list-style-type: none"> • Focus on supporting creation of micro-enterprises/ ancillaries for food processing and mineral based products industries in the district • Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA • Engage with industry players like DVC and industry associations like CII & Giridih Chamber of Commerce to develop vocational training curriculum with focus on increasing employability of passing out students
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development/ educational institutes in capacity building of instructors/ teachers • Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Non-metallic mineral products industry - Textiles & garments - Food processing

4.3 Deoghar

Deoghar falls in the Santhal Parganas division of the state of Jharkhand. It is surrounded by Banka district of Bihar in the north, by Dumka (Jharkhand) in the east, by Jamtara (Jharkhand) in the south and by Munger (Bihar) and Giridih (Jharkhand) in the west. The district is spread over 248.5 thousand hectares which constitutes about 3% of total geographical area of Jharkhand. Deoghar town is the divisional headquarter. For administrative purpose the district has been divided into 2 sub-divisions and 8 Blocks / Tehsils.

4.3.1. Demography

Deoghar has a population of 14.91 lakhs as of 2011 of which about 17% reside in urban areas⁸⁴. The urban population of Deoghar is much lower in comparison to the state average. The district is densely populated with 602 persons per sq. km. in comparison to the state average of 414⁸⁵. The district has a lower sex ratio than the state.

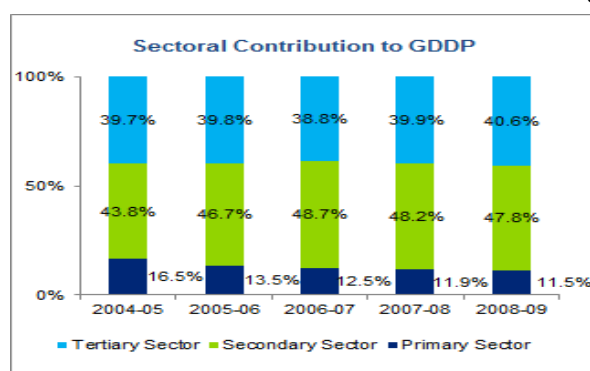
Table 4.21– Demography of Deoghar

Demography	Deoghar	Jharkhand
Population (2011)	14,91,879	3,29,66,238
Decadal Population Growth Rate (2001-11)	28.02%	22.34%
Population density per sq. km (2011)	602	414
Sex Ratio (2011)	921	947
Percentage of Urban Population (2011)	17%	24%
Percentage of SC population (2001)	12.6%	11.8%
Percentage of ST population (2001)	12.2%	26.3%

4.3.2. Economic Profile

Gross District Domestic Product (GDDP) of Deoghar has grown at a higher growth rate (CAGR) of 8.15% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period⁸⁶. Secondary sector contributes about 47.8% of the GDDP primarily on account of contribution coming from manufacturing activities.

Figure 4.19– Sector level contribution to GDDP of Deoghar



Source: Directorate of Economics & Statistics, Jharkhand

⁸⁴ Census of India, 2011

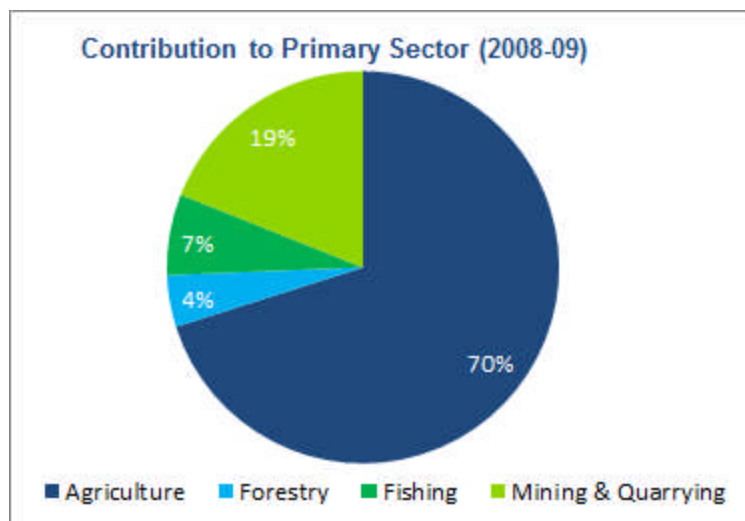
⁸⁵ Census of India, 2011

⁸⁶ Directorate of Economics and Statistics, Jharkhand

Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 11.5% to the GDDP in 2008-09⁸⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of increasing contribution of secondary & tertiary sectors and decrease in contribution of Agriculture & Mining & Quarrying to the primary sector.

Figure 4.20– Composition of primary sector of Deoghar



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Agro climatic condition of the district is ideal for horticulture including vegetable cultivation, floriculture and sericulture
- Wasteland and barren forest land in the district is utilized for selective cultivation of medicinal & aromatic plants and cultivation of Jatropha plants
- Significant demand for broiler poultry exists due to the district being a tourist hub. Sheep, goat and pig rearing are practised by landless labourers as an additional source of income.
- Dairy is a major contributor to agriculture and allied activities. A milk chilling plant operates in the district with installed capacity of 10000 LPD.
- Deoghar is rich in coal reserves. Chitra Block of Eastern Coal Fields Limited's Deoghar mines has abundant coal reserves.

*Source: Integrated Coal Resources Information System

Source: District Agriculture Plan-Deoghar (2008-09 to 2011-12), NABARD Consultancy Services

In the district, net cultivated area is about 44% of the geographic area.⁸⁸ Out of net sown area of 108330.53 hectares, only about 14.98% is under irrigation⁸⁹. The main crops of the district are paddy, maize, wheat, pulses & oilseeds. The climate of the district remains cool throughout the year with an average rainfall of 1200 mm to 1300 mm which is conducive for production of vegetables.

⁸⁷ Directorate of Economics and Statistics, Jharkhand

⁸⁸ District Agriculture Plan-Deoghar (2008-09 to 2011-12), NABARD Consultancy Services

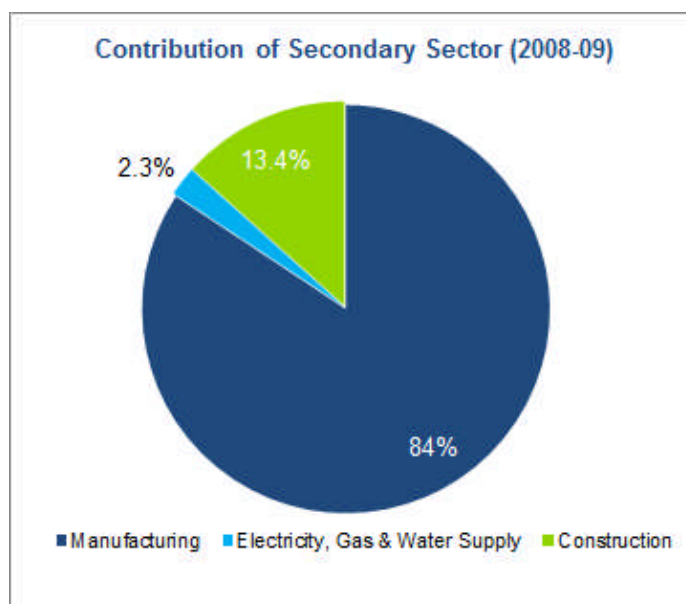
⁸⁹ District Agriculture Plan-Deoghar (2008-09 to 2011-12), NABARD Consultancy Services

Mining and Quarrying is the second highest contributor of the Primary sector in Deoghar. The district is rich in coal, feldspar and quartz. The Eastern Coalfields Limited is involved in carrying out coal mining operations in Deoghar. The production of Coal in 2010-11 was 1479334 M.T.⁹⁰ while the combined production of Feldspar & Quartz was 12500 M.T.⁹¹

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 47.8%⁹². The sector has registered a CAGR of 10.58% between 2004-05 and 2008-09 primarily on account of growth in manufacturing activities. Manufacturing activities contributed about 84% of the contribution of the secondary sector to the GDDP.⁹³

Figure 4.21– Composition of secondary sector of Deoghar



Source: Directorate of Economics & Statistics, Jharkhand

Secondary Sector - Highlights

- The Iron & Steel industry has the maximum share in the industrial production of Deoghar at 27%. It is followed by non-metallic minerals and food processing at 20% and 17.10% respectively
- However, maximum employment is generated by Food processing industry accounting for 60% of industrial workers. It is followed by metal products manufacturing and non-metallic mineral products accounting for 25% and 2.15%, respectively
- An Ultra Mega Power Project (UMPP) of Power Finance Corporation is coming up in the district which is being designed and commissioned by Tata Consulting Engineers

Source: Jharkhand Development Report 2012

⁹⁰ District Industrial Profile, MSME

⁹¹ District Industrial Profile, MSME

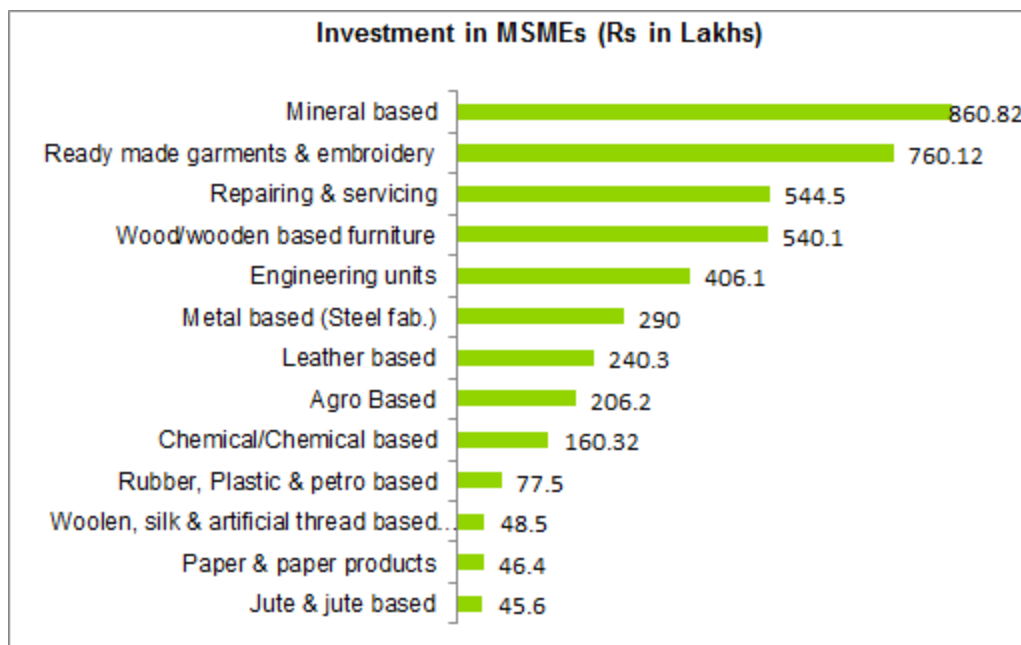
⁹² Directorate of Economics and Statistics, Jharkhand

⁹³ Directorate of Economics and Statistics, Jharkhand

The major industries in the district include railway wagon factory at Jasidih and silicate factory in Madhupur. The Crystal Glassware project by La Opala RG Ltd. in Madhupur has been completed and will start production soon. An Ultra Mega Power Project (UMPP) of Power Finance Corporation is coming up in the district which is being designed and commissioned by Tata Consulting Engineers. It is the second UMPP in the state after Tilaiya (being executed by Reliance Power). The commissioning of the UMPP will provide impetus to the industry and improve the investment scenario in the district. The district is also well connected with rail and road networks and the work on the recently announced airport is likely to commence shortly.

The key industries in the MSME sector include mineral based and textiles units

Figure 4.22– Investments in MSME sector of Deoghar



Source: District Industrial Profile, MSME DI

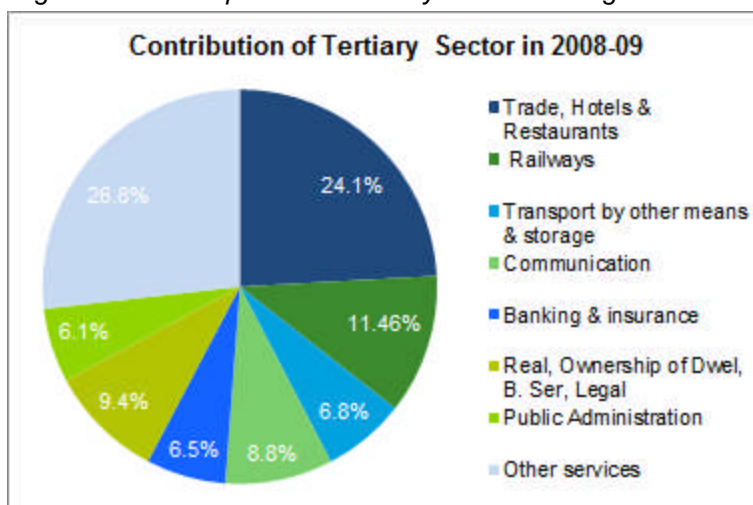
Tertiary Sector

The contribution of the tertiary sector to GDDP was about 40.6 % in 2008-09⁹⁴. The sector has registered a CAGR of 8.79% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; Railways, Communication and Real Estate services.

Tourism is a highest contributor to the tertiary sector. Deoghar, also known as BaidyanathDham, is an important Hindu pilgrimage site. It is one of the twelve jyotirlinga and also one of the 51 Shaktipeeths in India. It is visited by 7 to 8 million devotees in the month of Shraavan. Apart from the month of Shraavan also the district is thronged by tourists almost throughout the year. This constant flow of tourists at Deoghar has provided impetus to the hospitality industry. Some of the other tourist spots in Deoghar are NandanPahar, Tapovan, TrikuthParvat and HarilaJori.

⁹⁴ Directorate of Economics and Statistics, Jharkhand

Figure 4.23– Composition of tertiary sector of Deoghar



Source: Directorate of Economics & Statistics, Jharkhand

Future Growth Opportunities in Deoghar

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

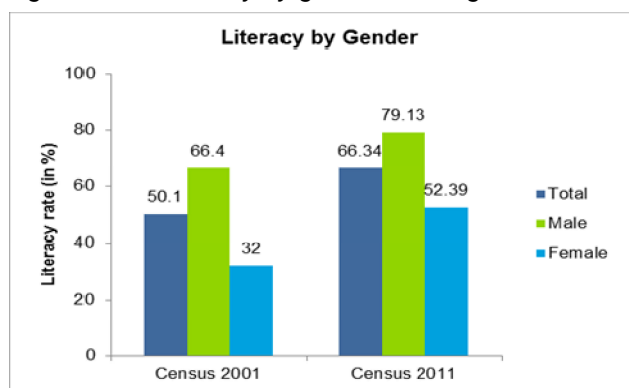
Table 4.22– Focus sectors and growth opportunities in Deoghar

Sector/ Industry	Growth Opportunities
Agro-based	Deoghar has immense potential in this sector. The climate and geographical location of the district makes the following activities conducive: <ul style="list-style-type: none"> • Tassar& Lac cultivation • Fodder seed production • Cultivation of medicinal and aromatic plants • Dairy Development
Food Processing	Growth in agriculture& allied activities provides huge opportunities for the food processing sector.
Mineral Products	Mining and Quarrying is the second highest contributor to the primary sector and is likely to continue to create opportunities for mineral based industries in the district
Manufacturing	The upcoming Ultra Mega Power Plant is likely to provide opportunities for ancillary units engaged in the fabrication & manufacturing of engineering goods
Tourism, Hospitality & Travel Trade	It is the one of the main stays of the economy of the district and has the potential to grow further future
Construction	Construction activities is likely to gain pace with likely increase in manufacturing activities owing UMPP, construction of the proposed airport etc.
Real Estate Services	Growth in construction activities is expected to have a positive effect on the demand of Real Estate services

4.3.3. Education

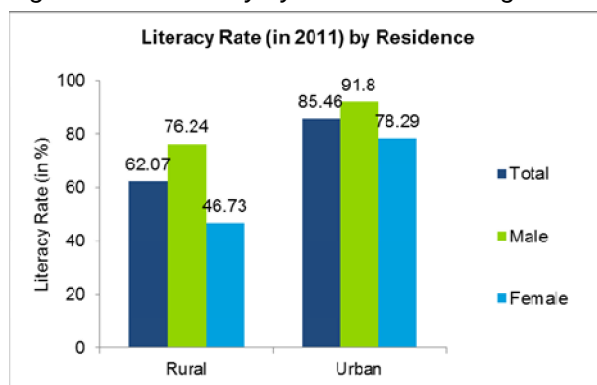
Deoghar has a lower literacy rate of 66.34% in comparison to state average of 67.63%⁹⁵. It marks significant improvement over literacy rate of 50.1% 2001⁹⁶. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.24– Literacy by gender in Deoghar



Source: Census 2011& 2001

Figure 4.25– Literacy by residence in Deoghar



Source: Census 2011

Deoghar has 2200 schools with enrolment of about 3.10 lakhs⁹⁷ in primary and upper primary. Enrolment in Government schools account for 97.55% of total enrolment. 76.8% of the students attend upper primary schools after primary education. On the other hand Deoghar has 85 secondary and higher secondary schools with enrolment of about 0.39 lakhs only.

Deoghar has no institute offering AICTE accredited programs/ professional courses. In terms of vocational training infrastructure, Deoghar has Government Industrial Training Institute and 12 private Industrial Training Centre. Major trades offered in the Government ITI are Mechanic General Electronics, fitter, electrician, wiremen, Mechanic Motor vehicle, Draftsman mechanic, welder and hair & skin care.

Table 4.23– Educational infrastructure in Deoghar

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	5	500	National Council for Teacher Education
ITIs - Government	1	399	Ministry of Labour, Jharkhand
ITCs - Private	12	3776	Ministry of Labour, Jharkhand

Deoghar has limited participation of private sector players engaged in skill development. One such player is Brainware Computer Training Centre which imparts vocational training in IT and computer hardware in Deoghar.

⁹⁵ Census of India, 2011

⁹⁶ Census of India, 2001

⁹⁷ DISE, 2010-11

4.3.4. Employment Profile

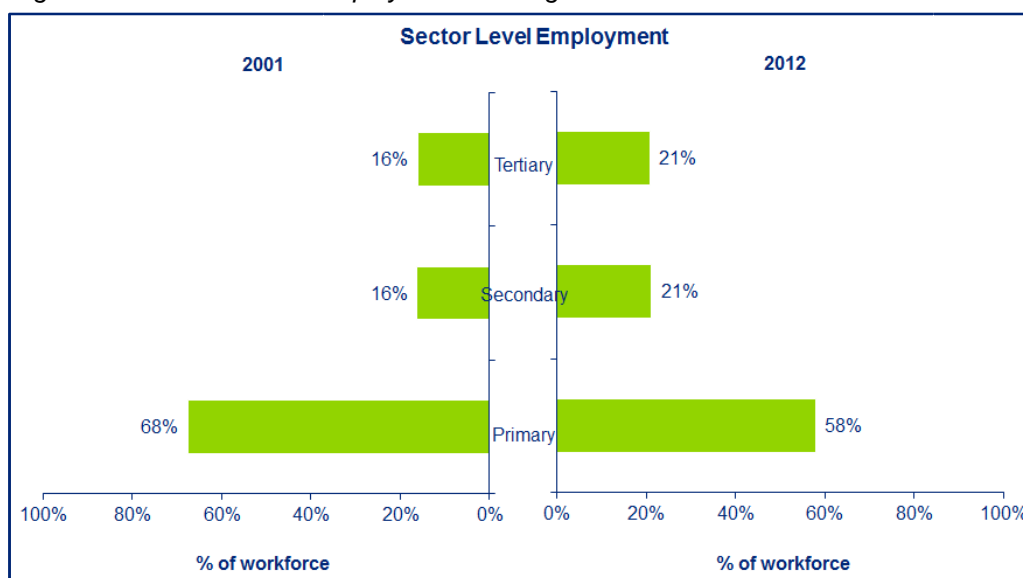
The work participation rate of Deoghar was 37.1% which is lower than the state average of 37.5%⁹⁸. Total workforce is expected to increase to 5.49 lakhs in 2012.

Table 4.24– Employment profile in Deoghar

Employment Profile (In Lakhs)	2001 ⁹⁹	2012 ¹⁰⁰
Total Population	11.65	15.29
Working Age Population	6.13	9.21
Labour Force	4.40	6.12
Workforce	4.30	5.49

About 68% of the workers in Deoghar district were engaged in primary sector in 2001, which is estimated to decrease to about 58% in 2012 on account of increase in opportunities in secondary and tertiary sectors¹⁰¹.

Figure 4.26– Sector level employment in Deoghar



4.3.5. Skill Gap Assessment

The population of Deoghar in 2011 was about 14.92 lakhs which is expected to increase to about 17.30 lakhs in 2017 and about 19.58 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 2.46 lakhs.

⁹⁸ Census of India, 2011

⁹⁹ Census of 2001

¹⁰⁰ Deloitte Analysis

¹⁰¹ Deloitte Analysis

Table 4.25– Estimated workforce of Deoghar

Estimated Work Force			
	2011	2017	2022
Population	14,91,879	17,30,217	19,57,670
Working age population	8,98,992	10,82,424	12,69,764
Available Labour Force	5,96,947	7,18,749	8,43,146
Projected Work Force	5,34,098	6,23,656	6,96,203
Incremental manpower supply (2012-22)	2,46,199		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.26– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	5,128	5,713	10,842
Semi-Skilled	10,231	8,097	18,328
Minimally skilled	1,06,443	1,10,586	2,17,029

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand will be about 1.62 lakhs including 0.78 lakhs in organized sectors and 0.84 lakhs in unorganized sectors.

More than 50% of the incremental manpower demand is expected to come from unorganized sector including agriculture and allied activities. The manpower demand in the organized sector is expected to be primarily driven by food processing, building construction and tourism hospitality and travel trade.

The secondary sector which contributes about 47.8% of the GDDP is expected to continue its growth as more than 50% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by food processing industry, fabricated metal products and Non-Metallic Mineral Products.

Tertiary sector which contributes about 40.6% of the GDDP is anticipated to continue its growth driven by tourism, hospitality and trade. Growth in construction activities is expected to have a positive effect on the demand of real estate services.

Table 4.27– Incremental manpower demand in Deoghar in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ¹⁰²	13	42	369	10	33	284
Mining and Quarrying	18	36	126	13	26	91
Total (I)	31	79	496	23	59	375
Secondary Sector						
Fabricated Metal Products	845	2534	845	686	2057	686
Non Metallic Mineral Products	73	218	73	59	177	59
Automobile/ Auto components	89	115	51	73	93	41
Electricity, Gas & Water Supply	21	29	33	15	21	25
Textile and Garments	15	30	251	12	24	204
Leather and Leather Goods	5	5	89	4	4	72
Chemical & Pharmaceuticals	26	43	17	21	35	14
Other Manufacturing	59	98	236	48	80	192
Building and Construction	695	1739	4520	545	1363	3545
Food Processing/ Cold Chain/ Refrigeration	546	1638	8736	443	1329	7090
Wood / Wooden based furniture	13	13	234	11	11	190
Total (II)	2386	6462	15085	1916	5194	12116
Tertiary Sector						
IT/ ITES-BPO services	18	8	1	35	16	3
Tourism Hospitality and Travel Trade	2785	2785	1393	2041	2041	1020
Transportation & Logistics/ warehousing/ packaging	266	532	1863	216	433	1514
Organized Retail	0	0	0	0	0	0
Real Estate Services	652	652	1303	637	637	1275
Media & Entertainment	521	469	52	431	388	43
Healthcare Services	215	1500	0	37	266	0
Banking Insurance & Finance	1595	188	94	1739	205	102
Education/ Skill Development Services	1325	928	0	1537	541	0
Total (III)	7377	7062	4706	6673	4526	3957
Grand Total (I+II+III)	9794	13602	20287	8612	9776	16449
Total Incremental Demand	78522					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.84 lakhs in the next 10 years.

Table 4.28– Incremental manpower demand in Deoghar in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	37,834	29,086
Drivers	1,752	2,342
Domestic help	2,107	2,011
Security Guards	1,202	1,147
Others	3,133	3,986
Total	46,028	38,572
Total Incremental Demand – Unorganized Sectors	84,600	

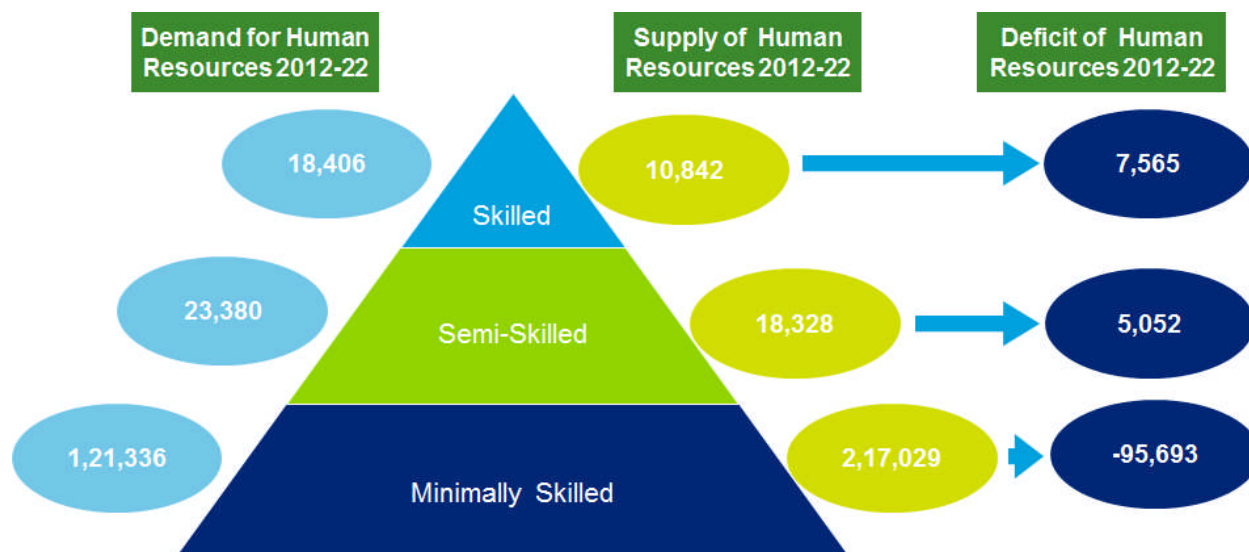
¹⁰² Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.83 lakhs¹⁰³, indicating an excess of supply.

Figure 4.27– Incremental manpower gap in Deoghar



Qualitative Skill Gaps

Table 4.29– Qualitative skill gaps in high demand sectors in Deoghar

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of vernacular languages - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques
Mineral based	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills

¹⁰³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

		<ul style="list-style-type: none"> - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills

4.3.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students, with whom we interacted, aspire of getting government jobs especially in Indian railways
- Some of the students especially from electrical and mechanic trades want to start their own businesses
- Majority of the students were of the opinion that the institutes should provide coaching for competitive examinations along with technical courses
- Due to paucity of local industries, majority of vocationally trained students migrate to other districts/ states for getting a job
- Lack of sufficient number of instructors along with outdated machinery & equipment in workshops was cited as one of the primary reasons for lack of practical trainings in the institutes
- Some of the students underlined the importance of computer training for getting jobs

Students of the ITI highlighted outdated machinery in workshops for lack of practical trainings.

Source: Focus Group Discussion, Deoghar

4.3.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Mineral products (ii) Food Processing
- Priority industries for skill development in tertiary sector are (i) Tourism, Hospitality & Travel Trade (ii) Real Estate Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Deoghar, the proposed action plan would consist of the following priority areas:

Table 4.30– Recommendations and action points for Deoghar

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> Food processing Tourism, hospitality & travel Building & construction
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> Real estate services Building & construction Fabricated metal products Update machinery & provide manuals in workshops for practical classes Develop courses for emerging sectors like <ul style="list-style-type: none"> Food processing Tourism, hospitality & travel Focus on developing communication skills & basic IT skills of the students Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> Engage with industry players like Coal India & Power Finance Corporation and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> Sericulture Lac cultivation Medicinal & aromatic plants Focus on supporting creation of micro-enterprises in food processing and services sector such as hotels & restaurants, coaching institutes etc. in the district Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes
Industry	<ul style="list-style-type: none"> Collaborate with skill development institutes for updating course content & creating linkages for placement Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> Food processing Tourism, hospitality & travel

4.4 Godda

Goddafalls in the Santhal Parganas division of the state of Jharkhand. It is bounded by the district of Sahebganj in the north , Dumka in the south , Pakur in the east and Banka and Bhagalpur districts of Bihar state in the west. The district is spread over 231.84 thousand hectares which constitutes about 3% of total geographical area of Jharkhand. Godda has one Sub-Division, Godda, and 8 blocks - Boarijore, Godda, Mahagama, Meharama, Pathargama, Poraiyahat, Sunderpahari and Thakurgangti . Godda is the district headquarters.

4.4.1. Demography

Godda has a population of 13.11 lakhs as of 2011 of which about 5.3% reside in urban areas¹⁰⁴. The urban population of Godda is much lower in comparison to the state average. The district is densely populated with 622 persons per sq. km. in comparison to the state average of 414¹⁰⁵. The district has a higher sex ratio than the state.

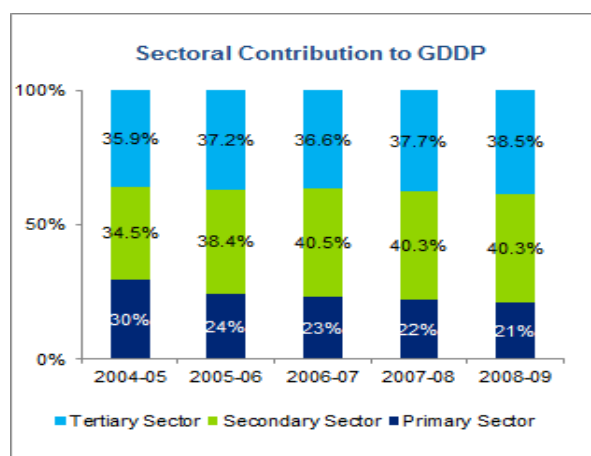
Table 4.31– Demography of Godda

Demography	Godda	Jharkhand
Population (2011)	13,11,382	3,29,66,238
Decadal Population Growth Rate (2001-11)	25.14%	22.34%
Population density per sq. km (2011)	622	414
Sex Ratio (2011)	953	947
Percentage of Urban Population (2011)	5.3%	24%
Percentage of SC population (2001)	8.6%	11.8%
Percentage of ST population (2001)	23.6%	26.3%

4.4.2. Economic Profile

Gross District Domestic Product (GDDP) of Godda has grown at a lower growth rate (CAGR) of 6.45% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period¹⁰⁶. Secondary sector contributes about 40.3% of the GDDP primarily on account of contribution coming from manufacturing activities.

Figure 4.28– Sector level contribution to GDDP of Godda



Source: Directorate of Economics & Statistics, Jharkhand

¹⁰⁴ Census of India, 2011

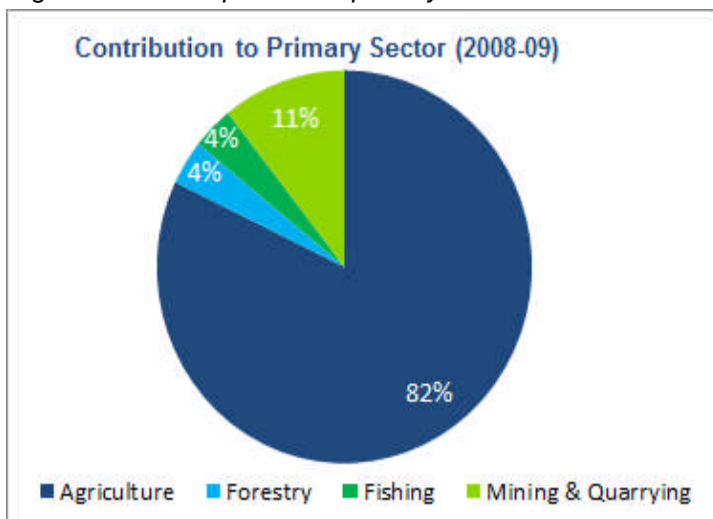
¹⁰⁵ Census of India, 2011

¹⁰⁶ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 21% to the GDDP in 2008-09¹⁰⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of increasing contribution of secondary & tertiary sectors.

Figure 4.29– Composition of primary sector of Godda



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Abundance of pastureland in the district promotes dairy farming
- Rearing of sheep/goat and piggery is also widely practiced
- Poultry farming and inland fisheries is also practiced in addition to agricultural activities
- Eastern Coalfields Limited has a subsidiary in the district.

The main economic activity of Godda district is agriculture. Rice being the staple food and land being low lying and rain-fed, paddy is the principal crop. In addition, maize, wheat, oilseeds, potato, pulses etc. are also grown. Agriculture is practiced at a subsistence level and other allied activities such as dairy farming, poultry farming and rearing of sheep/goat and pigs provide for additional support to the agrarian economy of the district.

Godda is rich in Tassar, Eri & Mulberry plantations. Tassar culture is primarily practised in the unorganized sector. Similarly Eri culture, where rearing of silk worm is carried on castor plants, is also done in unorganized sector. The Jharkhand Khadi & Village Industry Board is planning to set up a training centre cum Tassar/Silk Park at Godda and Chaibasa¹⁰⁸. The Ministry of Textiles, Government of India is implementing an Rs.1,000 Million Godda Mega Handloom Cluster Project.¹⁰⁹

Though the district is an agricultural district but it is rich in mineral wealth also. Coal and Black Stone are the major minerals of the district. The production of Coal in the year 2010-2011 was 18 M.T.¹¹⁰. The coal mines are concentrated in BoarijorePrakhand are managed by Rajmahal Coal Project (R.C.P.) a subsidiary of ECL. Coal deposits are also found inSunderpahariPrakhand.

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 40.3%¹¹¹. The sector has registered a CAGR of 10.65% between 2004-05 and 2008-09 primarily on account of growth in

¹⁰⁷ Directorate of Economics and Statistics, Jharkhand

¹⁰⁸ Science & Technology Manpower Assessment Study (11th Plan period) by XLRI, Jamshedpur

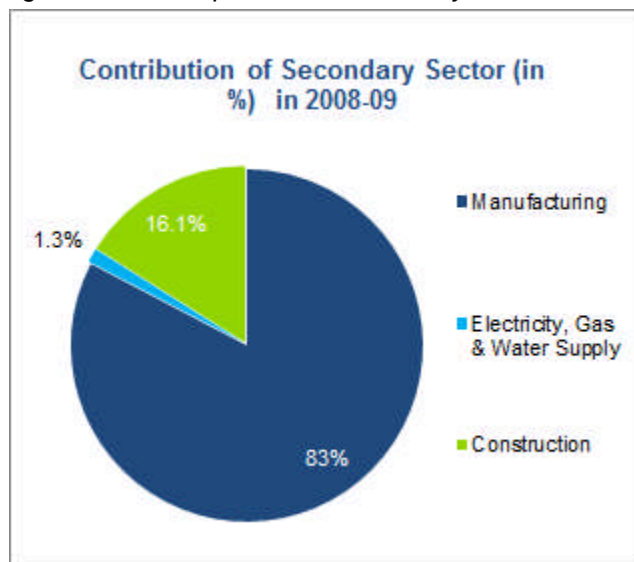
¹⁰⁹ CMIE database

¹¹⁰ District industrial Profile, MSME

¹¹¹ Directorate of Economics and Statistics, Jharkhand

manufacturing activities. Manufacturing activities contributed about 83% of the contribution of the secondary sector to the GDDP.¹¹²

Figure 4.30– Composition of secondary sector of Godda



Source: Directorate of Economics & Statistics, Jharkhand

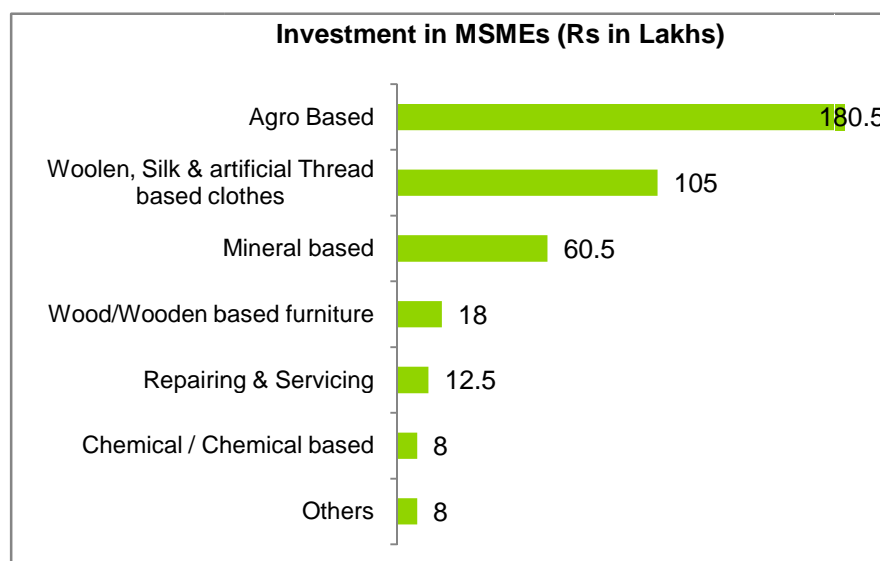
Secondary Sector - Highlights

- The Food processing industry has the maximum share in the industrial production of Godda at 33.07% contribution.
- However, maximum employment is generated by Apparel industry accounting for 22.07% of industrial workers. It is followed by Tobacco products and Food processing accounting for 20.14% and 14.38%, respectively

Source: Jharkhand Development Report 2012

Food processing industry has the maximum share in the industrial production of Godda followed by non-metallic minerals products. The district is rich in coal deposits has immense potential for coal based power plants. Currently, Jindal Steel & Power Limited is implementing a 660 MW coal-fired power station at Godda.¹¹³ Godda has large number of small scale industries engaged in brick manufacturing, milk products and gur manufacturing, bamboo wares, bakeries, carpentry, iron smithy & automobile workshops.

Figure 4.31– Investments in MSME sector of Godda



Source: District Industrial Profile, DC-MSME

¹¹² Directorate of Economics and Statistics, Jharkhand

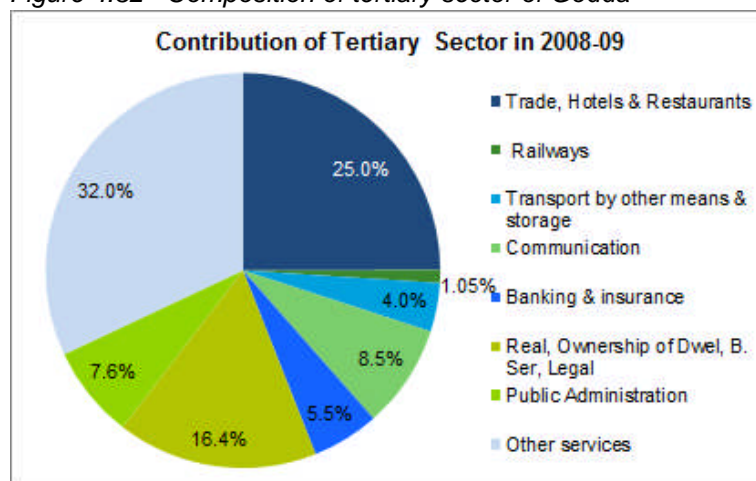
¹¹³ Chairman's Message, Jindal Steel & Power Limited website (2nd March, 2013)

One of the major draw-back of the district is its poor connectivity as the district is not situated on a rail route. Jasidih railways station is at a distance of 80 Kilometres and Bhagalpur Railways station of Bihar state is 65 Kilometres away.

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 38.5 % in 2008-09¹¹⁴. The sector has registered a CAGR of 8.33% between 2004-05 and 2008-09. Key contributors to the sector include trade, real estate services and communication. Apart from the major contributors to the sector, Banking & Insurance have grown by 13.87% in the period between 2004-05 and 2008-09 respectively.

Figure 4.32– Composition of tertiary sector of Godda



Source: Directorate of Economics & Statistics, Jharkhand

Godda is an important destination for trade and commerce with wholesale trading in foodgrains being carried out in the district. The main imports of the districts are linseed, mustard seed, tobacco, raw cotton, sugar, refined and unrefined molasses, salt, kerosene oil, coal, coke, gunny bags, gram, wheat and maize. The main exports are paddy, jawar, sabai, grass, stone chips, hides and fibres.

Future Growth Opportunities in Godda

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.32– Focus sectors and growth opportunities in Godda

Sector/ Industry	Growth Opportunities
Agro-based	Godda has immense potential in this sector. The climate and geographical location of the district makes the following activities conducive: <ul style="list-style-type: none"> Plantation & Horticulture Sericulture Forestry & Wasteland Development Dairy/Poultry/Fisheries Development
Textiles - Woollen, Silk & artificial Thread based clothes	Ministry of Textile and Jharkhand Khadi& Village Industry Board (JKVIB) have taken steps for setting up projects to harness the sericulture potential. The silk industry is likely become the backbone of Godda's economy
Power plants	The district is extremely rich in coal and holds immense potential for power related projects
Food Processing	Food processing sector has the highest contribution to industrial output of the

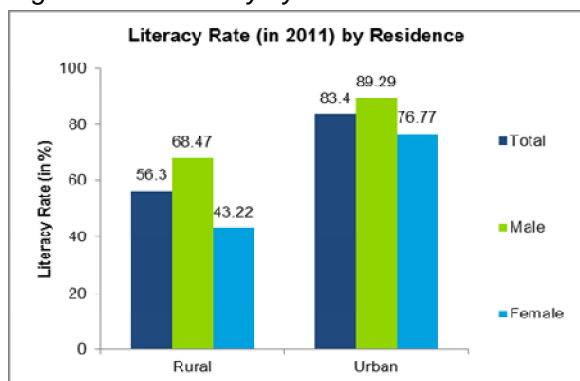
¹¹⁴ Directorate of Economics and Statistics, Jharkhand

Sector/ Industry	Growth Opportunities
	district and is expected to continue to grow in future

4.4.3. Education

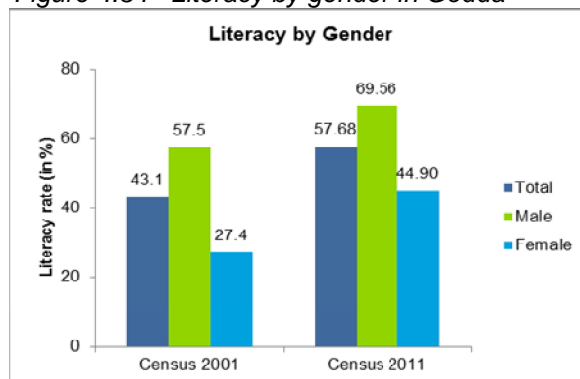
Godda has a much lower literacy rate of 57.68% in comparison to state average of 67.63%¹¹⁵. It marks significant improvement over literacy rate of 43.1% 2001¹¹⁶. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.33– Literacy by residence in Godda



Source: Census 2011

Figure 4.34– Literacy by gender in Godda



Source: Census 2001 & 2011

Godda has 1872 schools with enrolment of about 2.72 lakhs¹¹⁷ in primary and upper primary. Enrolment in Government schools account for 90.56% of total enrolment. 69.2% of the students attend upper primary schools after primary education. On the other hand Godda has 124 secondary and higher secondary schools with enrolment of about 0.46 lakhs only.

Godda doesn't have any AICTE accredited professional institute offering courses in engineering/technology, architecture, hotel management, pharmacy etc. In terms of vocational training infrastructure, Godda has no Government Industrial Training Institute. However it has one private Industrial Training Centre run by Jindal Steel & Power Limited. Godda has a presence of private vocational training providers such as Asian Pacific iLearn Training centre which run training programmes in the field of IT/ ITeS.

Table 4.33– Educational infrastructure in Godda

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	1	100	National Council for Teacher Education
ITIs – Government	-	-	Ministry of Labour, Jharkhand
ITCs – Private	1	252	Ministry of Labour, Jharkhand
Government Polytechnics	-	-	Department of Science and Technology, Jharkhand
Private Polytechnics	-	-	AICTE list of accredited institutes

¹¹⁵ Census of India, 2011

¹¹⁶ Census of India, 2001

¹¹⁷ DISE, 2010-11

4.4.4. Employment Profile

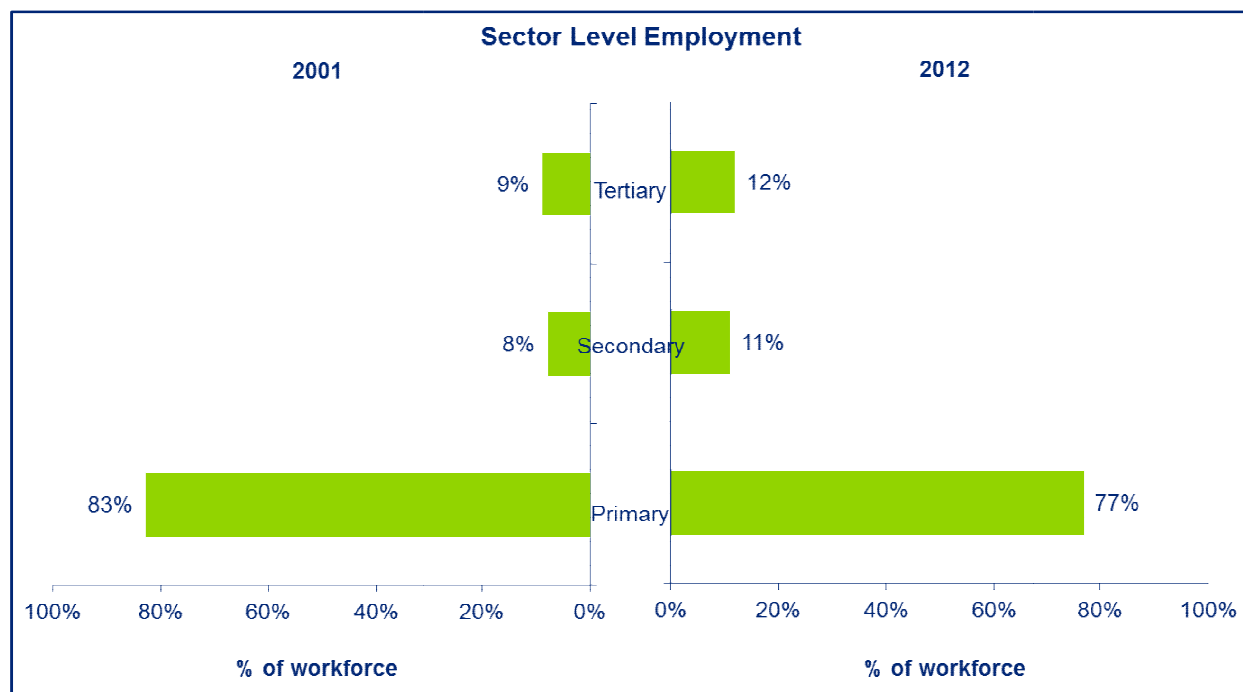
The work participation rate of Godda was 40.3% which is higher than the state average of 37.5%¹¹⁸. Total workforce is expected to increase to 5.26 lakhs in 2012.

Table 4.34– Employment profile in Godda

Employment Profile (In Lakhs)	2001 ¹¹⁹	2012 ¹²⁰
Total Population	10.47	13.41
Working Age Population	5.57	8.09
Labour Force	4.29	5.78
Workforce	4.22	5.26

About 83% of the workers in Godda district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 77% in 2012 on account of increase in opportunities in secondary and tertiary sectors¹²¹.

Figure 4.35– Sector level employment in Godda



4.4.5. Skill Gap Assessment

The population of Godda in 2011 was about 13.11 lakhs which is expected to increase to about 15.00 lakhs in 2017 and about 16.78 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 2.07 lakhs.

¹¹⁸ Census of India, 2011

¹¹⁹ Census of 2001

¹²⁰ Deloitte Analysis

¹²¹ Deloitte Analysis

Table 4.35– Estimated workforce of Godda

Estimated Work Force			
	2011	2017	2022
Population	13,11,382	15,00,262	16,78,282
Working age population	7,91,273	9,35,670	10,80,737
Available Labour Force	5,65,419	6,68,601	7,72,262
Projected Work Force	5,13,191	5,90,820	6,53,082
Incremental manpower supply (2012-22)	2,06,843		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.36– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	2,819	3,329	6,149
Semi-Skilled	2,169	1,359	3,528
Minimally skilled	98,193	98,973	1,97,166

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 1.40 lakhs including 0.43 lakhs in organized sectors and 0.97 lakhs in unorganized sectors.

More than two-third of the incremental manpower demand is expected to come from unorganized sector including agriculture and allied activities. The manpower demand in the organized sector is expected to be primarily driven by food processing, building & construction, textiles, education & skill development and tourism hospitality and travel trade.

The secondary sector which contributes about 40.3% of the GDDP is expected to continue its growth as more than 50% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by food processing industry, mineral based products, textiles and building & construction.

Tertiary sector which contributes about 38.5% of the GDDP is anticipated to continue its growth driven by tourism, hospitality and trade, education & skill development services and business services. Growth in construction activities is expected to have a positive effect on the demand of real estate services.

Table 4.37– Incremental manpower demand in Godda in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ¹²²	16	53	457	12	40	351
Mining and Quarrying	241	481	1685	188	376	1317
Total (I)	257	534	2142	200	416	1668
Secondary Sector						
Metallic Products	198	594	198	163	490	163
Non Metallic Mineral Products	368	1103	368	303	910	303
Textile and Garments	98	196	1664	81	162	1373
Chemical & Pharmaceuticals	40	66	26	33	54	22
Other Manufacturing	92	154	369	76	127	305
Building and Construction	313	782	2034	236	590	1534
Food Processing/ Cold Chain/ Refrigeration	153	459	2449	126	379	2022
Wood / Wooden based furniture	14	14	247	11	11	204
Total (II)	1276	3368	7355	1029	2723	5926
Tertiary Sector						
IT/ ITES-BPO services	14	-	-	28	13	-
Tourism Hospitality and Travel Trade	1142	1142	571	810	810	405
Transportation & Logistics/ warehousing/ packaging	32	63	222	25	50	175
Real Estate Services	472	472	944	430	430	859
Media & Entertainment	328	295	33	281	253	28
Healthcare Services	177	1071	0	29	208	0
Banking Insurance & Finance	446	53	26	421	50	25
Education/ Skill Development Services	897	1062	0	937	229	0
Total (III)	3508	4158	1796	2961	2043	1492
Grand Total (I+II+III)	5041	8060	11293	4190	5182	9086
Total Incremental Demand	42,905					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.97 lakhs in the next 10 years.

Table 4.38– Incremental manpower demand in Godda in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	46,818	35,993
Drivers	532	669
Domestic help	1,832	1,727
Others	4,117	5,445
Total	53,300	43,833
Total Incremental Demand – Unorganized Sectors	97,133	

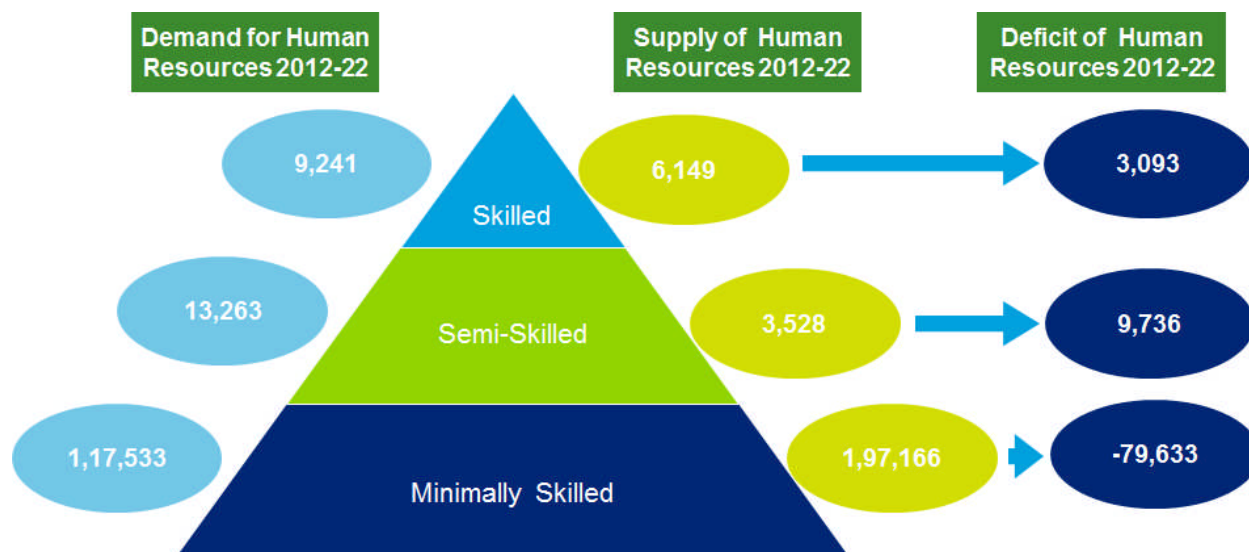
¹²² Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.67 lakhs¹²³, indicating an excess of supply.

Figure 4.36– Incremental manpower gap in Godda



Qualitative Skill Gaps

Table 4.39– Qualitative skill gaps in high demand sectors in Godda

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of vernacular languages - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques
Iron & Steel/	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills

¹²³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Engineering Units/ Non-metallic mineral products		<ul style="list-style-type: none"> - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Textile & garments	Operator	<ul style="list-style-type: none"> - Skill confined to single or few machines - Lack of knowledge of quality compliance - Lack of ability to plan and multitask
	Sales executive	<ul style="list-style-type: none"> - Lack of negotiation skills - Inadequate communication and networking skills

4.4.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Majority of the participants of the FGD conducted in the district aspire to get admission in ITIs/ ITCs. However, lack of institutes in the district along with high fees and lack of transport facility are key constraints in access to vocational training.
- Electrician and fitter trades are the most sought after trades among the youth in the district as they expect a demand for electricians and fitters in large companies in the state. Some of these students want to start their own business.
- Most of the students want to work in the district. However, as the district has very limited employment opportunities, they migrate to other states/ districts in Jharkhand.
- One of the ambitions of the students is to work for railways especially as engine drivers. Other sectors in which the students want to work are electricity and mining.

Youth in the district migrate to other districts/ states due to lack of training institutes and employment opportunities.

Source: Focus Group Discussion, Godda

4.4.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Food Processing (ii) Textile & garments (iii) Building & construction
- Priority industries for skill development in tertiary sector are (i) Tourism, Hospitality & Travel Trade (ii) Real Estate Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Godda, the proposed action plan would consist of the following priority areas:

Table 4.40– Recommendations and action points for Godda

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players, including private

	<p>sector with focus on the following sectors:</p> <ul style="list-style-type: none"> - Food processing - Textile & garments - Tourism, hospitality & travel - Building & construction
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Real estate services - Textile & garments - Mineral based products • Update machinery & provide manuals in workshops for practical classes • Develop courses for emerging sectors like <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel • Focus on developing communication skills & basic IT skills of the students • Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> • Establish cluster based training initiatives in PPP mode for sourcing workers for handloom cluster and other small scale industries in the district • Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> - Sericulture - Plantation - Fisheries • Focus on supporting creation of micro-enterprises in food processing textiles sector in the district • Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA • Engage with local industry players and industry associations like CII to develop vocational training curriculum with focus on increasing employability of students
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel

4.5 Pakur

Pakur district is located in the eastern portion of Rajmahal hills. It is bounded by Sahibganj in the north, Dumka & West Bengal in the south, West Bengal in the east and Godda in the west. The district is spread over 181.70 thousand hectares which constitutes about 2% of total geographical area of Jharkhand. Pakur has been divided into 6 blocks ie. Pakur, Pakuria, Hiranpur, Littipara, Amrapara and Maheshpur.

4.5.1. Demography

Pakur has a population of 8.99 lakhs as of 2011 of which about 7.5% reside in urban areas¹²⁴. The urban population of Pakur is much lower in comparison to the state average. The district is slightly densely populated with 498 persons per sq. km. in comparison to the state average of 414¹²⁵. The district has a higher sex ratio than the state.

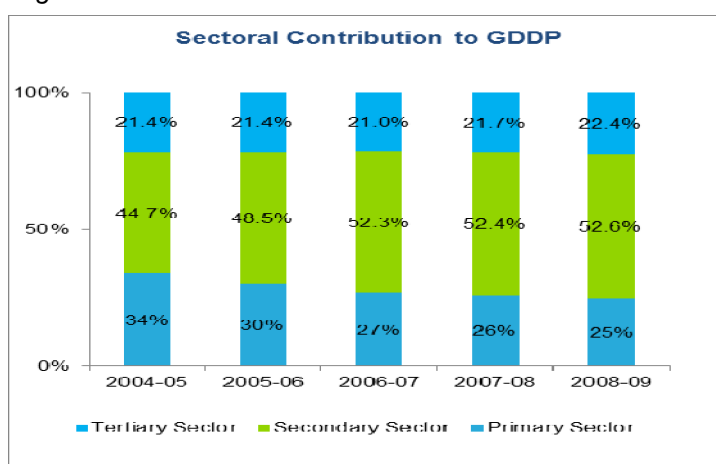
Table 4.41– Demography of Pakur

Demography	Pakur	Jharkhand
Population (2011)	8,99,200	3,29,66,238
Decadal Population Growth Rate (2001-11)	28.15%	22.34%
Population density per sq. km (2011)	498	414
Sex Ratio (2011)	985	947
Percentage of Urban Population (2011)	7.5%	24%
Percentage of SC Population (2001)	3.2%	11.8%
Percentage of ST Population (2001)	44.5%	26.3%

4.5.2. Economic Profile

Gross District Domestic Product (GDDP) of Pakur has grown at a lower growth rate (CAGR) of 6.6% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period¹²⁶. Secondary sector contributes about 52.6% of the GDDP primarily on account of contribution coming from manufacturing activities.

Figure 4.37– Sector level contribution to GDDP of Pakur



Source: Directorate of Economics & Statistics, Jharkhand

¹²⁴ Census of India, 2011

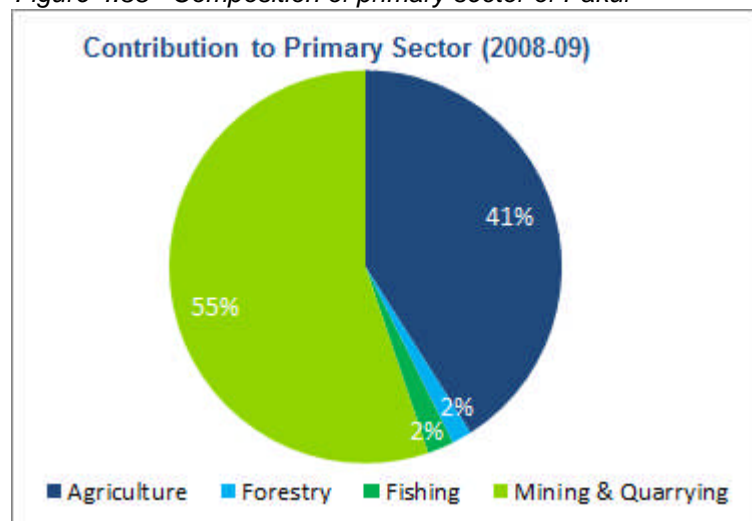
¹²⁵ Census of India, 2011

¹²⁶ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 25% to the GDDP in 2008-09¹²⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of increasing contribution of secondary & tertiary sectors.

Figure 4.38– Composition of primary sector of Pakur



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Mining and Quarrying is the highest contributor to the primary sector. The district has abundant reserves of coal and Blackstone
- Agriculture is supplemented by cottage industries
- Allied activities like dairy, poultry, sheep/goat/pig rearing & fishery common in rural areas

Source: District Agriculture Plan, NABARD Consultancy Services

Out of the total net sown area of 52721 hectares in the district, only about 25% has irrigation facilities¹²⁸. The Government of Jharkhand is taking several steps to improve the irrigation facilities in the district. It has invested Rs. 626 Million in Torai reservoir¹²⁹ which is likely to complete by 2014.

Mining and Quarrying contributes about 55% to the primary sector in the district. The district is rich in Black stone reserves. It has a large number of stone mines and crushers with approximately 500 mines and 800 crushers¹³⁰ in operation and employing a huge labour force. Black stones of Pakur are of superior quality and are also exported to the South Asian countries. Coal, china clay, fireclay, quartz, and silica sand and glass sand are among the other minerals found in the district.

Since last decade there has been an increase in activities related to coal excavation in the district. Currently one block of coal mine has been allotted to the Punjab State Government for their captive Thermal Power Plants. The excavation work on behalf of the Punjab State Government is being done by Panem Coal mines limited¹³¹.

Rice being the staple food and land being low lying and rain-fed, paddy is the principal crop of the district. It is also suitable for Wheat, Gram, Masoor and Mustard. Commercial crops like jute, sugarcane, onion and potato are also grown here. Orchards are maintained for the production of fruits such as mango, papaya, guava and Jackfruits, etc.

Agriculture is mostly practiced at a subsistence level and other allied activities such as dairy farming, poultry farming and rearing of sheep/goat and pigs provide for additional support to the agrarian economy of the district.

¹²⁷ Directorate of Economics and Statistics, Jharkhand

¹²⁸ District Agriculture Plan-Pakur (2008-09 to 2011-12), NABARD Consultancy Services

¹²⁹ CMIE database

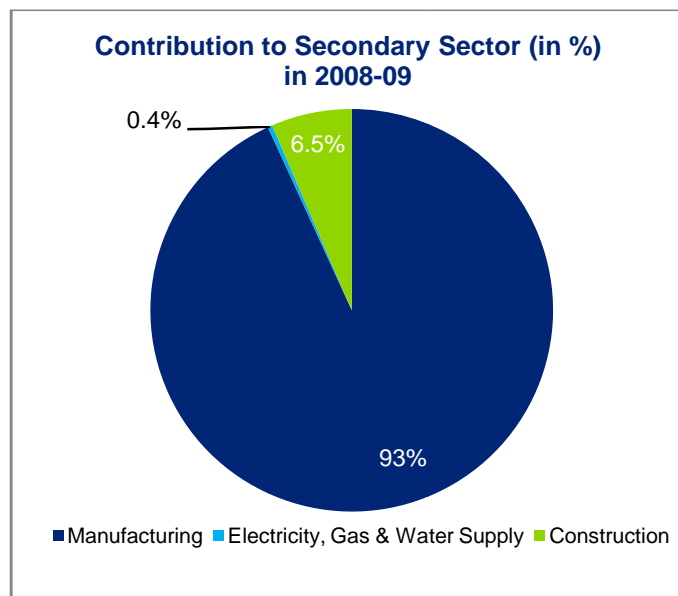
¹³⁰ Pakur District website

¹³¹ India Environment portal

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 52.6%¹³². The sector has registered a CAGR of 11.08% between 2004-05 and 2008-09 primarily on account of growth in manufacturing activities. Manufacturing activities contributed about 93% of the contribution of the secondary sector to the GDDP.¹³³

Figure 4.39– Composition of secondary sector of Pakur



Source: Directorate of Economics & Statistics, Jharkhand

- The Non-metallic mineral products have the maximum share in the industrial production of Pakur at 27.64% contribution. It is followed by Tobacco products & Food processing industry at 25.46% and 17.94%, respectively
- However, maximum employment is generated by Tobacco/Food Processing industry accounting for 95.75% of industrial workers. It is followed by Non-metallic mineral products and Beverages accounting for 1.86% and 0.59%, respectively

Source: Jharkhand Development Report 2012

Manufacturing has the maximum contribution to the secondary sector of the district. It is famous for stone and Beedi (Biri) making industry, and is one of the highest revenue-earning districts of the state of Jharkhand. Agro based cottage industries like paddy thrashing, leaflet making and bamboo baskets making also are major contributor to the secondary economy of the district. Mineral based small scale units have seen the highest investment MSME sector in the district.

Figure 4.40– Investments in MSME sector of Pakur



Source: District Industrial Profile, DC-MSME

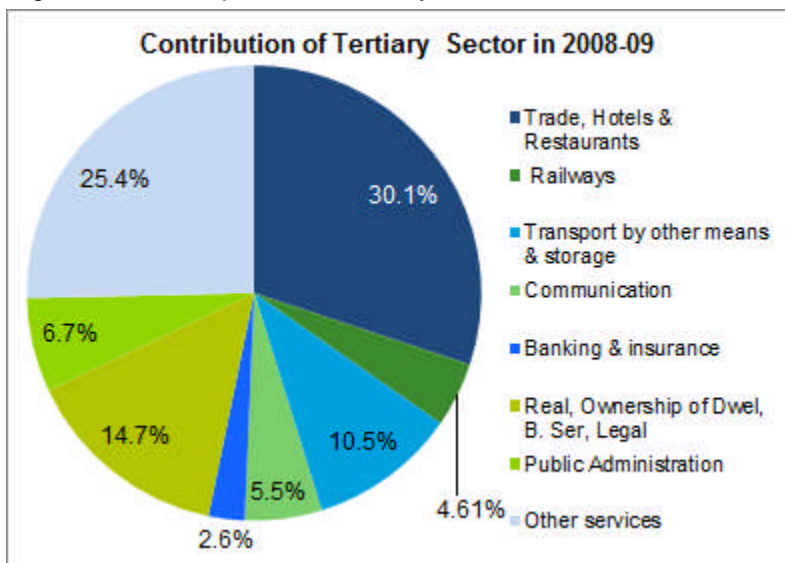
¹³² Directorate of Economics and Statistics, Jharkhand

¹³³ Directorate of Economics and Statistics, Jharkhand

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 22.4 % in 2008-09¹³⁴. The sector has registered a CAGR of 7.82% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; Real Estate services and Transport & storage.

Figure 4.41– Composition of tertiary sector of Pakur



Source: Directorate of Economics & Statistics, Jharkhand

The major contributors to the sector, trade, hotel and restaurants; Real Estate services and Transport & storage have grown by CAGR 5.48%, 9.73% and 8.79% in the period between 2004-05 and 2008-09 respectively.

The district offers excellent tourism options to tourists. The prominent tourist places include Siddhu-Kanhu Park, Devinagar, Hot Spring, Kanchangarah, NityakaliMandir, Shiv SheetlaMandir, Mahakal Shakti Pith, Diwan-e-Pir and Dharni-Pahar.

Future Growth Opportunities in Pakur

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.42– Focus sectors and growth opportunities in Pakur

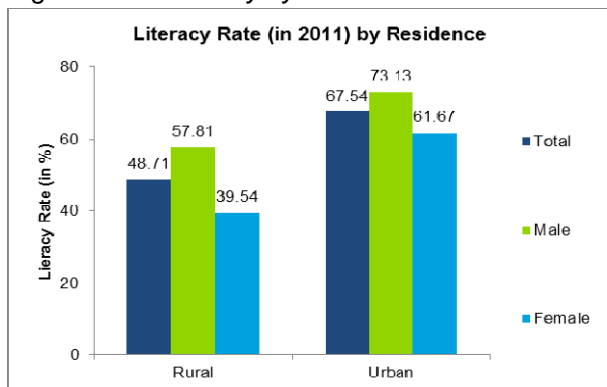
Sector/ Industry	Growth Opportunities
Agro-based	<p>Pakur has immense potential in this sector. The climate and geographical location of the district makes the following activities conducive:</p> <ul style="list-style-type: none"> • Plantation & Horticulture • Sericulture • Forestry & Logging • Dairy/Poultry/Fisheries Development • Food processing based MSMEs
Mineral Products	<p>Mining and Quarrying is the highest contributor to the primary sector of Pakur. It is rich in good quality black stone & coal. With further improvement in infrastructure this sector can grow at a faster rate in future.</p>
Tourism	<p>Pakur is a picturesque hilly district and has the potential to be developed as an eco-tourism destination.</p>

¹³⁴ Directorate of Economics and Statistics, Jharkhand

4.5.3. Education

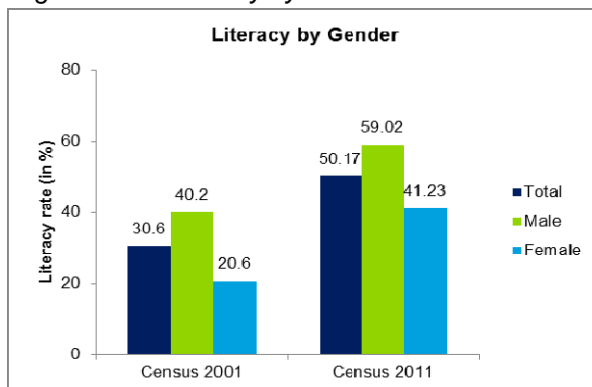
Pakur has a lower literacy rate of 50.17% in comparison to state average of 67.63%¹³⁵. It marks significant improvement over literacy rate of 30.6% 2001¹³⁶. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.42– Literacy by residence in Pakur



Source: Census 2011

Figure 4.43– Literacy by residence in Pakur



Source: Census 2001, Census 2011

Pakur has 1047 schools with enrolment of about 1.70 lakhs¹³⁷ in primary and upper primary. Enrolment in Government schools account for 94.1% of total enrolment. 69.4% of the students attend upper primary schools after primary education. On the other hand Pakur has 54 secondary and higher secondary schools with enrolment of about 0.23 lakhs only.

Pakur has no institute offering AICTE accredited programs/ professional courses. In terms of vocational training infrastructure, Pakur has one Government Industrial Training Institute but has no private Industrial Training Centre. Pakur has very limited presence of private vocational training providers.

Table 4.43– Educational infrastructure in Pakur

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	1	100	National Council for Teacher Education
ITIs – Government	1	399	Ministry of Labour, Jharkhand

¹³⁵ Census of India, 2011

¹³⁶ Census of India, 2001

¹³⁷ DISE, 2010-11

4.5.4. Employment Profile

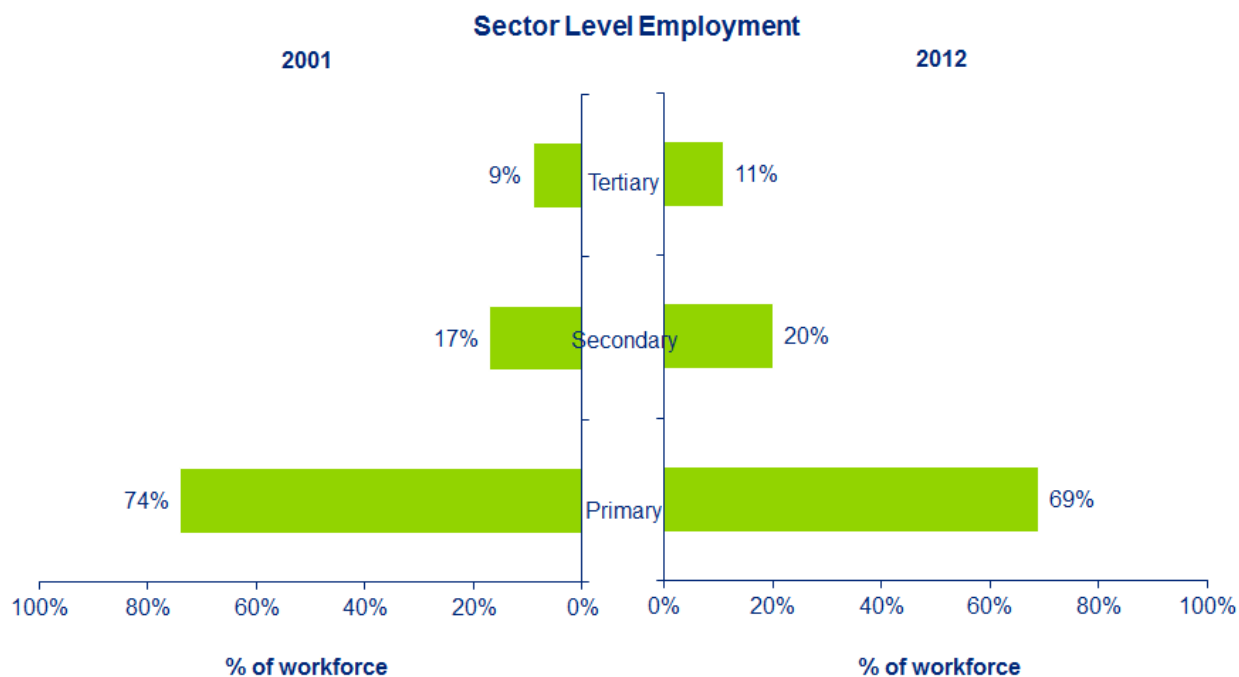
The work participation rate of Pakur was 44.1% which is higher than the state average of 37.5%¹³⁸. Total workforce is expected to increase to 4.28 lakhs in 2012.

Table 4.44– Employment profile in Pakur

Employment Profile (In Lakhs)	2001 ¹³⁹	2012 ¹⁴⁰
Total Population	7.01	9.22
Working Age Population	3.73	5.61
Labour Force	3.17	4.29
Workforce	3.09	4.27

About 74% of the workers in Pakur district were engaged in primary sector in 2001, which is estimated to decrease to about 69% in 2012 on account of increase in opportunities in secondary and tertiary sectors¹⁴¹

Figure 4.44– Sector level employment in Pakur



¹³⁸ Census of India, 2001

¹³⁹ Census of 2001

¹⁴⁰ Deloitte Analysis

¹⁴¹ Deloitte Analysis

4.5.5. Skill Gap Assessment

Manpower Supply

The population of Pakur in 2011 was about 8.99 lakhs which is expected to increase to about 10.43 lakhs in 2017 and about 11.81 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.73 lakhs.

Table 4.45– Estimated workforce of Pakur

Estimated Work Force			
	2011	2017	2022
Population	8,99,200	10,43,487	11,81,262
Working age population	5,46,938	6,59,243	7,74,068
Available Labour Force	4,18,917	4,88,897	5,92,883
Incremental manpower supply (2012-22)	1,73,966		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.46– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	2904	3468	6371
Semi-Skilled	2075	1422	3497
Minimally skilled	81039	83,058	164097

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand is about 0.92 lakh including 0.61 lakh in organized sectors and 0.31 lakhs in unorganized sector.

Table 4.47– Incremental manpower demand in Pakur in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ¹⁴²	-	16	136	-	11	99
Mining and Quarrying	553	1107	3874	416	832	2913
Total (I)	553	1122	4009	416	844	3013
Secondary Sector						
Metallic Mineral Based	26	79	26	22	65	22
Non Metallic Mineral Products	61	183	61	50	151	50
Textile and Garments	-	-	43	-	-	36
Chemical & Pharmaceuticals	-	13	-	-	11	-
Building and Construction	265	662	1720	208	519	1349
Food Processing/ Cold Chain/ Refrigeration	791	2374	12661	653	1959	10450
Wood / Wooden based furniture	-	-	52	-	-	43
Other Manufacturing	-	-	17	-	-	14
Total (II)	1163	3329	14590	949	2720	11971
Tertiary Sector						
Tourism Hospitality and Travel Trade	1735	1735	868	1313	1313	657
Transportation & Logistics/ warehousing/ packaging	74	147	515	59	117	410
Real Estate Services	313	313	626	289	289	578
Media & Entertainment	155	139	15	132	119	13
Healthcare Services	126	777	0	23	161	0
Banking Insurance & Finance	152	18	-	144	17	-
Education/ Skill Development Services	772	954	0	876	411	0
Total (III)	3327	4048	2033	2835	2428	1666
Grand Total (I+II+III)	5048	8535	20633	4204	5992	16649
Total Incremental Demand	61061					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.31 lakhs in the next 10 years.

Table 4.48– Incremental manpower demand in Pakur in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	13907	10170
Drivers	350	368
Domestic help	1468	1402
Security Guards	837	799
Others	303	1303
Total	16865	14042
Total Incremental Demand – Unorganized Sectors	30907	

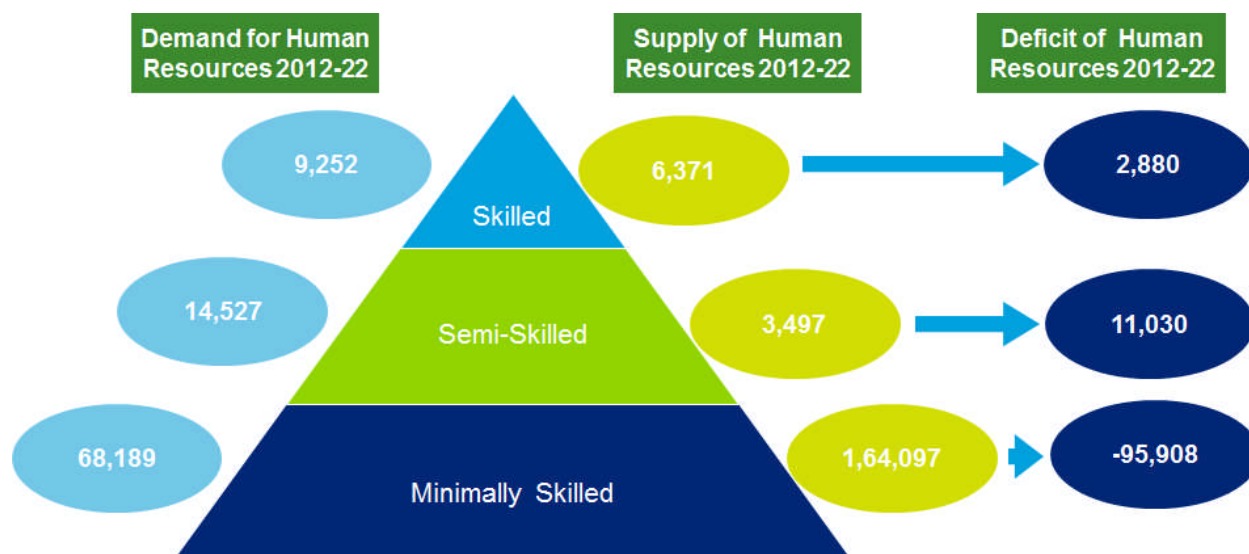
¹⁴² Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.82 lakhs¹⁴³, indicating excess of supply.

Figure 4.45– Incremental manpower gap in Pakur



Qualitative Skill Gaps

Table 4.49– Qualitative skill gaps in high demand sectors in Pakur

Sector	Level	Skill Gaps
Mining & Quarrying	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical mining machinery concepts - Inadequate communication skills - Poor man management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of electrical and mechanical maintenance concepts - Inadequate communication skills - Inadequate knowledge of quality aspects - Lack of man management skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of vernacular languages - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills

¹⁴³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
	Quality Controller	- Inadequate knowledge of sampling techniques

4.5.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students, with whom we interacted, aspire of getting government jobs especially in Indian railways or go for higher studies
- Most of the students were doing preparations for the focus group discussion
- Majority of the students were of the opinion that the institutes should provide coaching for competitive examinations along with technical courses
- Due to paucity of local industries, majority of vocationally trained students migrate to other districts/ states for getting a job
- Students highlighted that theoretical classes were conducted regularly, however practical classes were neglected due paucity of workshop equipment
- Some of the students underlined the importance of computer training for getting jobs

Students wanted to learn computers and soft skills along with their specific trade to have chance of getting employed

Source: Focus Group Discussion, Pakur

4.5.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in Primary & secondary sector are (i) Mining and Quarrying (ii) Food Processing (iii) Building and Construction
- Priority industries for skill development in tertiary sector are (i) Tourism, Hospitality & Travel Trade (ii) Education and Skill Development Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Pakur, the proposed action plan would consist of the following priority areas:

Table 4.50– Recommendations and action points for Godda

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Food processing - Education and Skill Development Services - Travel Trade
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Mining and Quarrying - Building & construction • Update machinery & provide manuals in workshops for practical classes • Update courses for emerging sectors like <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel • Focus on developing communication skills& basic IT skills of the students

	<ul style="list-style-type: none"> • Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> • Engage with industry players like Coal India & SAIL, DVC and industry associations like CII, and MSMEs to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> - Sericulture - Plantation and Horticulture - Forestry & Logging - Dairy/Poultry/Fisheries Development • Focus on supporting creation of micro-enterprises in food processing and services sector such as hotels & restaurants, travel trade, coaching institutes etc. in the district • Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Food processing - Travel Trade

4.6 Sahebganj

Sahebganj district is located in the north east of the state. It is bound by Bhagalpur and Godda district in the west, Maldah and Murshidabad district of West Bengal in the east, Ganga river and Katihar district in the north. The district is spread over 201.75 thousand hectares which constitutes about 3% of total geographical area of Jharkhand. The district comprises two subdivisions (Sahebganj and Rajmahal) and nine blocks i.e. Taljhari, Rajmahal, Barharwa, Pathna, Barhait, Mandro, Udhwa, Sahebganj and Borio.

4.6.1. Demography

Sahebganj has a population of 11.50 lakhs as of 2011 of which about 13.86% reside in urban areas¹⁴⁴. The urban population of Sahebganj is lower in comparison to the state average. The district is densely populated with 719 persons per sq. km. in comparison to the state average of 414¹⁴⁵. The district has a marginally higher sex ratio than the state.

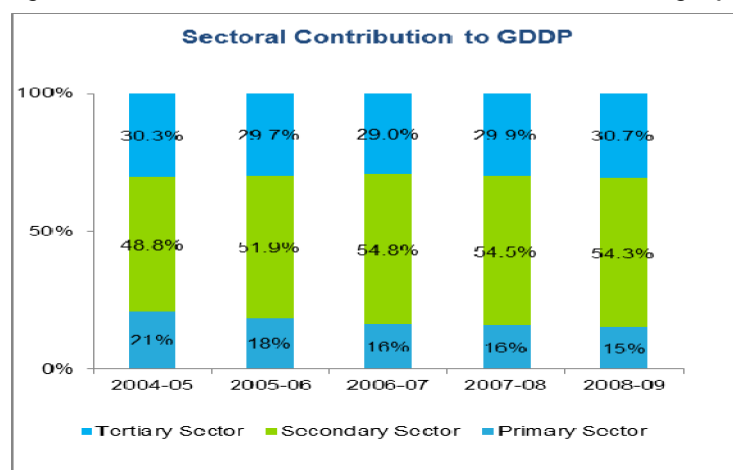
Table 4.51– Demography of Sahebganj

Demography	Sahebganj	Jharkhand
Population (2011)	11,50,038	3,29,66,238
Decadal Population Growth Rate (2001-11)	23.96%	22.34%
Population density per sq. km (2011)	719	414
Sex Ratio (2011)	948	947
Percentage of Urban Population (2011)	13.86%	24%
Percentage of SC Population (2001)	6.4%	11.8%
Percentage of ST Population (2001)	29.1%	26.3%

4.6.2. Economic Profile

Gross District Domestic Product (GDDP) of Sahebganj has grown at a higher growth rate (CAGR) of 7.98% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period¹⁴⁶. Secondary sector contributes about 54.3% of the GDDP primarily on account of contribution coming from manufacturing activities.

Figure 4.46– Sector level contribution to GDDP of Sahebganj



Source: Directorate of Economics & Statistics, Jharkhand

¹⁴⁴ Census of India, 2011

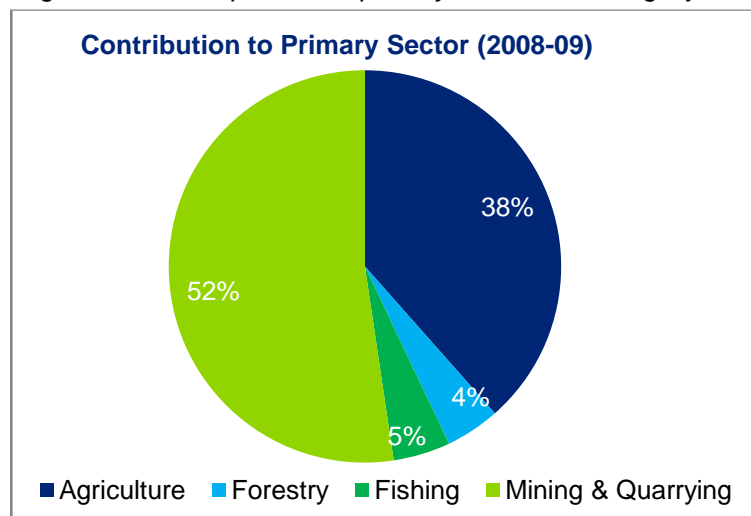
¹⁴⁵ Census of India, 2011

¹⁴⁶ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 15% to the GDDP in 2008-09¹⁴⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of decreasing contribution of agriculture and increasing contribution of secondary & tertiary sectors.

Figure 4.47– Composition of primary sector of Sahebganj



Primary Sector – Highlights

- Mining is the highest contributor to the primary sector
- Sahebganj has extensive deposits of Blackstone, Coal, Kaolin, China clay&Bentonite
- Cultivation of Horticultural crops such as Mango, Custard Apple, Citrus, Papaya and Jackfruit is prominent in the district
- The contribution of Fishing to Primary sector GDDP has steadily increased during the period 2004-05 to 2008-09

Source: District industrial Profile, MSME

Source: Directorate of Economics & Statistics, Jharkhand

Mining and Quarrying is the highest contributor to the primary sector of Sahebganj. Currently, most of the quarrying is being undertaken near the loop line of the Eastern Railway. The district is rich in Black stone & Kaolin deposits mostly located in the Rajmahal hills. The district contains approximately 80 mines and 150 crushers in operation which engages a huge labour force. The district is also rich in coal and a 1320 MW¹⁴⁸ coal-fired power plant is proposed to be built in Barharwa Block of the district by Madhucon Projects.

The net sown area is about 22.85% of the total land with assured irrigation facility provided to about 8%¹⁴⁹ of the net sown area only. Important crops grown in plain are rice, wheat, maize and jute. However, there has been a shift in cropping pattern, from cereal to horticultural crops benefitting the farmers.

Agriculture is mostly practiced at a subsistence level with other allied activities such as dairy farming, poultry farming and rearing of sheep/goat and pigs providing additional source of income for the farmers. The bed of the Ganges at Sahebganj and Rajmahal provides a conducive field in the district for fishing & breeding of fish spawns.

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 54.3%¹⁵⁰. The sector has registered a CAGR of 10.89% between 2004-05 and 2008-09 primarily on account of growth in manufacturing activities. Manufacturing activities contributed about 90% of the contribution of the secondary sector to the GDDP.¹⁵¹

¹⁴⁷ Directorate of Economics and Statistics, Jharkhand

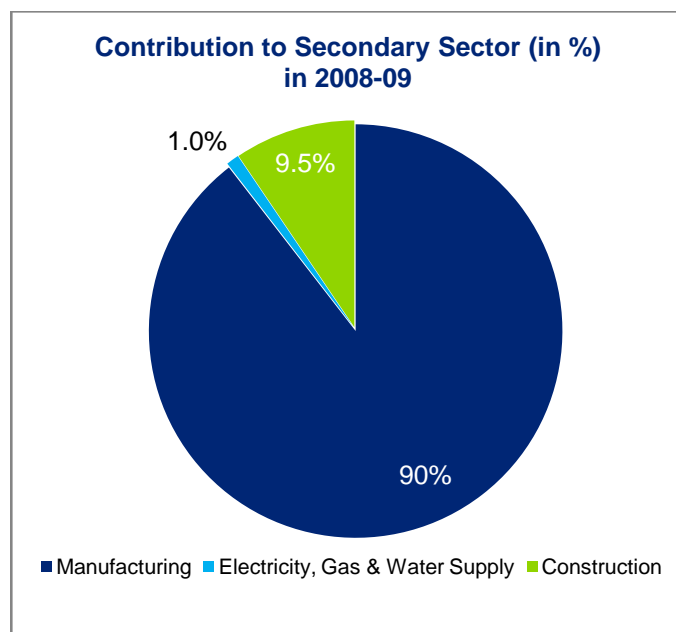
¹⁴⁸ Sourcewatch

¹⁴⁹ ATMA Sahebganj

¹⁵⁰ Directorate of Economics and Statistics, Jharkhand

¹⁵¹ Directorate of Economics and Statistics, Jharkhand

Figure 4.48– Composition of secondary sector of Sahebganj



Source: Directorate of Economics & Statistics, Jharkhand

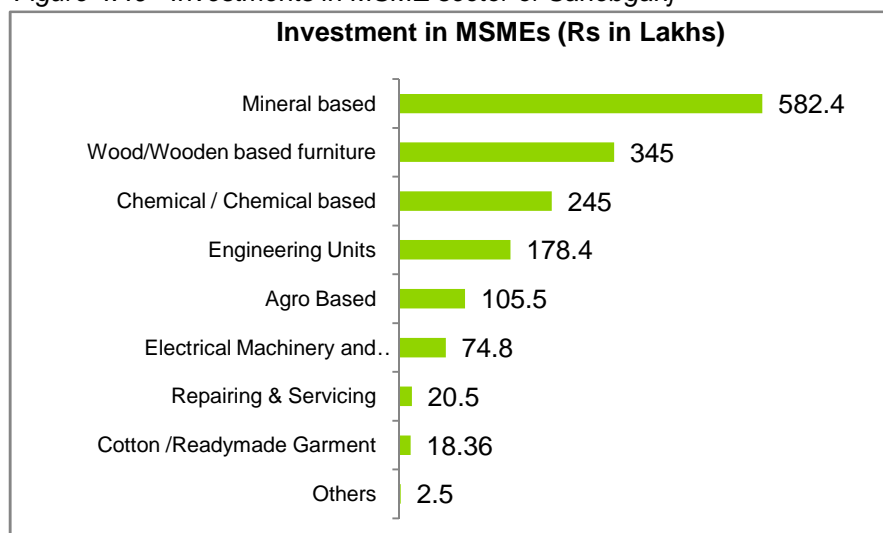
- Tobacco products have the maximum share in the industrial production of Sahebganj at 55.12% contribution. It is followed by manufacturing and food processing industry contributing 13.85% and 7.55%, respectively
- Maximum employment is generated by Tobacco products accounting for 49.06% of industrial workers. It is followed by Beverages and Food processing accounting for 18.52% and 11.86%, respectively

Source: Jharkhand Development Report 2012

The secondary sector in Sahebganj constitutes of mostly small scale and cottage industries, primarily engaged in manufacturing of tobacco products, beverage and food processing. The traditional cottage and village industries include tasar rearing, village black-smithy, carpentry, handloom weaving, rope making, bidi making, earthen ware making, stone ware making, etc.¹⁵². The main exports of the district are paddy, jawar, sabai, grass, stone chips, hides, fibers, kaolin and bentonite.

Sahebganj is famous for its stone, pottery and clay-washing industry with approximately 250 pottery & clay washing industries operation in the district.¹⁵³

Figure 4.49– Investments in MSME sector of Sahebganj



Source: District Industrial Profile, DC-MSME

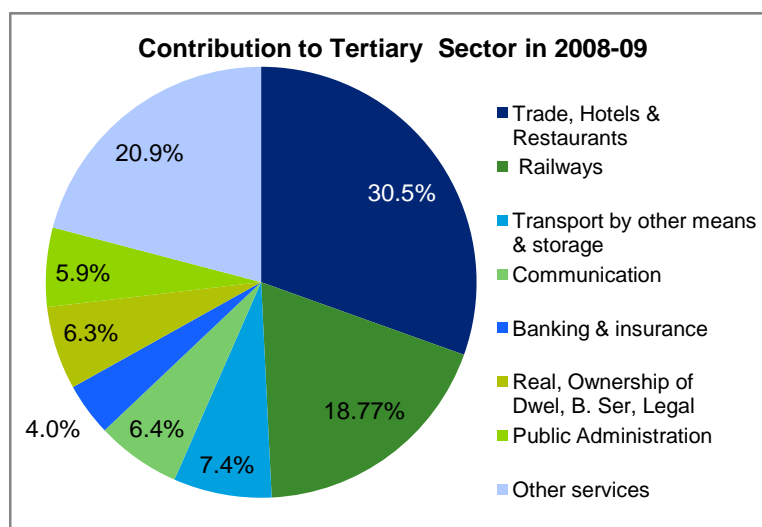
¹⁵² Institute for Human Development, Indian Council for Social Science Research

¹⁵³ District Industrial Profile, Sahebganj

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 30.7 % in 2008-09¹⁵⁴. The sector has registered a CAGR of 8.37% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; Railways and Transport by other means & storage.

Figure 4.50– Composition of tertiary sector of Sahebganj



Source: Directorate of Economics & Statistics, Jharkhand

The highest contributor to the sector is trade, hotel and restaurants. Railways and transport & storage have grown by CAGR 10.35% in the period between 2004-05 and 2008-09 respectively.

Sahebganj is a tribal district endowed with immense natural beauty. The district offers excellent tourism options to tourists. The prominent tourist places in the district are Rajmahal hills, Mangalghat, Kanhaiyasthan, Teliagarhi, Udhwa Bird Sanctuary, Motijharna, Shivgadi and Binduvasini Temple.

Future Growth Opportunities in Sahebganj

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.52– Focus sectors and growth opportunities in Sahebganj

Sector/ Industry	Growth Opportunities
Chemical/chemical based	China clay is found in abundance in Sahebganj. There is a good potential for setting up ceramic based industries such as terracotta, pottery etc.
Mineral Products	Mining and Quarrying is the highest contributor to the primary sector of Sahebganj. The availability of mineral resources can drive further growth mineral based industries
Food Processing	Food Processing industry is a major contributor to the secondary sector and can grow at a similar rate in future

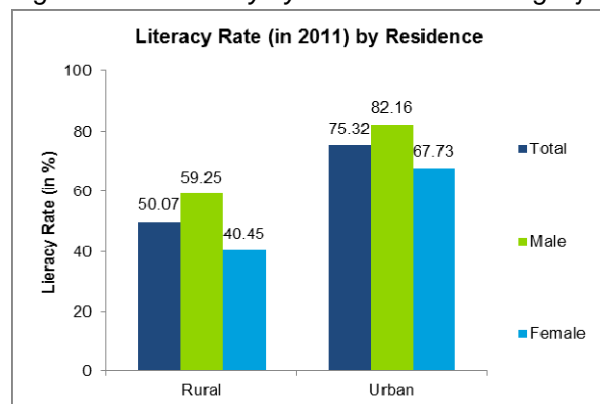
¹⁵⁴ Directorate of Economics and Statistics, Jharkhand

Sector/ Industry	Growth Opportunities
Tourism hospitality and travel trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

4.6.3. Education

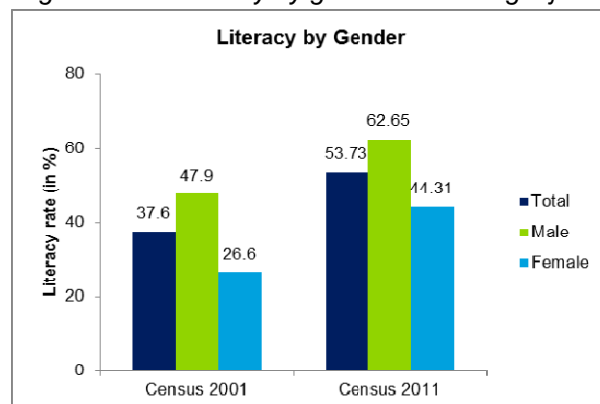
Sahebganj has a much lower literacy rate of 53.73% in comparison to state average of 67.63%¹⁵⁵. It marks significant improvement over literacy rate of 37.6% 2001¹⁵⁶. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.51– Literacy by residence in Sahebganj



Source: Census 2011

Figure 4.52– Literacy by gender in Sahebganj



Source: Census 2001, Census 2011

Sahebganj has 1481 schools with enrolment of about 2.43 lakhs¹⁵⁷ in primary and upper primary. Enrolment in Government schools account for 94.76% of total enrolment. 71.4% of the students attend upper primary schools after primary education. On the other hand Sahebganj has 92 secondary and higher secondary schools with enrolment of about 0.38 lakhs only.

Sahebganj has no AICTE accredited institute offering professional courses in the district. In terms of vocational training infrastructure, Sahebganj has one Government Industrial Training Institute but no private Industrial Training Centre. The courses run at the ITI are fitter, turner, machinist, electrician, plumber, welder, wireman and sheet metal worker. The district has very limited presence of private vocational training providers.

Table 4.53– Educational infrastructure in Sahebganj

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	1	100	National Council for Teacher Education
ITIs – Government	1	312	Ministry of Labour, Jharkhand

¹⁵⁵ Census of India, 2011

¹⁵⁶ Census of India, 2001

¹⁵⁷ DISE, 2010-11

4.6.4. Employment Profile

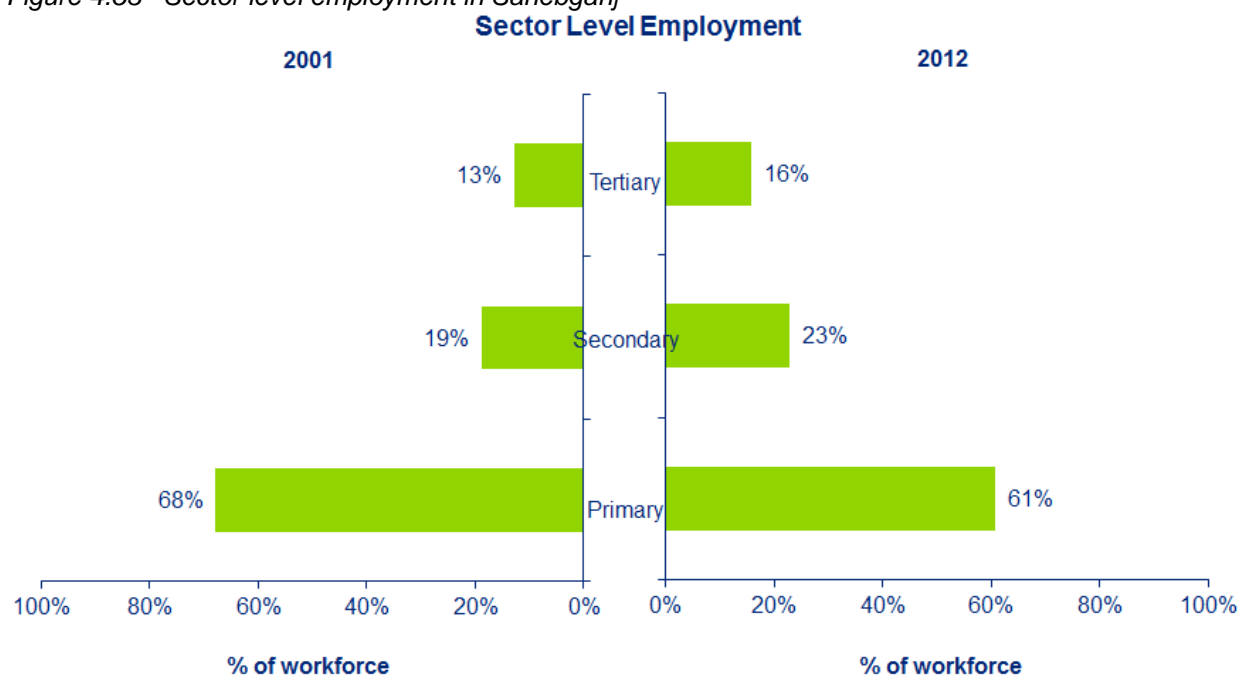
The work participation rate of Sahebganj was 41.8% which is higher than the state average of 37.5%¹⁵⁸. Total workforce is expected to increase to 5.02 lakhs in 2012.

Table 4.54– Employment profile in Sahebganj

Employment Profile (In Lakhs)	2001 ¹⁵⁹	2012 ¹⁶⁰
Total Population	9.28	11.75
Working Age Population	4.85	7.04
Labour Force	4.06	5.20
Workforce	3.80	5.02

About 68% of the workers in Sahebganj district were engaged in primary sector in 2001, which is estimated to decrease to about 61% in 2012 on account of increase in opportunities in secondary and tertiary sectors¹⁶¹

Figure 4.53– Sector level employment in Sahebganj



¹⁵⁸ Census of India, 2001

¹⁵⁹ Census of 2001

¹⁶⁰ Deloitte Analysis

¹⁶¹ Deloitte Analysis

4.6.5. Skill Gap Assessment

Manpower Supply

The population of Sahebganj in 2011 was about 11.50 lakhs which is expected to increase to about 13.08 lakhs in 2017 and about 14.57 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.86 lakhs.

Table 4.55– Estimated workforce of Sahebganj

Estimated Work Force			
	2011	2017	2022
Population	11,50,038	13,08,223	14,56,541
Working age population	6,89,671	8,15,118	9,41,582
Available Labour Force	5,09,410	6,02,069	6,95,479
Projected Work Force	4,92,715	5,51,729	5,98,925
Incremental manpower supply (2012-22)	1,86,069		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.56– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	2835	3333	6168
Semi-Skilled	1220	624	1844
Minimally skilled	88603	89453	178056

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 1.06 lakhs including 0.68 lakhs in organized sectors and 0.38 lakhs in unorganized sectors.

Table 4.57– Incremental manpower demand in Sahebganj in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ¹⁶²	-	19	162	-	14	119
Mining and Quarrying	236	473	1654	178	355	1244
Total (I)	236	491	1816	178	369	1363
Secondary Sector						
Metallic Mineral Based	375	1125	375	299	897	299
Electricity, Gas & Water Supply	-	13	15	-	10	11
Textile and Garments	-	16	139	-	13	111
Chemical & Pharmaceuticals	25	42	17	20	34	14
Building and Construction	398	996	2590	300	751	1953
Food Processing/ Cold Chain/ Refrigeration	647	1941	10354	516	1549	8262
Wood / Wooden based furniture	28	28	509	23	23	406
Other Manufacturing	99	165	397	79	132	317
Total (II)	1591	4327	14395	1251	3409	11372
Tertiary Sector						
IT/ ITES-BPO services	10	-	-	21	-	-
Tourism Hospitality and Travel Trade	2411	2411	1206	1767	1767	883
Transportation & Logistics/ warehousing/ packaging	272	545	1907	222	445	1557
Real Estate Services	370	370	739	387	387	773
Media & Entertainment	314	283	31	269	242	27
Healthcare Services	151	1056	0	24	174	0
Banking Insurance & Finance	577	68	34	600	71	35
Education/ Skill Development Services	1368	1211	0	1582	569	0
Total (III)	5475	5948	3918	4872	3664	3278
Grand Total (I+II+III)	7307	10767	20130	6305	7442	16013
Total Incremental Demand	67,964					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.38 lakhs in the next 10 years.

Table 4.58– Incremental manpower demand in Sahebganj in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	16609	12145
Drivers	222	226
Domestic help	1565	1467
Security Guards	892	837
Others	1603	2770
Total	20891	17485
Total Incremental Demand – Unorganized Sectors	38,376	

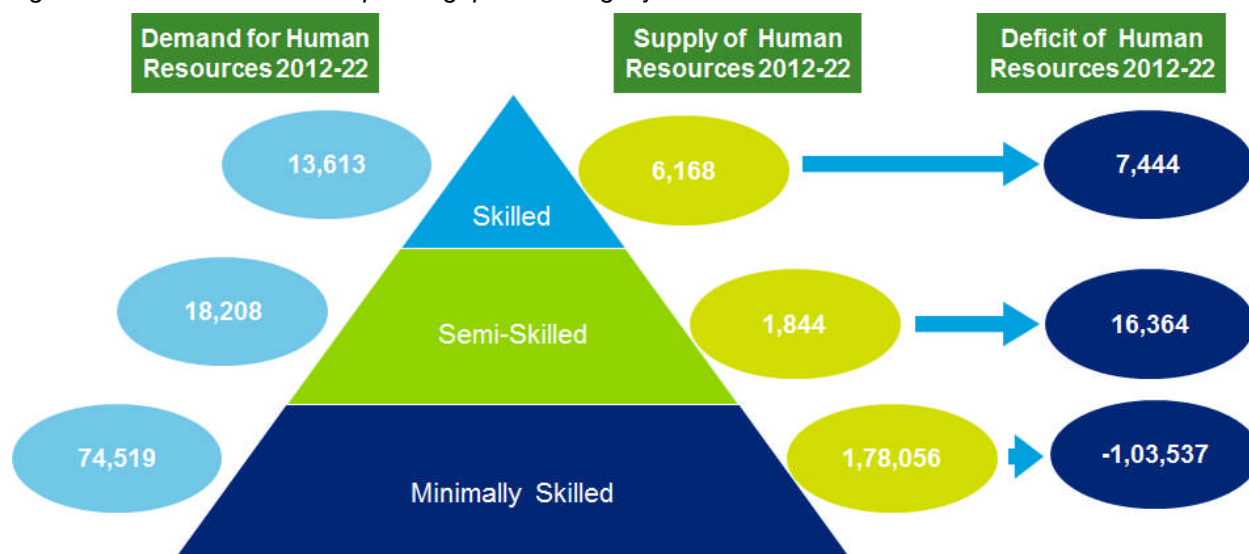
¹⁶² Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be about minus (–) 0.80 lakhs¹⁶³, indicating an excess of supply.

Figure 4.54– Incremental manpower gap in Sahebganj



Qualitative Skill Gaps

Table 4.59– Qualitative skill gaps in high demand sectors in Sahebganj

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques
Travel Trade	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints

¹⁶³ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
		- Inadequate personal presentation skills
	Guide	- Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	- Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	- Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Education & Skill Development	Teachers/Instructors	- Inability to deliver content in a simple way to facilitate better comprehension by students - Lack of empathy for students - Lack of knowledge of ICT usage in teaching
Textile & garments	Operator	- Skill confined to single or few machines - Lack of knowledge of quality compliance - Lack of ability to plan and multitask
	Sales executive	- Lack of negotiation skills - Inadequate communication and networking skills

4.6.6. Youth Aspirations

- As jobs opportunities are limited in the district, most of the students we interacted with are either preparing for competitive examinations especially to get government jobs like the railways or planning to go to other districts of the state to find suitable employment.
- Many students aspire to go for higher degrees and not sufficient job opportunities are available after completion of vocation courses.
- Some of the students would like to become trade instructors after completing their courses
- Many of the students feel that basic functional knowledge of computers is mandatory in addition of being technically strong for getting a good job and being successful in their career.
- Most of the students feel that the courses are not modelled based on the local industry requirements.

Students of ITI, feel that just completing the vocational courses is not enough to get a job and aspire to go for higher studies

Source: Focus Group Discussion, Sahebganj

4.6.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Food Processing (ii) Building and Construction
- Priority industries for skill development in tertiary sector are (i) Travel Trade (ii) Education & Skill Development Services (iii) Real Estate Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Sahebganj, the proposed action plan would consist of the following priority areas:

Table 4.60– Recommendations and action points for Sahebganj

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> Food processing Education & skill development Real Estate Services Travel & Trade Building & construction
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> Building & construction Real estate Services Education & skill development Mining and Quarrying Metallic Mineral Products Update machinery & provide manuals in workshops for practical classes Develop courses for emerging sectors like <ul style="list-style-type: none"> Food processing Travel & Trade Focus on developing communication skills & basic IT skills of the students Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> Establish training initiatives in PPP mode for sourcing workers for industries in industrial belt of Ranchi, Jamshedpur, Dhanbad and Bokaro; ensuring proximity of trained labour to industrial centres Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes in the district Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income) Focus on supporting creation of micro-enterprises/ ancillaries for food processing and metallic mineral based products industries in the district Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA Engage with industry players like DVC and industry associations like CII & Sahebganj Chamber of Commerce to develop vocational training curriculum with focus on increasing employability of passing out students
Industry	<ul style="list-style-type: none"> Collaborate with skill development institutes for updating course content & creating linkages for placement Support the skill development/ educational institutes in capacity building of instructors/ teachers Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> Metallic mineral products industry Food processing

4.7 Garhwa

Garhwa district of Jharkhand is bordered by river Sone on the north, Palamu district of Jharkhand state on the east, Surguji district of Chhatisgarh state on the south, Sonebhadra district of Uttar Pradesh on the west. The district is spread over 428.82 thousand hectares which constitutes about 5% of total geographical area of Jharkhand. The district consist of three sub divisions namely Garhwa, NagarUntari and Ranka.

4.7.1. Demography

Garhwa has a population of 13.22 lakhs as of 2011 of which about 5.27% reside in urban areas¹⁶⁴. The urban population of Garhwa is much lower in comparison to the state average. The district is sparsely populated with 327 persons per sq. km. in comparison to the state average of 414¹⁶⁵. The district has a lower sex ratio than the state.

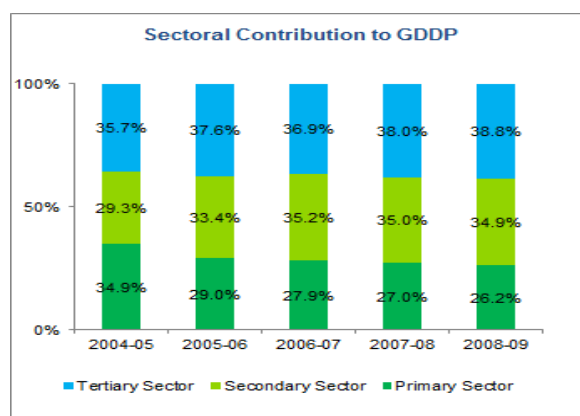
Table 4.61– Demography of Garhwa

Demography	Garhwa	Jharkhand
Population (2011)	13,22,387	3,29,66,238
Decadal Population Growth Rate (2001-11)	27.71%	22.34%
Population density per sq. km (2011)	327	414
Sex Ratio (2011)	933	947
Percentage of Urban Population (2011)	5.27%	24%
Percentage of SC Population (2001)	23.9%	11.8%
Percentage of ST Population (2001)	15.6%	26.3%

4.7.2. Economic Profile

Gross District Domestic Product (GDDP) of Garhwa has grown at a lower growth rate (CAGR) of 5.98% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period¹⁶⁶. Tertiary sector contributes about 38.8% of the GDDP primarily on account of contribution coming from Trade, hotels and restaurants sector.

Figure 4.55– Sector level contribution to GDDP of Garhwa



Source: Directorate of Economics & Statistics, Jharkhand

¹⁶⁴ Census of India, 2011

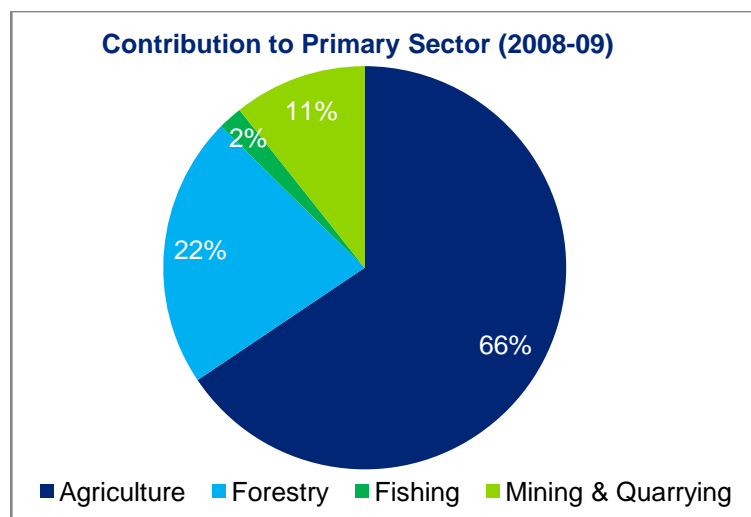
¹⁶⁵ Census of India, 2011

¹⁶⁶ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 26% to the GDDP in 2008-09¹⁶⁷. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account increasing contribution of secondary & tertiary sectors.

Figure 4.56– Composition of primary sector of Garhwa



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- The district has a high forest cover of about 40% of total geographical area which is higher than state average of 29%.
- The district has substantial mineral reserves of Iron, Bauxite and Limestone
- Poultry, Dairy development, rearing of Sheep, goat and pigs widely practiced in the district

*Source: District Industrial Profile- Garhwa MSME

Agriculture is a means of livelihood for majority of the population in the district with net sown area being 23.5% of the total geographical area. Major crops grown in the district are paddy, wheat, maize, pulses like arhar, moong and oil seeds like mustard and Ground nut. Apart from agriculture, allied activities like poultry & piggery also play a very vital role in the economics of the district. Seed collection of sal, mahua, semal and other forest produce like lac, kendu leaves, etc. also contribute to the economy.

Mining and quarrying activities contribute around 11% to the GDDP of the primary sector. The district is rich in natural and mineral resources deposits of Iron, Bauxite, Limestone, Graphite, China Clay, & granite.

Secondary sector

The contribution of the secondary sector to district GDP in 2008-09 was about 34.9%¹⁶⁸. The sector has registered a CAGR of 10.7% between 2004-05 and 2008-09 primarily on account of growth in manufacturing activities. Manufacturing activities contributed about 84% of the contribution of the secondary sector to the GDDP.¹⁶⁹

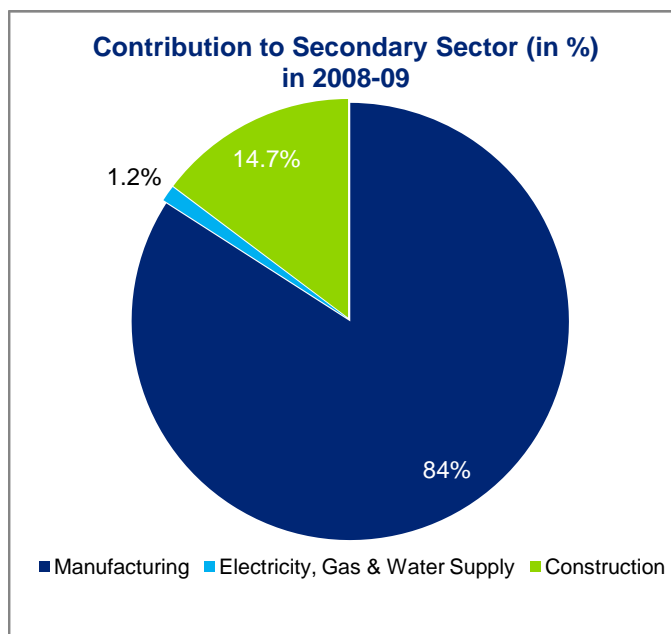
The district secondary economy, presence of industries and employment primarily depend on the development and utilization of available mineral resources. Limestone produced in the district is being utilized in the cement plants located within and outside the district.

¹⁶⁷ Directorate of Economics and Statistics, Jharkhand

¹⁶⁸ Directorate of Economics and Statistics, Jharkhand

¹⁶⁹ Directorate of Economics and Statistics, Jharkhand

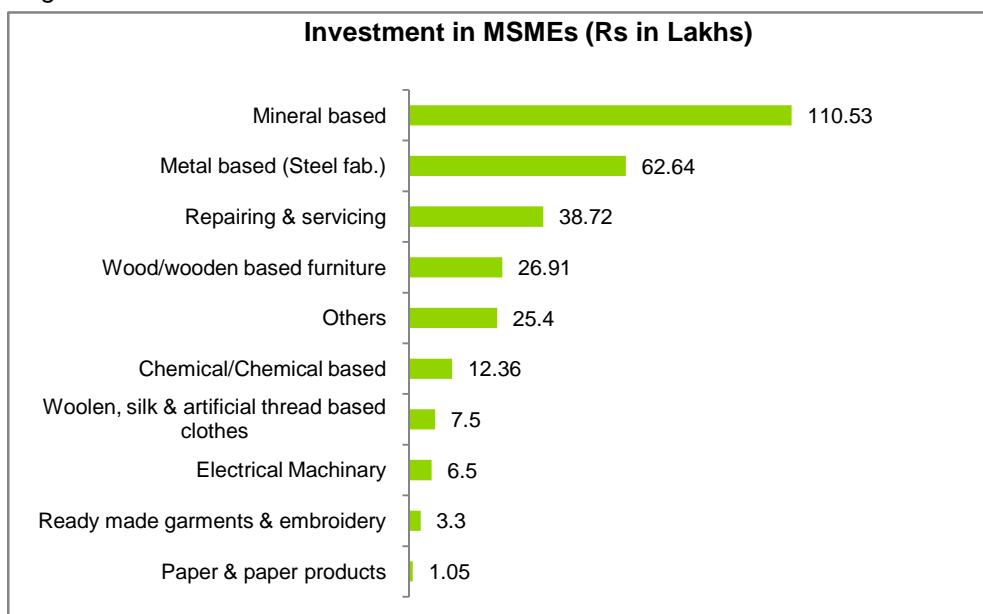
Figure 4.57– Composition of secondary sector of Garhwa



Source: Directorate of Economics & Statistics, Jharkhand

The secondary economy of Garhwa is marked by the presence of small cottage type industries that utilize the naturally available resources. There has been investment in sectors such as wood/wooden based furniture and woolen and silk clothing owing vast forest resources.

Figure 4.58– Investments in MSME sector of Garhwa

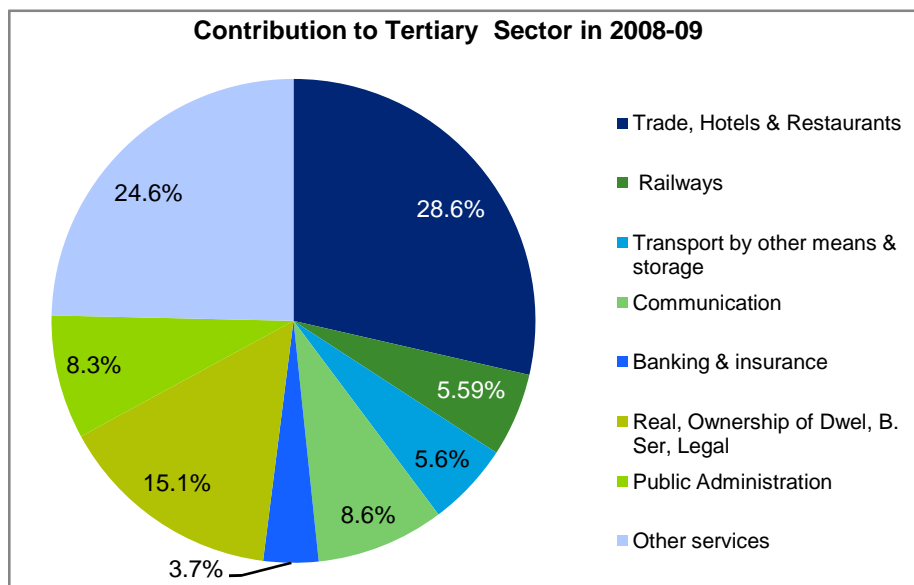


Source: District Industrial Profile, DC-MSME

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 38.8% in 2008-09¹⁷⁰. The sector has registered a CAGR of 8.21 % between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; and real estate.

Figure 4.59– Composition of tertiary sector of Garhwa



Source: Directorate of Economics & Statistics, Jharkhand

The major contributors to the sector Trade, hotel and restaurants; and Real Estate have grown by CAGR 5.48% and 9.73% in the period between 2004-05 and 2008-09 respectively. Tourism is one of the main stays of Garhwa's economy. It is a beautiful hill town with places such as Sukhadari River, Radha Krishna Mandir, SaruatPahar, Raja pahari which attract tourists.

Future Growth Opportunities in Garhwa

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential.

Table 4.62– Focus sectors and growth opportunities in Garhwa

Sector/ Industry	Growth Opportunities
Agriculture and Allied Activities	<p>The following areas present good growth opportunities in the district:</p> <ul style="list-style-type: none"> • Horticulture & Plantation • Jatropha Plantation • Sericulture • Medicinal and aromatic plants • Agroforestry
Food Processing	<p>The district has potential for the growth of the following:</p> <ul style="list-style-type: none"> • Dairy farming • Poultry farming • Agro processing

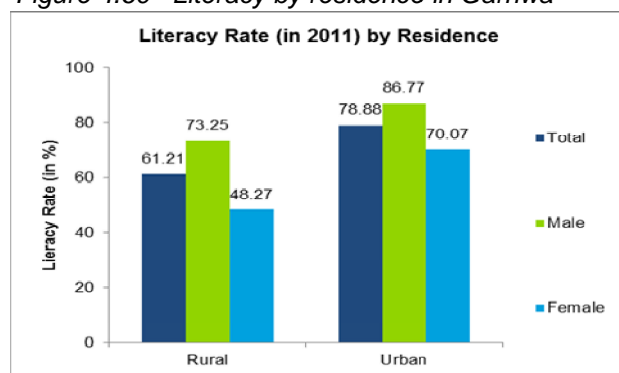
¹⁷⁰ Directorate of Economics and Statistics, Jharkhand

Sector/ Industry	Growth Opportunities
Wood/wooden based furniture	With about 40% of the geographical area being covered with forest and easy availability of wood, Garhwa has huge opportunities for wood/ wooden based furniture. This industry has also attracted considerable investment in the past and is likely to grow further.
Mineral Products	Mineral based industries has seen the highest investment in the MSME sector in the district during 2007-11 and is expected to maintain its growth in future
Tourism hospitality and travel trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

4.7.3. Education

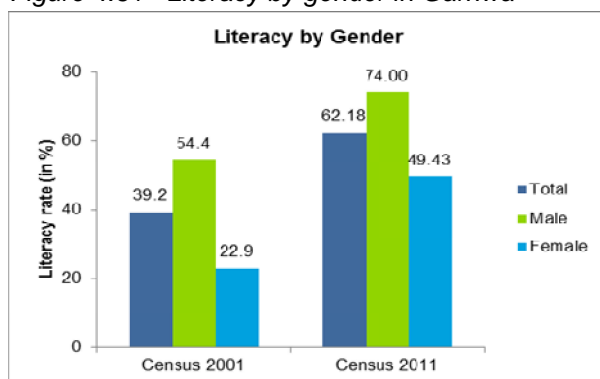
Garhwa has a lower literacy rate of 62.18% in comparison to state average of 67.63%¹⁷¹. It marks significant improvement over literacy rate of 39.2% 2001¹⁷². However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.60– Literacy by residence in Garhwa



Source: Census 2011

Figure 4.61– Literacy by gender in Garhwa



Source: Census 2001, Census 2011

Garhwa has 1481 schools with enrolment of about 3.24 lakhs¹⁷³ in primary and upper primary. Enrolment in Government schools account for 95% of total enrolment. Only 78.5% of the students attend upper primary schools after primary education. On the other hand, Garhwa has 114 secondary and higher secondary schools with enrolment of about 0.48 lakhs only.

Garhwa has no institutes offering AICTE accredited programs in the field of engineering/ technology, management and computer application as highlighted in the table below. In terms of vocational training infrastructure, Garhwa has one Government Industrial Training Institute and no private Industrial Training Centre. Major trades offered in the Government ITI are Mechanic General Electronics, fitter, electrician, wiremen, Mechanic Motor vehicle, Draftsman mechanic and welder. There is a B.Ed. college with capacity of 100 in the district. Garhwa has no Government polytechnic or similar private institutions. The district has very limited presence of private vocational training providers.

Table 4.63– Educational infrastructure in Garhwa

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	1	100	National Council for Teacher Education
ITIs – Government	1	180	Ministry of Labour, Jharkhand

¹⁷¹ Census of India, 2011

¹⁷² Census of India, 2001

¹⁷³ DISE, 2010-11

4.7.4. Employment Profile

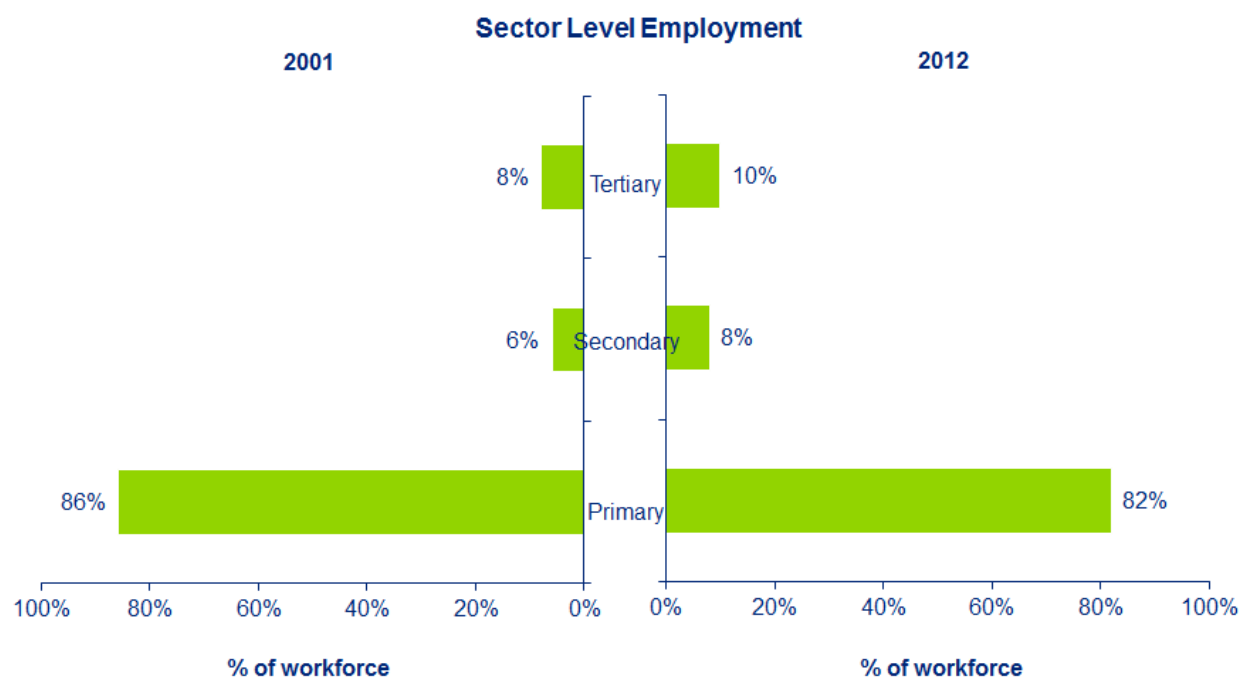
The work participation rate of Garhwa was 38.9% which is higher than the state average of 37.5%¹⁷⁴. As per Deloitte analysis, total workforce of Garhwa is expected increase to be 5.35 lakhs in 2012.

Table 4.64– Employment profile in Garhwa

Employment Profile (In Lakhs)	2001 ¹⁷⁵	2012 ¹⁷⁶
Total Population	10.35	13.55
Working Age Population	5.06	7.62
Labour Force	4.20	5.54
Workforce	4.01	5.35

The primary sector will continue to employ majority of the workforce but the contribution of primary sector to total employment is expected to slightly decrease on account of increasing opportunities in secondary and tertiary sector in the district.

Figure 4.62– Sector level employment in Garhwa



¹⁷⁴ Census of India, 2001

¹⁷⁵ Census of 2001

¹⁷⁶ Deloitte Analysis

4.7.5. Skill Gap Assessment

Manpower Supply

The population of Garhwa was about 13.22 lakhs in 2011 which is expected to increase to about 15.31 lakh in 2017 and about 17.31 lakh in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 2.23 lakhs during 2012-22.

Table 4.65– Estimated workforce of Garhwa

Estimated Work Force			
	2011	2017	2022
Population	13,22,387	15,31,417	17,30,636
Working age population	7,44,029	8,95,709	10,50,732
Available Labour Force	5,40,951	6,51,230	7,63,941
Projected Work Force	5,22,224	5,97,320	6,56,441
Incremental manpower supply (2012-22)	2,22,990		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled categories based on education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.66– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2018-22	Total
Skilled	4763	5511	10274
Semi-Skilled	1015	575	1590
Minimally skilled	104500	106625	211125

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand is about 1.34 lakh including 0.38 lakh in organized sectors and 0.96 lakhs in unorganized sector.

Table 4.67– Incremental manpower demand in Garhwa in organized sectors

Incremental Demand – Organized sectors						
Sectors	2012-17			2018-2022		
	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ¹⁷⁷	18	59	515	14	46	396
Mining and Quarrying	17	33	117	12	25	86
Total (I)	34	93	632	26	70	482
Secondary Sector						
Textiles & garments	141	281	2391	115	230	1957
Chemicals & pharmaceuticals	47	78	31	38	64	26
Wood & wood based furniture	12	12	212	10	10	173
Metallic Mineral based Products	244	733	244	200	600	200
Non Metallic Mineral Products	183	549	183	150	449	150
Building & construction	267	667	1734	209	523	1360
Other Manufacturing	130	217	522	107	178	427
Total (II)	1027	2542	5322	831	2058	4296
Tertiary Sector						
IT/ ITES-BPO services	11	-	-	25	11	-
Tourism Hospitality and Travel Trade	1907	1907	954	1443	1443	722
Transportation & Logistics/ warehousing/ packaging	77	154	539	63	125	438
Real Estate Services	366	366	732	333	333	665
Media & Entertainment	281	253	28	240	216	24
Healthcare Services	177	1355	0	33	233	0
Banking Insurance & Finance	205	24	12	184	22	11
Education/ Skill Development Services	1047	1757	0	1247	954	0
Total (III)	4072	5825	2268	3572	3348	1865
Grand Total (I+II+III)	5134	8460	8222	4429	5475	6644
Total Incremental Demand	38364					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.96 lakh in the next 10 years.

Table 4.68– Incremental manpower demand in Garhwa in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2018-22
Agriculture & allied activities	52757	40558
Others	603	2061
Total	53360	42619
Total Incremental Demand – Unorganized Sectors	95979	

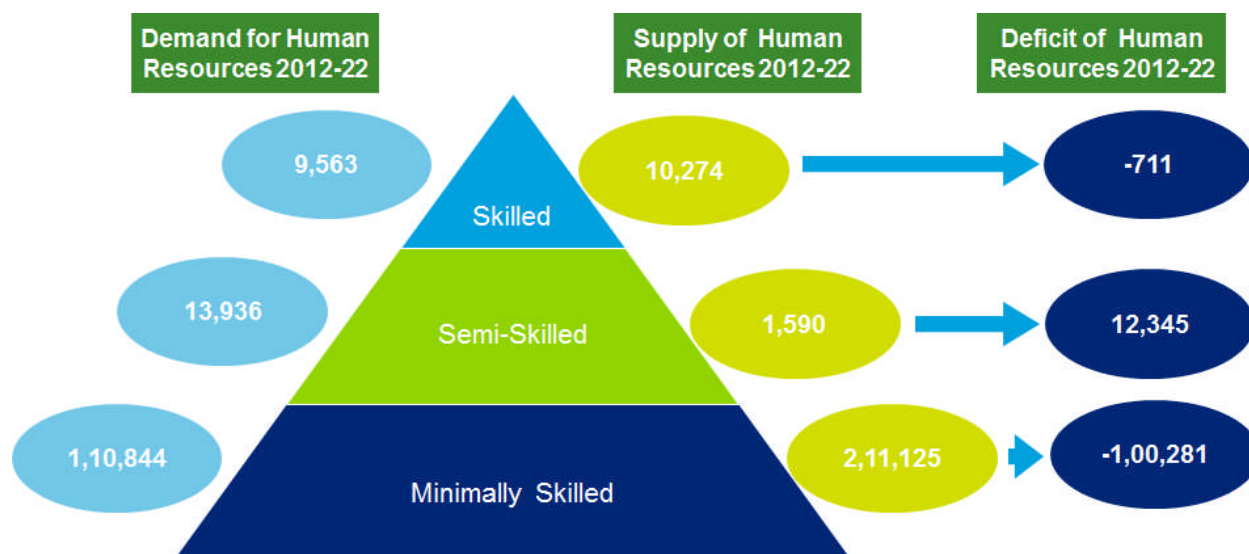
¹⁷⁷ Employment in organized agriculture activities

“ – “ Negligible Demand – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be about minus (–) 0.89 lakhs¹⁷⁸, indicating an excess of supply.

Figure 4.63– Incremental manpower gap in Garhwa



Qualitative Skill Gaps

Table 4.69– Qualitative skill gaps in high demand sectors in Garhwa

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Engineering Units/ Non-metallic mineral products	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown

¹⁷⁸The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Textile & garments	Operator	<ul style="list-style-type: none"> - Skill confined to single or few machines - Lack of knowledge of quality compliance - Lack of ability to plan and multitask
	Sales executive	<ul style="list-style-type: none"> - Lack of negotiation skills - Inadequate communication and networking skills
Education & Skill Development Services	Principal	<ul style="list-style-type: none"> - Inadequate hiring skills - Inadequate legal knowledge - Inadequate branding and marketing skills - Lack of knowledge of modern ICT tools
	Teachers/ Instructors	<ul style="list-style-type: none"> - Lack of good communication skills - Lack of knowledge of modern ICT tools - Lack of industry exposure - Lack of knowledge of modern pedagogy tools

4.7.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Majority of the participants of the FGD conducted in the district aspire to get admission in ITIs/ ITCs. However, lack of institutes in the district along with high fees and lack of transport facility are key constraints in access to vocational training.
- Due to lack of employment opportunities in the districts, some of the youth want to be self-employed.
- Most of the students want to work in the district. However, as the district has very limited employment opportunities, they migrate to other states/ districts in Jharkhand.
- The students wanted the government to take adequate steps to for employment generation in the district.

Most of the Youth in the district want to work in their own districts but migrate to other districts/ states due to lack of training institutes and employment opportunities.

Source: Focus Group Discussion, Garhwa

4.7.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Textile & garments (ii) Building & construction (iii) Mineral and Metal products
- Priority industries for skill development in tertiary sector are (i) Travel Trade(ii)Education and Skill Development Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Garhwa, the proposed action plan would consist of the following priority areas:

Table 4.70– Recommendations and action points for Garhwa

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Textile & garments - Travel Trade - Building & construction - Education and Skill Development Services - Mineral and Metal Products
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building and Constructions - Textile & garments - Mineral and Metal Products Update machinery & provide manuals in workshops for practical classes Develop courses for emerging sectors like <ul style="list-style-type: none"> - Education and Skill Development Services - Travel Trade Focus on developing communication skills& basic IT skills of the students Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> Establish cluster based training initiatives in PPP mode for sourcing workers for handloom cluster and other small scale industries in the district Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> - Horticulture & Plantation - Sericulture - Medicinal and Aromatic Plants - Agroforestry Focus on supporting creation of micro-enterprises in textiles sector in the district Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA Engage with local industry players and industry associations like CII to develop vocational training curriculum with focus on increasing employability of students
Industry	<ul style="list-style-type: none"> Collaborate with skill development institutes for updating course content & creating linkages for placement Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Textile & Garments - Mineral and Metal Products

4.8 Koderma

Koderma district is located in the North Chotta nagpur division. It is bordered by Nawada district of Bihar on the north, Gaya district of Bihar on the west, Giridih on the east, and the Hazaribag on the south. The district is spread over 130.20 thousand hectares which constitutes about 2% of total geographical area of Jharkhand. The district is divided into 6 developmental blocks namely: Koderma, Jainagar, Chandwara, Markachho, Domchanch and Satgawan.

4.8.1. Demography

Koderma has a population of 7.17 lakhs as of 2011 of which about 19.71% reside in urban areas¹⁷⁹. The urban population of Koderma is lower in comparison to the state average. The district is more densely populated with 427 persons per sq. km. in comparison to the state average of 414¹⁸⁰. The district has a marginally higher sex ratio than the state.

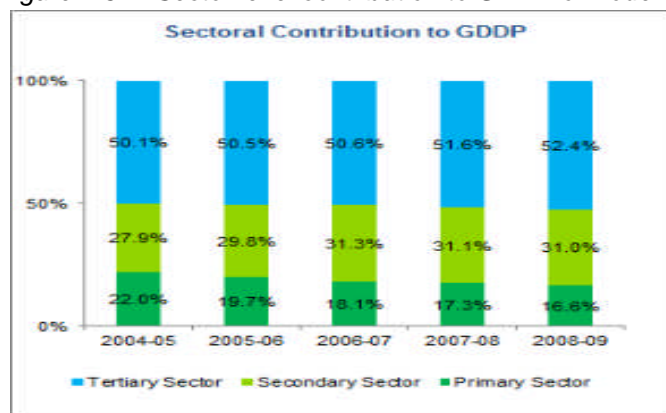
Table 4.71– Demography of Koderma

Demography	Koderma	Jharkhand
Population (2011)	7,17,169	3,29,66,238
Decadal Population Growth Rate (2001-11)	32.59%	22.34%
Population density per sq. km (2011)	427	414
Sex Ratio (2011)	949	947
Percentage of Urban Population (2011)	19.71%	24%
Percentage of SC Population (2001)	14.3%	11.8%
Percentage of ST Population (2001)	0.8%	26.3%

4.8.2. Economic Profile

Gross District Domestic Product (GDDP) of Koderma has grown at a higher growth rate (CAGR) of 6.80% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period¹⁸¹. Tertiary sector contributes about 52.4% of the GDDP primarily on account of contribution coming from Trade, hotels & restaurants.

Figure 4.64– Sector level contribution to GDDP of Koderma



Source: Directorate of Economics & Statistics, Jharkhand

¹⁷⁹ Census of India, 2011

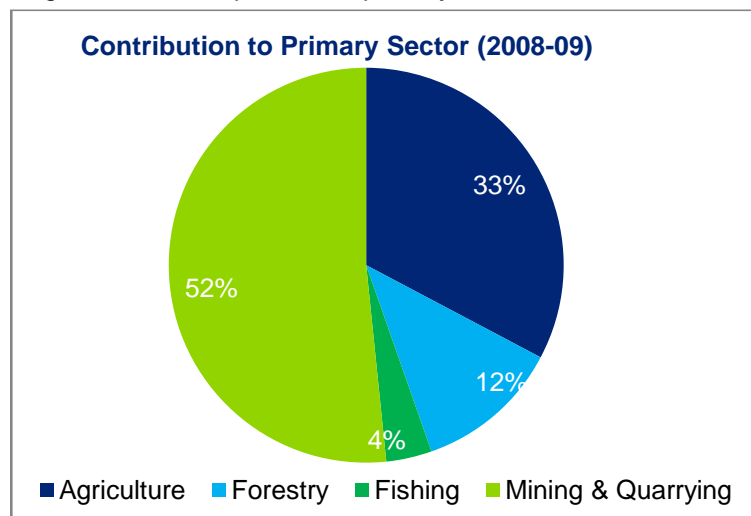
¹⁸⁰ Census of India, 2011

¹⁸¹ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 17% to the GDDP in 2008-09¹⁸². The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of increasing contribution of secondary & tertiary sectors.

Figure 4.65– Composition of primary sector of Koderma



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Mining is the highest contributor to the primary sector with mica, limestone, fire clay, feldspar, metallic stone and other precious stones found in abundance
- Cultivation of fruits like mango, guava, banana, jack – fruit and vegetable like potato, cauliflower, tomato, brinjal etc.
- Sheep, goat and pig rearing is practised as an additional source of income

*Source: District industrial Profile, MSME

The net sown area in the district is about 18040 hectares¹⁸³ out of which about 65% is under multiple cropping¹⁸⁴. Only about 10.8% of the net sown area has irrigation facilities¹⁸⁵.

The two main economic activities of Koderma district are mining & quarrying and agriculture. As in other districts of Chhotanagpur region, Koderma district too is endowed with mineral deposits such as mica, limestone, fire clay, feldspar, metallic stone, china clay, quartz etc.

Agriculture is practiced at a subsistence level. Major crops grown are rice, maize, wheat, pulses, gram, oilseeds and vegetables. Other allied activities such as dairy farming, poultry farming and rearing of sheep/goat and pigs provide for additional support to the agrarian economy of the district.

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 31%¹⁸⁶. The sector has registered a CAGR of 9.64% between 2004-05 and 2008-09 primarily on account of growth in manufacturing activities. Manufacturing activities contributed about 60% of the contribution of the secondary sector to the GDDP.¹⁸⁷

¹⁸² Directorate of Economics and Statistics, Jharkhand

¹⁸³ District Agriculture Plan- Koderma, NABARD Consultancy Services

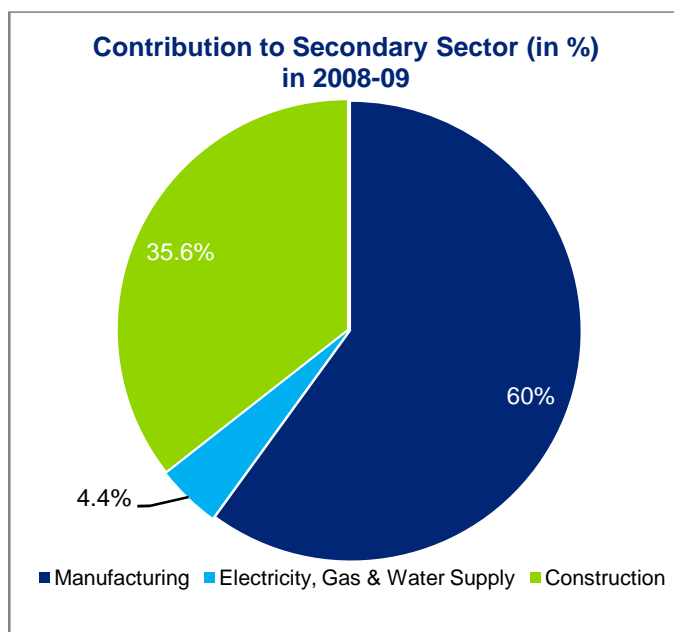
¹⁸⁴ District Agriculture Plan- Koderma, NABARD Consultancy Services

¹⁸⁵ District Agriculture Plan- Koderma, NABARD Consultancy Services

¹⁸⁶ Directorate of Economics and Statistics, Jharkhand

¹⁸⁷ Directorate of Economics and Statistics, Jharkhand

Figure 4.66– Composition of secondary sector of Koderma



Source: Directorate of Economics & Statistics, Jharkhand

- The construction sector contributed 35.6% to the GDDP of secondary sector in 2008-09
- Maximum employment is generated by Tobacco products accounting for 55.50% of industrial workers. It is followed by wood products and Food processing accounting for 14.60% and 6.71%, respectively
- The district has a number of ancillary units engaged in general engineering, machine tools, electrical & electronics supporting larger PSE units such as Damodar Valley Corporation etc.

Source: Jharkhand Development Report 2012

The secondary sector in Koderma constitutes of both small scale and large scale industries. A large share of the industrial employment of the district is accounted for by the tobacco industry. Other prime industries generating employment are wood products and food processing industry.

Tilaiya in Koderma district has become an incubator for small scale industries because of its proximity and easy access to minerals, road-rail connectivity and good power infrastructure. It has a number of mica powder manufacturing units. Talaiya also has numerous sponge iron plants. The Talaiya Ultra Mega Power Project (UMPP) is an upcoming coal-based power plant in the Hazaribagh district, not far away from Jhumri Talaiya. The Koderma Thermal Power station at Banjhedih is another power plant in the area.

The Eastern Central Railways¹⁸⁸ is constructing two railway links, Giridih-Koderma Railway and Koderma-Tilaiya Railway. This rail network will further improve connectivity of the district having a positive impact on the economy.

Tertiary Sector

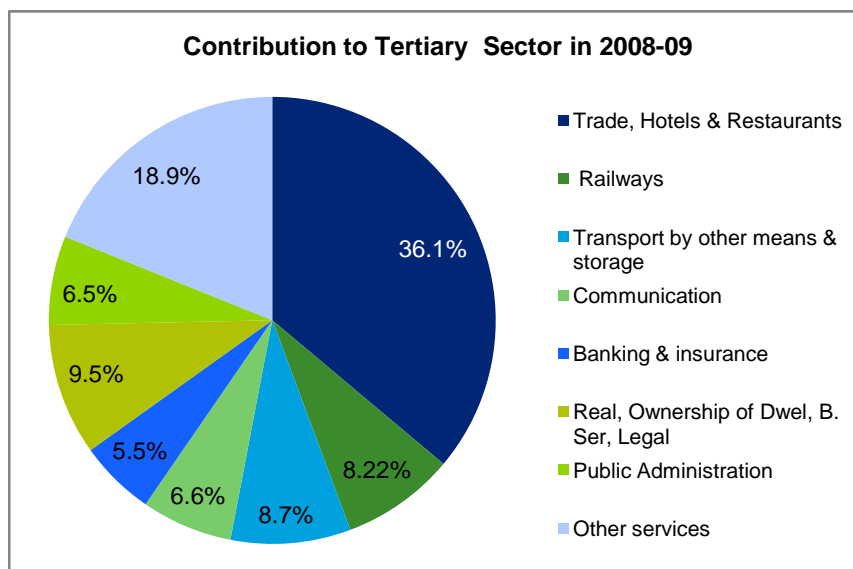
The contribution of the tertiary sector to GDDP was about 52.4 % in 2008-09¹⁸⁹. The sector has registered a CAGR of 7.99% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; and Railways.

The major contributors to the sector Trade, hotel and restaurants; and Railways have grown by CAGR 5.47%, 11.48% in the period between 2004-05 and 2008-09 respectively. Koderma is a popular tourist destination. It has a dense forest cover around the region and is famous for adventure sports. The popular attractions located in Koderma include the artificial reservoir of Talaiya Dam that provides opportunities of boating. Other attractions in Koderma include the Satawagan waterfall in the dense forest area, which is under the authority of the Koderma Forest Reserve.

¹⁸⁸ CMIE Database

¹⁸⁹ Directorate of Economics and Statistics, Jharkhand

Figure 4.67– Composition of tertiary sector of Koderma



Source: Directorate of Economics & Statistics, Jharkhand

Future Growth Opportunities in Koderma

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential.

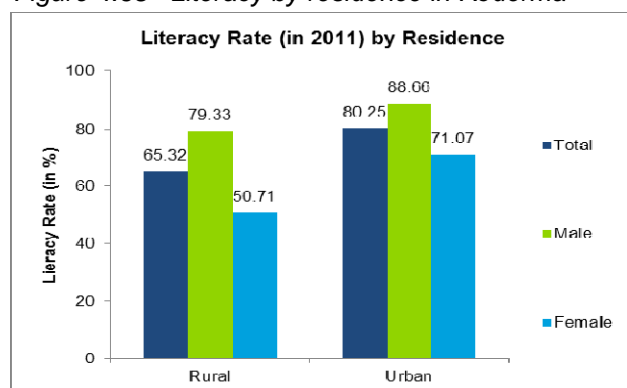
Table 4.72– Focus sectors and growth opportunities in Koderma

Sector/ Industry	Growth Opportunities
Agriculture and Allied Activities	<ul style="list-style-type: none"> Horticulture & Plantation- Cultivable wasteland and other fallow land holds potential for plantation and horticulture crops Jatropha Plantation- Barren & non-agricultural land can be utilised for Jatropha plantations
Food Processing	<ul style="list-style-type: none"> Agro climatic condition of the district issupportive of cross bred animals and hence dairy industry has a huge potential in the region. Agro & food processing- Mango pulp processing etc.
Mineral Products	Mineral based industries such as mineral grinding, processing of minerals, stone-cutting and polishing units have a huge potential in the district.
Textile and garments	Ready-made garments, Cotton under-garments and woolen knitwear
Tourism hospitality and travel trade	It is the highest contributor to the tertiary sector and the district has the potential to be developed as an adventure sports hub.
Building & Construction	Proposed infrastructure development projects along with increasing degree of urbanization in the district are likely to further fuel construction activities.

4.8.3. Education

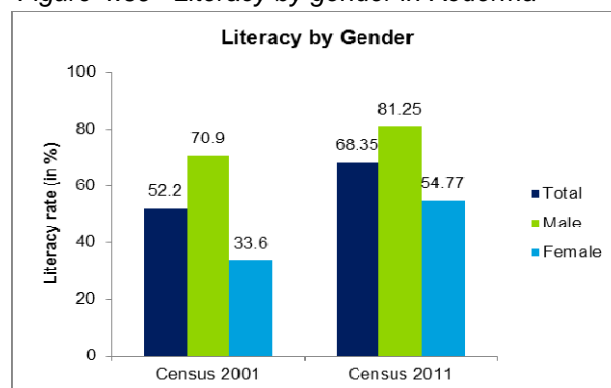
Koderma has a higher literacy rate of 68.35% in comparison to state average of 67.63%¹⁹⁰. It marks significant improvement over literacy rate of 52.2% 2001¹⁹¹. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.68– Literacy by residence in Koderma



Source: Census 2011

Figure 4.69– Literacy by gender in Koderma



Source: Census 2001, Census 2011

Koderma has 798 schools with enrolment of about 1.46 lakhs¹⁹² in primary and upper primary. Enrolment in Government schools account for 96.40% of total enrolment. 93.4% of the students attend upper primary schools after primary education. On the other hand Koderma has 40 secondary and higher secondary schools with enrolment of about 0.20 lakhs only.

In terms of vocational training infrastructure, Koderma has one Government Industrial Training Institute and three private Industrial Training Centres. The courses run at the ITI are Fitter, turner, mechanic radio & T.V. mechanic diesel, electrician, plumber, welder, wireman and stenographer English. The district has private vocational training providers such as NIIT.

Table 4.73– Educational infrastructure in Koderma

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
Programs: Engineering/ Technology	1	300	AICTE list of accredited institutes
B.Ed.	2	200	National Council for Teacher Education
ITIs – Government	1	289	Ministry of Labour, Jharkhand
ITCs – Private	3	570	Ministry of Labour, Jharkhand
Government Polytechnics	1	300	Department of Science and Technology, Jharkhand

¹⁹⁰ Census of India, 2011

¹⁹¹ Census of India, 2001

¹⁹² DISE, 2010-11

4.8.4. Employment Profile

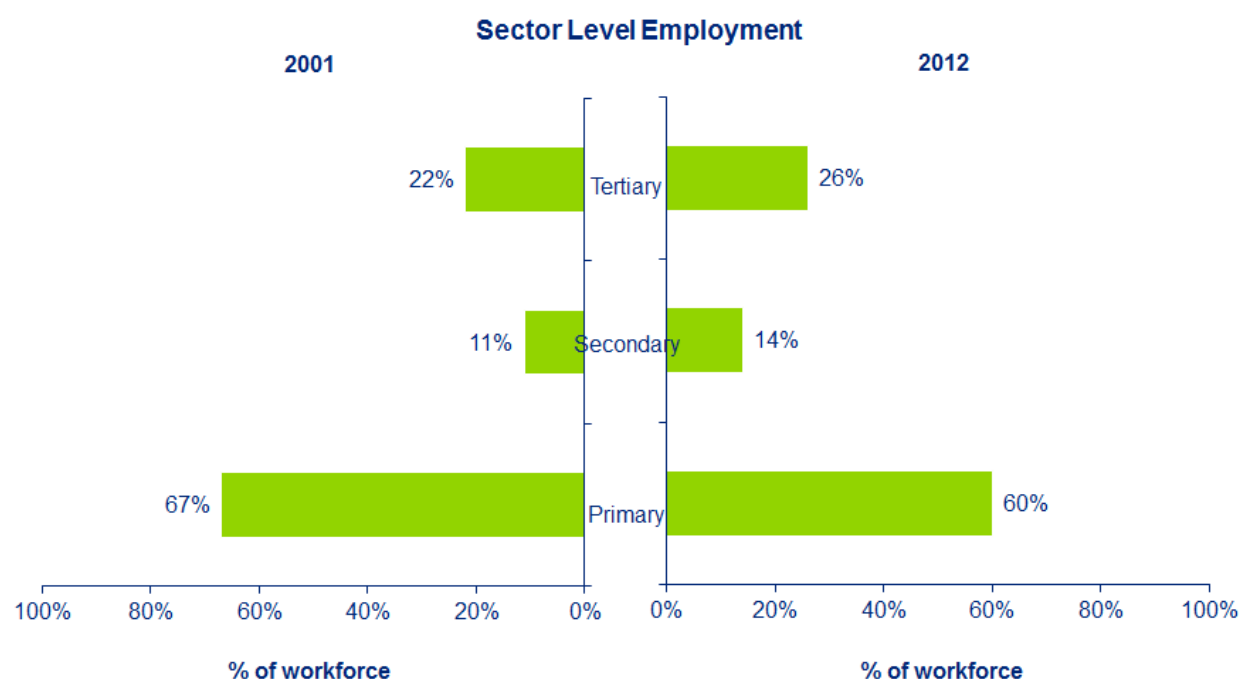
The work participation rate of Koderma was 35% which is lower than the state average of 37.5%¹⁹³. Total workforce is expected to increase to 2.44 lakhs in 2012.

Table 4.74– Employment profile in Koderma

Employment Profile (In Lakhs)	2001 ¹⁹⁴	2012 ¹⁹⁵
Total Population	4.99	7.38
Working Age Population	2.54	4.32
Labour Force	1.86	2.84
Workforce	1.73	2.44

About 67% of the workers in Koderma district were engaged in primary sector in 2001, which is estimated to decrease to about 60% in 2012 on account of increase in opportunities in secondary and tertiary sectors¹⁹⁶.

Figure 4.70– Sector level employment in Koderma



¹⁹³ Census of India, 2011

¹⁹⁴ Census of 2001

¹⁹⁵ Deloitte Analysis

¹⁹⁶ Deloitte Analysis

4.8.5. Skill Gap Assessment

The population of Koderma in 2011 was about 7.17 lakhs which is expected to increase to about 8.49 lakhs in 2017 and about 9.78 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.30 lakhs.

Table 4.75– Estimated workforce of Koderma

Estimated Work Force			
	2011	2017	2022
Population	7,17,169	8,49,432	9,78,101
Working age population	4,20,796	5,18,023	6,19,087
Available Labour Force	2,75,805	3,39,531	4,05,772
Projected Work Force	2,36,492	2,80,587	3,17,043
Incremental manpower supply (2012-22)	1,29,967		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.76– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	1973	2183	4156
Semi-Skilled	4971	3897	8868
Minimally skilled	56782	60161	116943

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.81 lakhs including 0.44 lakhs in organized sectors and 0.36 lakhs in unorganized sectors.

Table 4.77– Incremental manpower demand in Koderma in organized sectors

Incremental Demand – Organized sectors		2012-17			2017-2022		
Sectors		Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector							
Agriculture & allied activities ¹⁹⁷	-	19	164	-	15	126	
Mining and Quarrying	57	115	402	43	86	302	
Total (I)	57	134	566	43	101	428	
Secondary Sector							
Textile and Garments	-	17	144	-	14	119	
Building and Construction	477	1192	3100	374	935	2431	
Food Processing/ Cold Chain/ Refrigeration	108	324	1728	89	267	1426	
Wood / Wooden based furniture	25	25	456	21	21	377	
Mineral and Metal based Products	92	276	92	76	228	76	
Electricity Gas and Water Supply	10	14	16	7	10	12	
Other Manufacturing	23	38	90	19	31	75	
Total (II)	750	1901	5632	598	1518	4519	
Tertiary Sector							
Tourism Hospitality and Travel Trade	3318	3318	1659	2592	2592	1296	
Transportation & Logistics/ warehousing/ packaging	119	238	832	96	192	671	
Real Estate Services	514	514	1029	580	580	1161	
Media & Entertainment	324	292	32	294	265	29	
Healthcare Services	98	823	0	21	151	0	
Banking Insurance & Finance	693	81	41	755	89	44	
Education/ Skill Development Services	665	626	0	913	397	0	
Total (III)	5732	5893	3593	5252	4266	3201	
Grand Total (I+II+III)	6544	7927	9791	5898	5885	8149	
Total Incremental Demand				44196			

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.36 lakhs in the next 10 years.

Table 4.78– Incremental manpower demand in Koderma in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	16807	12921
Others	2802	3946
Total	19609	16867
Total Incremental Demand – Unorganized Sectors		36475

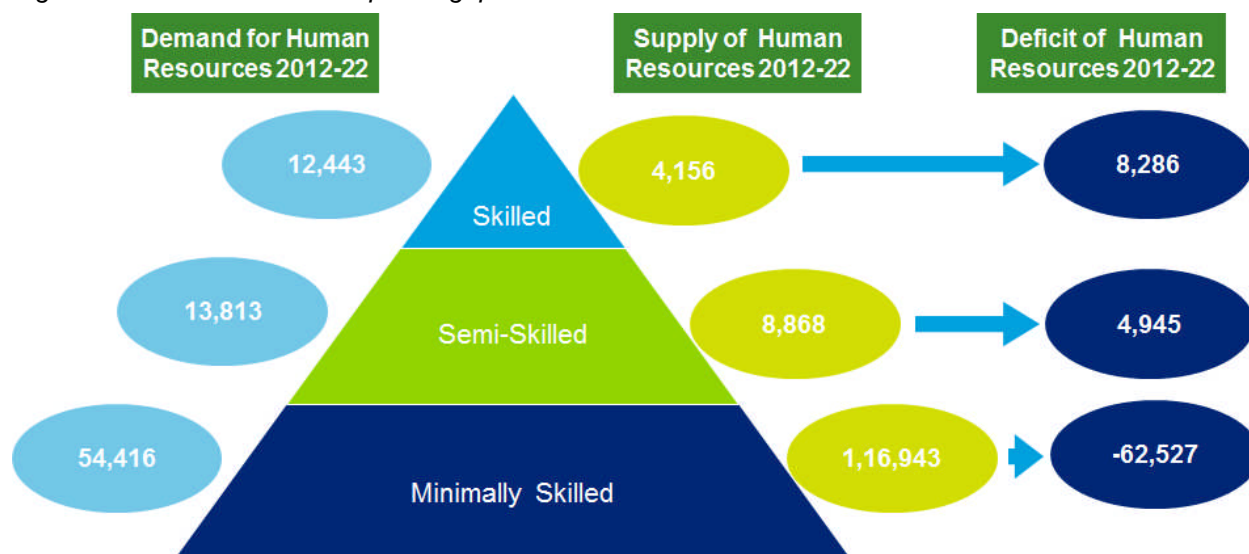
¹⁹⁷ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.49 lakhs¹⁹⁸, indicating an excess of supply.

Figure 4.71– Incremental manpower gap in Koderma



Qualitative Skill Gaps

Table 4.79– Qualitative skill gaps in high demand sectors in Koderma

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of vernacular languages - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques
Tourism,	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills

¹⁹⁸ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
hospitality & travel		<ul style="list-style-type: none"> - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills

4.8.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students, with whom we interacted, aspire of getting government jobs especially in Indian railways
- Some of the students especially from electrical and mechanic trades want to work with NTPC
- Majority of the students were of the opinion that the institutes should provide training for soft skills which will help them in personal interviews for employment. Some of the students underlined the importance of computer training for getting jobs
- Due to paucity of local industries, majority of vocationally trained students migrate to other districts/ states for getting a job

The youth in the district felt the need of more vocational training institutions in the district

Source: Focus Group Discussion, Koderma

4.8.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Food Processing
- Priority industries for skill development in tertiary sector are (i) Travel Trade (ii) Real Estate Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Koderma, the proposed action plan would consist of the following priority areas:

Table 4.80– Recommendations and action points for Koderma

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel - Building & construction - Real Estate Services
Skill development	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus

Stakeholder	Action points
institutes (ITI/ ITC)	<p>on placement opportunities in the following sectors:</p> <ul style="list-style-type: none"> - Real estate services - Building & construction <ul style="list-style-type: none"> • Update machinery & provide manuals in workshops for practical classes • Develop courses for emerging sectors like <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel • Focus on developing communication skills& basic IT skills of the students • Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> • Engage with industry players like NTPC and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> - Horticulture & Plantation - Jatropha Plantation • Focus on supporting creation of micro-enterprises in food processing and services sector such as hotels & restaurants, coaching institutes etc. in the district • Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Food processing - Travel Trade

4.9 Lohardaga

The District of Lohardaga is located in the south western part of Jharkhand. It is bounded by Latehar district in north, Gumla in south and west and Ranchi in the east. The district is spread over 153.62 thousand hectares which constitutes about 2% of total geographical area of Jharkhand. For administrative purpose the district has been divided into 5 development blocks namely Lohardaga, Bhandra, Kisko, Senha and Kuru.

4.9.1. Demography

Lohardaga has a population of 4.61 lakhs as of 2011 of which about 12.43% reside in urban areas¹⁹⁹. The urban population of Lohardaga is much lower in comparison to the state average. The district is sparsely populated with 310 persons per sq. km. in comparison to the state average of 414²⁰⁰. The district has a higher sex ratio than the state.

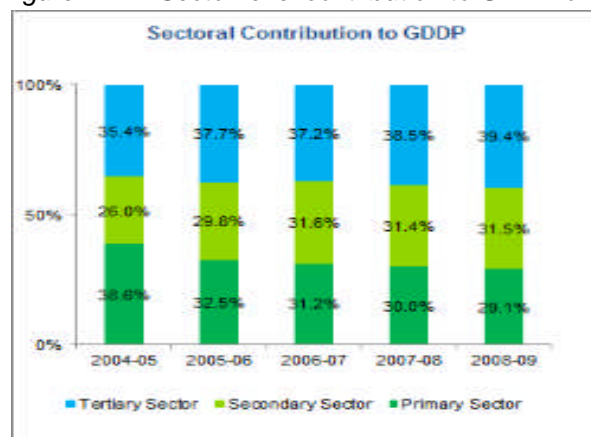
Table 4.81– Demography of Lohardaga

Demography	Lohardaga	Jharkhand
Population (2011)	4,61,738	3,29,66,238
Decadal Population Growth Rate (2001-11)	26.67%	22.34%
Population density per sq. km (2011)	310	414
Sex Ratio (2011)	985	947
Percentage of Urban Population (2011)	12.43%	24%
Percentage of SC Population (2001)	3.5%	11.8%
Percentage of ST Population (2001)	55.7%	26.3%

4.9.2. Economic Profile

Gross District Domestic Product (GDDP) of Lohardaga has grown at a lower growth rate (CAGR) of 5.49% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period²⁰¹. Tertiary sector contributes about 39.4% of the GDDP primarily on account of contribution coming from Trade, hotels and restaurants sector.

Figure 4.72– Sector level contribution to GDDP of Lohardaga



Source: Directorate of Economics & Statistics, Jharkhand

¹⁹⁹ Census of India, 2011

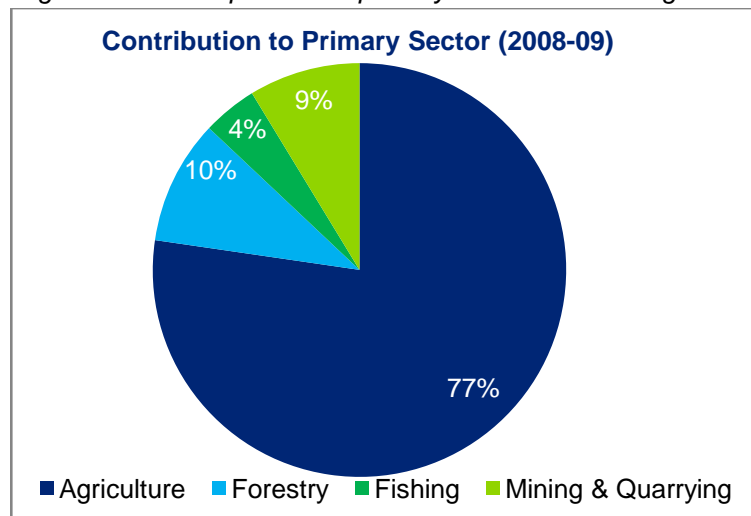
²⁰⁰ Census of India, 2011

²⁰¹ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 29% to the GDDP in 2008-09²⁰². The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account increasing contribution of secondary & tertiary sectors.

Figure 4.73– Composition of primary sector of Lohardaga



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Mango, Guava, custard apple and jackfruit are major horticulture crops cultivated in the district
- Sericulture practice is being carried out mainly in Lohardaga and Bhandra blocks of the district
- Poultry, Dairy development, rearing of Sheep, goat and pigs widely practiced in the district and provide support to the subsistence level agrarian economy

*Source: District Agriculture Plan- Lohardaga, MSME

The economy of the district is predominantly agrarian. The district has a net sown area of 44659 hectares of which only 12.87% has irrigation facilities²⁰³. Agriculture and allied activities are the main source of income for majority of the people especially those residing in the rural areas. Forestry and Logging is the second highest contributor to the GDDP of the primary sector in Lohardaga with about 32-35% of the total area of the district being under forest cover. Two blocks i.e. Kisko & Senha has large areas under dense forest cover. Important forest products are Saal seeds, Kokun, Lac, Tendu leaves, Karanj & Chiraunji. The major trees in the district are Sal Bija, Gamhar, Kathal, Jamun, Mango, Bamboo and Neem.

The major crops of the district are paddy and vegetables. Vegetables grown in the district are supplied to far off places like Rourkela in Orissa and Kolkata in West Bengal. Custard apple, jackfruit, mango, guava, papaya are important horticulture crops grown. Apart from these, the district produces surplus poultry meat and milk which caters to the needs of neighboring districts also.

The main mineral resources found in the district are laterite and bauxite. In addition to this china clay is also found. HINDALCO sources bauxite from Lohardaga.

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 39.4%²⁰⁴. The sector has registered a CAGR of 8.31% between 2004-05 and 2008-09 primarily on account of growth in manufacturing and Electricity, water and gas supply. Manufacturing activities contributed about 81% of the contribution of the secondary sector to the GDDP.²⁰⁵

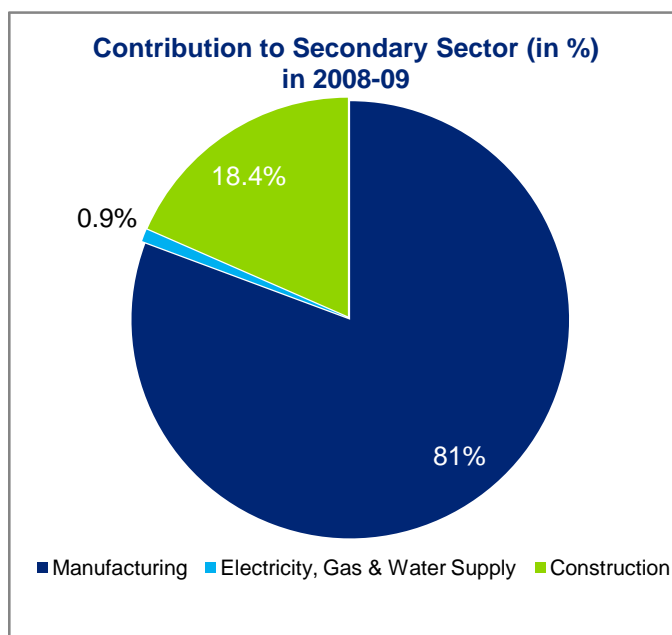
²⁰² Directorate of Economics and Statistics, Jharkhand

²⁰³ District Agriculture Plan- Lohardaga, NABARD Consultancy Services

²⁰⁴ Directorate of Economics and Statistics, Jharkhand

²⁰⁵ Directorate of Economics and Statistics, Jharkhand

Figure 4.74– Composition of secondary sector of Lohardaga

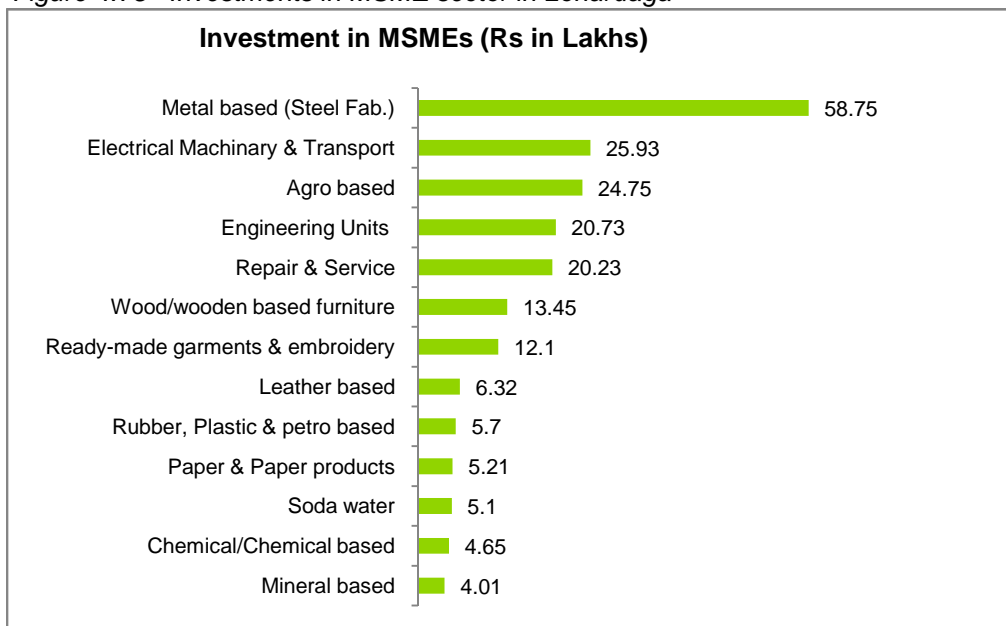


Source: Directorate of Economics & Statistics, Jharkhand

The secondary sector of the district comprises primarily of small scale industry based on agriculture, forest, mining, machinery fabrication, leather goods, electrical goods, printing and road transportation etc. The district also houses a steel plant being run by Birla industries. Cottage industry manufacturing Kalins is also prominent in the district.

Lohardaga with its rich natural resources has the potential to attract investment in medium and large scale industries.

Figure 4.75– Investments in MSME sector in Lohardaga

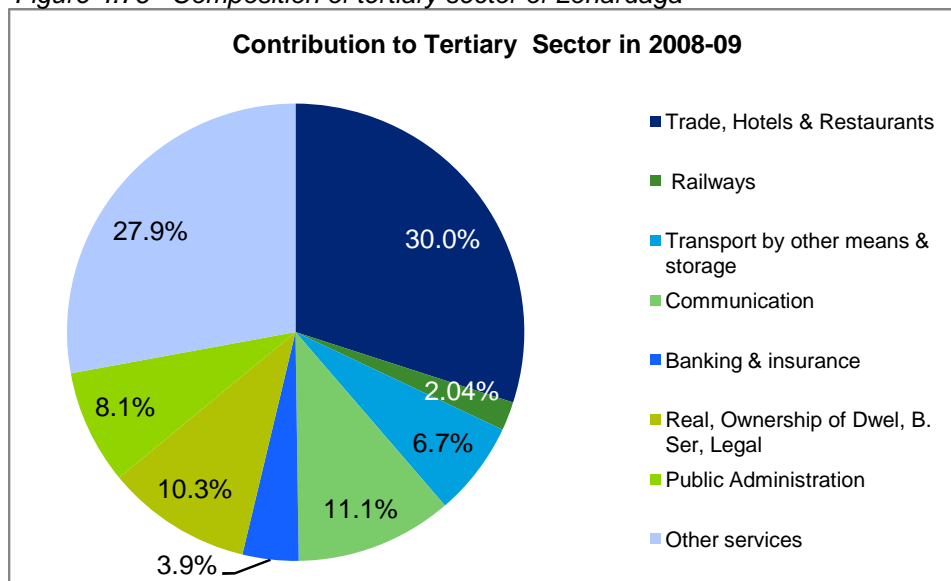


Source: District Industrial Profile, DC-MSME

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 39.4% in 2008-09²⁰⁶. The sector has registered a CAGR of 8.31% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; and Real Estate.

Figure 4.76– Composition of tertiary sector of Lohardaga



Source: Directorate of Economics & Statistics, Jharkhand

The major contributors to the sector Trade, hotel and restaurants; and Real Estate have grown by CAGR of 5.48% and 9.73% in the period between 2004-05 and 2008-09 respectively. The dense forest cover in the district holds potential for development of eco-tourism.

Future Growth Opportunities in Lohardaga

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.82– Focus sectors and growth opportunities in Lohardaga

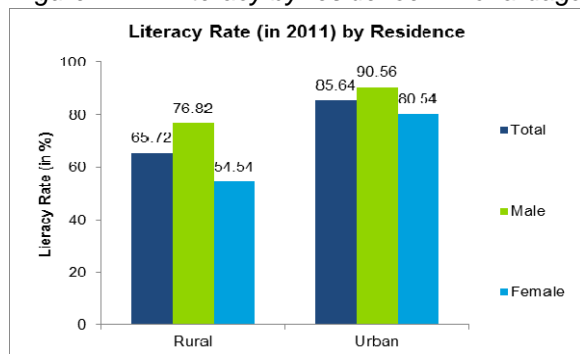
Sector/ Industry	Growth Opportunities
Agro-based	Lohardaga has immense potential in this sphere. The climate and geographical location of the district makes the following activities conducive: <ul style="list-style-type: none"> Plantation & Horticulture- Custard apple, Jackfruit, Mango, Guava, Papaya Sericulture Forestry & Wasteland Development Dairy/Poultry/Fisheries Development
Mineral & Metal based	Bauxite is found in abundance in the district with potential for mineral & metal based industries to grow further.
Wood/wooden based furniture	The thick forest cover in the district provides easy availability of wood for further growth in Wood/ wooden based furniture industry
Tourism hospitality and travel trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector good rail and road connectivity

²⁰⁶ Directorate of Economics and Statistics, Jharkhand

4.9.3. Education

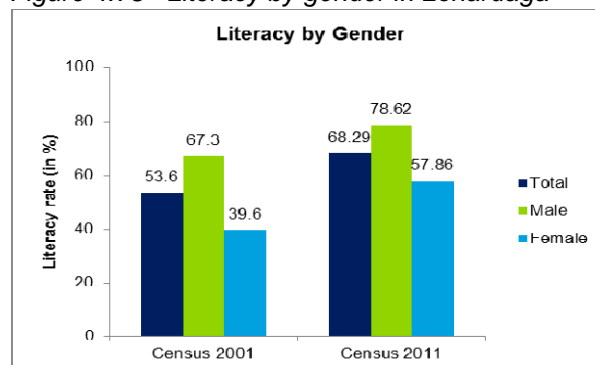
Lohardaga has a higher literacy rate of 68.29% in comparison to state average of 67.63%²⁰⁷. It marks significant improvement over literacy rate of 53.6% 2001²⁰⁸. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.77– Literacy by residence in Lohardaga



Source: Census 2011

Figure 4.78– Literacy by gender in Lohardaga



Source: Census 2001, Census 2011

Lohardaga has 683 schools with enrolment of about 1.04 lakhs²⁰⁹ in primary and upper primary. Enrolment in Government schools account for 91.9% of total enrolment. Only 84.3% of the students attend upper primary schools after primary education. On the other hand, Lohardaga has 27 secondary and higher secondary schools with enrolment of about 0.21 lakhs only.

Lohardaga has no institutes offering AICTE accredited programs in the field of engineering/ technology, management and computer application as highlighted in the table below. In terms of vocational training infrastructure, Lohardaga has one Government Industrial Training Institute and no private Industrial Training Centre. Major trades offered in the Government ITI are Electricians, turner, fitter, Mechanic Motor vehicle, machinist, mechanic general electronics, hair & skin care, diesel mechanic, English stenographer and welder. Lohardaga has no Government polytechnic or similar private institutions. The district has very limited presence of private vocational training providers.

Table 4.83– Educational infrastructure in Lohardaga

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	2	200	National Council for Teacher Education
ITIs – Government	1	374	Ministry of Labour, Jharkhand

²⁰⁷ Census of India, 2011

²⁰⁸ Census of India, 2001

²⁰⁹ DISE, 2010-11

4.9.4. Employment Profile

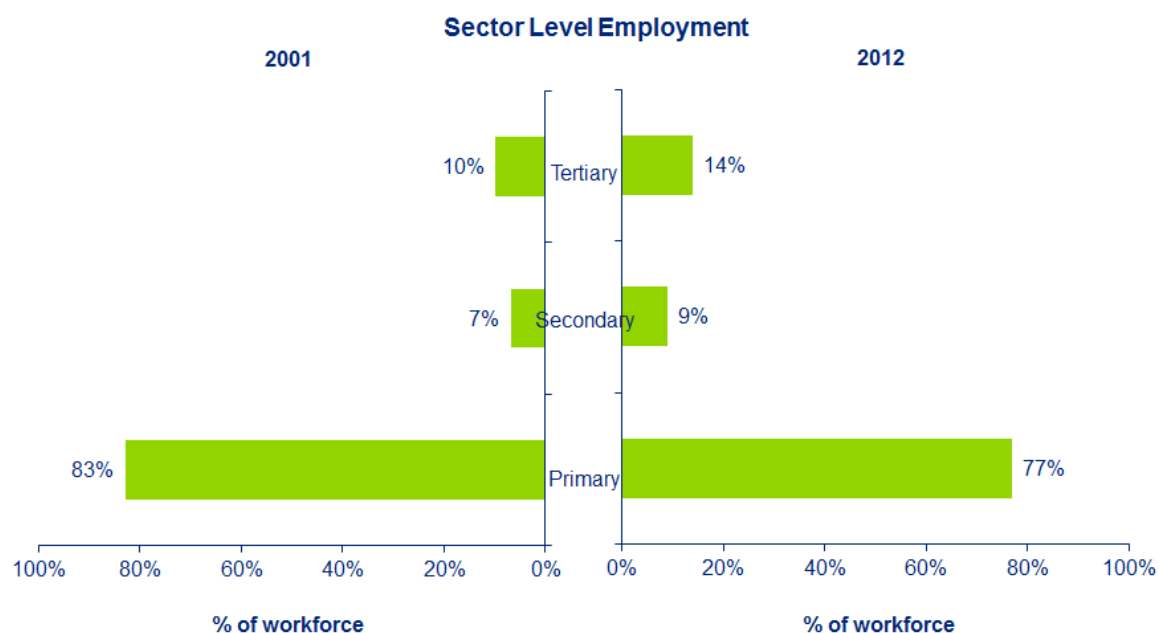
The work participation rate of Lohardaga was 42.1% which is higher than the state average of 37.5%²¹⁰. Total workforce is expected to increase to 1.91 lakhs in 2012.

Table 4.84– Employment profile in Lohardaga

Employment Profile (In Lakhs)	2001 ²¹¹	2012 ²¹²
Total Population	3.65	4.73
Working Age Population	1.84	2.75
Labour Force	1.64	2.12
Workforce	1.53	1.91

About 83% of the workers in Lohardaga district were engaged in primary sector in 2001, which is estimated to decrease to about 77% in 2012 on account of increase in opportunities in secondary and tertiary sectors²¹³.

Figure 4.79– Sector level employment in Lohardaga



²¹⁰ Census of India, 2011

²¹¹ Census of 2001

²¹² Deloitte Analysis

²¹³ Deloitte Analysis

4.9.5. Skill Gap Assessment

The population of Lohardaga in 2011 was about 4.62 lakhs which is expected to increase to about 5.32 lakhs in 2017 and about 5.99 lakhs in 2022. As per the methodology highlighted in section 2 the estimated incremental manpower supply will be about 0.83 lakhs.

Table 4.85– Estimated workforce of Lohardaga

Estimated Work Force			
	2011	2017	2022
Population	4,61,738	5,32,107	5,98,874
Working age population	2,68,678	3,22,250	3,76,894
Available Labour Force	2,06,951	2,48,215	2,90,305
Projected Work Force	1,87,708	2,09,168	2,26,727
Incremental manpower supply (2012-22)	83354		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.86– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	4365	5130	9495
Semi-Skilled	1460	1122	2582
Minimally skilled	35439	35838	71277

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.39 lakhs including 0.19 lakhs in organized sectors and 0.20 lakhs in unorganized sectors.

Table 4.87– Incremental manpower demand in Lohardaga in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ²¹⁴	-	10	85	-	-	62
Mining and Quarrying	-	19	66	-	14	50
Total (I)	-	29	151	-	14	112
Secondary Sector						
Textile and Garments	-	-	48	-	-	40
Leather and Leather Goods	-	-	102	-	-	85
Chemical & Pharmaceuticals	15	25	10	12	21	8
Building and Construction	172	431	1120	140	351	913
Food Processing/ Cold Chain/ Refrigeration	47	140	745	39	116	620
Wood / Wooden based furniture	-	-	107	-	-	89
Structural Metal Products	-	16	-	-	13	-
Non Metallic Mineral Products	257	770	257	214	641	214
Other Manufacturing	33	55	133	28	46	111
Total (II)	544	1454	2528	450	1203	2085
Tertiary Sector						
IT/ ITES-BPO services	7	3	1	19	9	1
Tourism Hospitality and Travel Trade	1159	1159	579	905	905	453
Transportation & Logistics/ warehousing/ packaging	27	54	190	22	44	153
Real Estate Services	231	231	462	256	256	512
Media & Entertainment	222	200	22	200	180	20
Healthcare Services	37	323	0	11	78	0
Banking Insurance & Finance	180	21	11	187	22	11
Education/ Skill Development Services	401	374	0	422	86	0
Total (III)	2264	2367	1266	2025	1586	1153
Grand Total (I+II+III)	2820	3850	3944	2484	2811	3349
Total Incremental Demand	19258					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.20 lakhs in the next 10 years.

Table 4.88– Incremental manpower demand in Lohardaga in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	8655	6329
Drivers	434	492
Domestic help	705	669
Others	1089	1447
Total	10883	8937
Total Incremental Demand – Unorganized Sectors	19820	

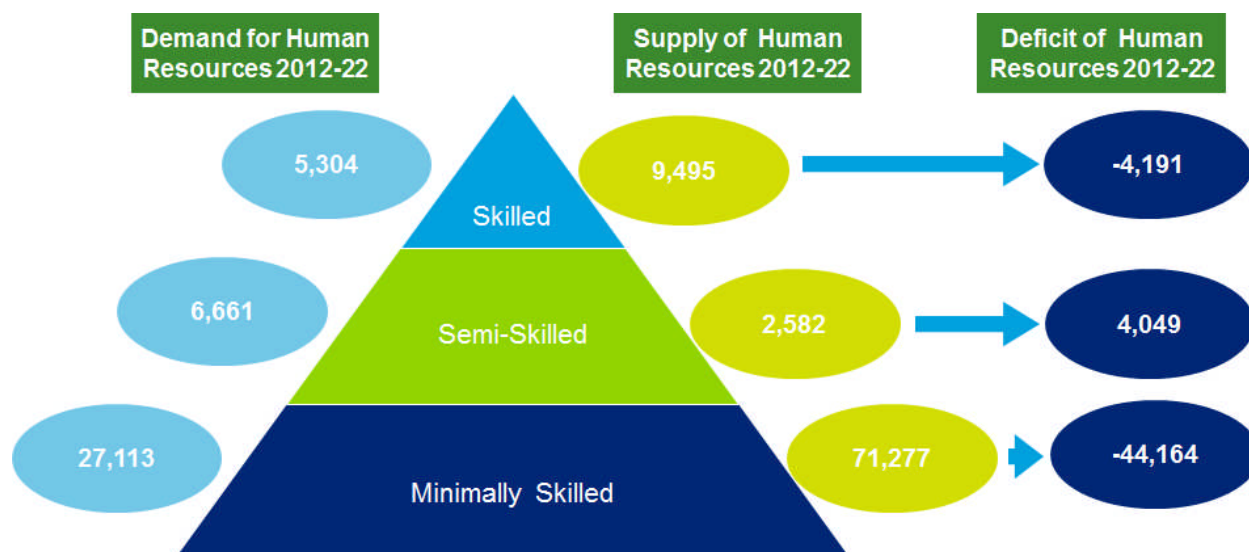
²¹⁴ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.44 lakhs²¹⁵, indicating an excess of supply.

Figure 4.80– Incremental manpower gap in Lohardaga



Qualitative Skill Gaps

Table 4.89– Qualitative skill gaps in high demand sectors in Lohardaga

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills

²¹⁵The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
Non-metallic mineral products	Quality Controller	- Inadequate knowledge of sampling techniques
	Supervisor	- Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	- Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
TravelTrade	Sales/ Marketing	- Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
	Hotel Manager	- Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	- Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	- Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	- Inadequate curtsy level - Lack of discipline - Insufficient communication skills

4.9.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of youth with whom we interacted in the district aspire to become teachers or join healthcare services.
- Many of the students feel that basic functional knowledge of computers is mandatory in addition of being technically strong for getting a good job and being successful in their career.
- Most of the students feel that the courses are not modelled based on the local industry requirements. Some of the students also aspire to go for higher studies.

Most of youth with whom we interacted in the district aspire to become teachers or join healthcare services

Source: Focus Group Discussion, Lohardaga

4.9.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Food Processing (iii) Non Metallic Mineral Products

- Priority industries for skill development in tertiary sector are (i) Travel Trade (ii) Education & Skill Development Services (iii) Real Estate Services
- Excess supply of skilled and minimally skilled manpower in district

Considering economic and skill landscape of Lohardaga, the proposed action plan would consist of the following priority areas:

Table 4.90– Recommendations and action points for Lohardaga

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Travel Trade - Food Processing - Non-Metallic Mineral Products - Education and Skill Development Services
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Education & skill development - Non-metallic mineral products industry - Food Processing • Update machinery & provide manuals in workshops for practical classes • Develop courses for emerging sectors like <ul style="list-style-type: none"> - Travel Trade • Focus on developing communication skills& basic IT skills of the students • Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for sourcing workers for industries in industrial belt of Ranchi, Jamshedpur, Dhanbad and Bokaro; ensuring proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes in the district • Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): <ul style="list-style-type: none"> - Plantation and Horticulture - Dairy/ Poultry/ Fisheries • Focus on supporting creation of micro-enterprises/ ancillaries for food processing and mineral based products industries in the district • Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA • Engage with industry players like DVC and industry associations like CII &Lohardaga Chamber of Commerce to develop vocational training curriculum with focus on increasing employability of passing out students
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development/ educational institutes in capacity building of instructors/ teachers • Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Non-metallic mineral products industry - Food processing

4.10 East Singhbhum

East Singhbhum district is situated at the southeast corner of Jharkhand. The district is bounded in the east by Midnapore district, on the north by Purulia district, both of West Bengal, on the west by West Singhbhum district of Jharkhand state, and on the south by Mayurbhanj district of Odisha. The district is spread over 556.69 thousand hectares which constitutes about 7% of total geographical area of Jharkhand. For administrative purpose the district has been divided into two Sub-Division Dhalbhum and Ghatshila. The district consists of eleven blocks namely Golmuri-cum-Jugsalai(Jamshedpur), Potka, Patamda and Boram in Dhalbhum Sub-Division and Ghatshila, Musabani, Dumaria, Baharagora, Dhalbhumgarh, Chakulia and Gurabandha in Ghatshila Sub-Division.

4.10.1. Demography

East Singhbhum has a population of 22.91 lakhs as of 2011 of which about 55.6% reside in urban areas²¹⁶. The urban population of East Singhbhum is much higher in comparison to the state average. The district is densely populated with 648 persons per sq. km. in comparison to the state average of 414²¹⁷. The district has a higher sex ratio than the state.

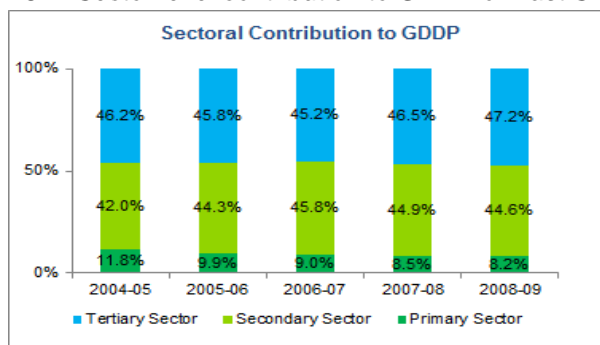
Table 4.91– Demography of East Singhbhum

Demography	East Singhbhum	Jharkhand
Population (2011)	22,91,032	3,29,66,238
Decadal Population Growth Rate (2001-11)	15.53%	22.34%
Population density per sq. km (2011)	648	414
Sex Ratio (2011)	949	947
Percentage of Urban Population (2011)	55.6%	24%
Percentage of SC Population (2001)	4.7%	11.8%
Percentage of ST Population (2001)	27.8%	26.3%

4.10.2. Economic Profile

Gross District Domestic Product (GDDP) of East Singhbhum has grown at a higher growth rate (CAGR) of 8.67% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period²¹⁸. Tertiary sector contributes about 47.2% of the GDDP primarily on account of contribution coming from Trade, hotels and restaurants sector.

Figure 4.81– Sector level contribution to GDDP of East Singhbhum



Source: Directorate of Economics & Statistics, Jharkhand

²¹⁶ Census of India, 2011

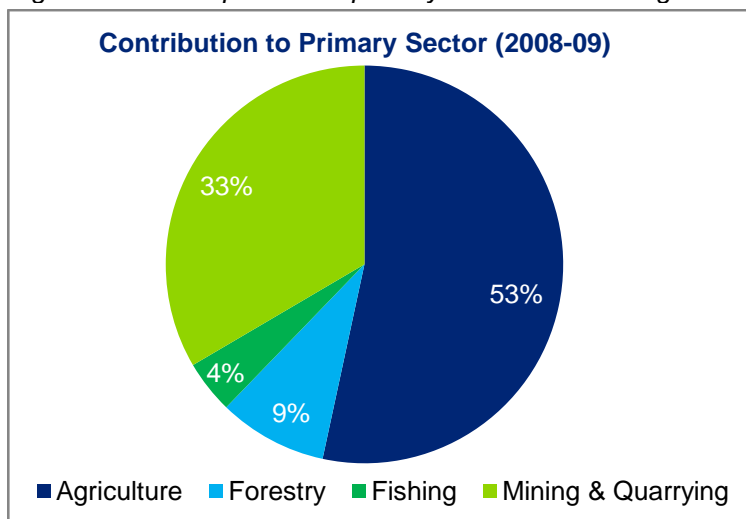
²¹⁷ Census of India, 2011

²¹⁸ Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 8% to the GDDP in 2008-09²¹⁹. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account of increasing contribution of secondary & tertiary sectors.

Figure 4.82– Composition of primary sector of East Singhbhum



Source: Directorate of Economics & Statistics, Jharkhand

East Singhbhum is a highly industrialized district. Agriculture and allied activities contribute a small share to the district's GDDP. The main cereals grown in the district are paddy, maize, ragi, wheat, barley, bajara and jowar. The cultivation of pulses includes gram, arhar, kulthi, urad, pea, khesari, masoor, moong and some other pulses too. Among oilseeds, groundnut, rape mustard, linseed, sarguja, til and sunflower are cultivated.

About 23% of the total geographical area of the district is covered with forests with trees like sal, peasal, mohua, assan, karanj, kendu etc. The tribal in the district are mostly dependent on the forest products.

After agriculture, mining & quarrying is the second largest contributor to the GDDP of the primary sector. The district is rich in minerals such as pyroxenite, gold, kyanite, quartzite, magnetite and copper.

Secondary sector

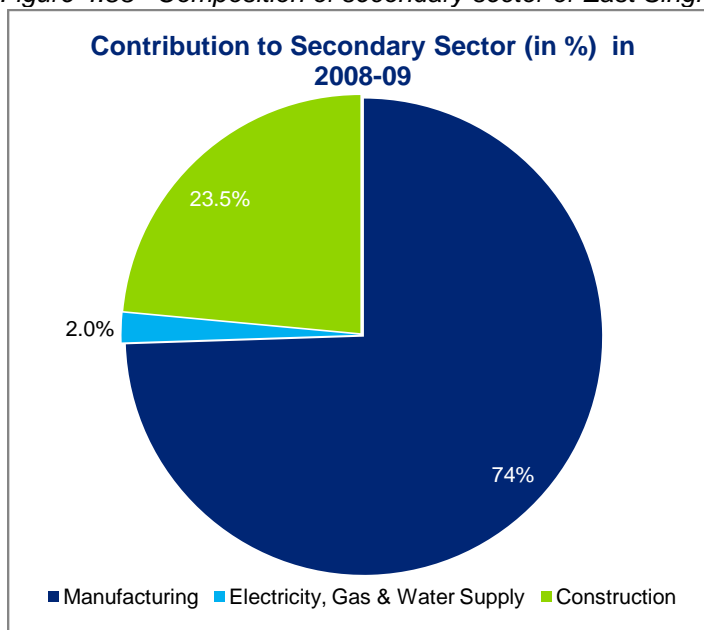
The contribution of secondary sector to district GDP in 2008-09 was about 44.6%²²⁰. The sector has registered a CAGR of 10.33% between 2004-05 and 2008-09 primarily on account of growth in manufacturing and construction activities. Manufacturing activities contributed about 74% of the contribution of the secondary sector to the GDDP.²²¹

²¹⁹ Directorate of Economics and Statistics, Jharkhand

²²⁰ Directorate of Economics and Statistics, Jharkhand

²²¹ Directorate of Economics and Statistics, Jharkhand

Figure 4.83– Composition of secondary sector of East Singhbhum



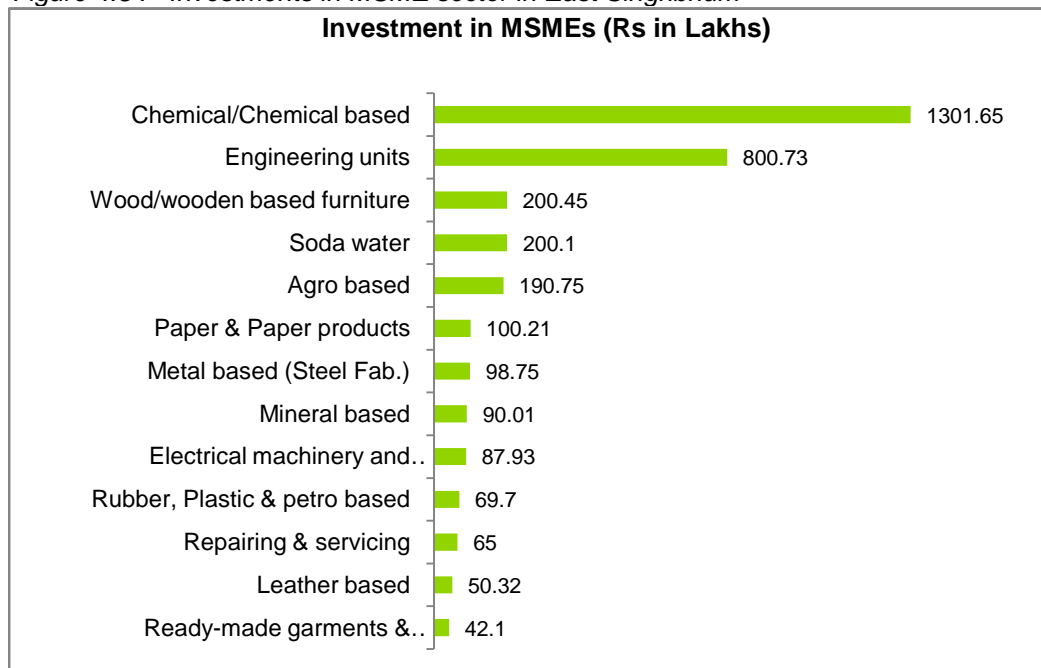
Source: Directorate of Economics & Statistics, Jharkhand

Jamshedpur, the district headquarters, is one of the leading industrial cities of the country. Some of the major prominent industrial players present in the district include Tata group of companies, Hindustan Copper Limited, Uranium Corporation etc. Some of the major products manufactured in the district include auto & auto components, steel, iron and steel castings, aluminum alloy components, iron billets, railway components, internal combustion engines, paints etc.

Some of the major Tata group companies located in the district includes Tata Steel, Tata Motors, Tata Refractories, Tata Pigments, and Tata Power etc.

Presence of large scale industries in the district has been a major reason for growth of MSMEs which has seen major investments in the last few years.

Figure 4.84– Investments in MSME sector in East Singhbhum



Source: District Industrial Profile, DC-MSME

Large and Medium Investments in E. Singhbhum

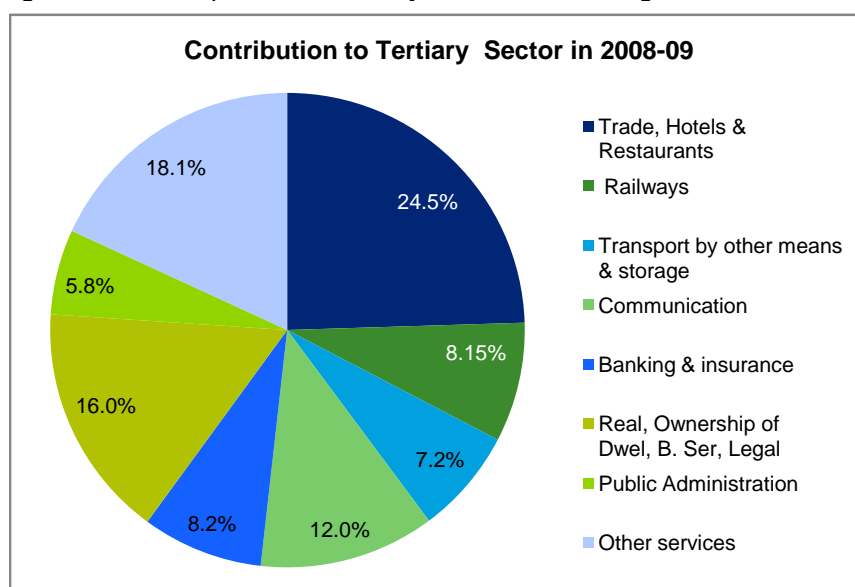
- Jamshedpur Injection Powder Limited has invested Rs.220 Million in a de-sulphurising compound project
- BOC India Limited is investing Rs. 2201.4 Million for expansion
- Tata Pigments Limited is investing in a dry cement project and synthetic iron oxide expansion project
- Tata Steel Limited has invested Rs.3200 Million for capacity expansion
- Tata Cummins Limited has invested in a Diesel Engine project worth Rs.3000 Million

(Source: CMIE Database, District Industrial Profile (East Singhbhum))

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 47.2% in 2008-09²²². The sector has registered a CAGR of 9.28% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; and Real Estate.

Figure 4.85– Composition of tertiary sector of East Singhbhum



Source: Directorate of Economics & Statistics, Jharkhand

The major contributors to the sector Trade, hotel and restaurants; Real Estate have grown by CAGR 5.47%, and 9.73% in the period between 2004-05 and 2008-09 respectively.

The district as been witnessing large scale investments that has given a major thrust to the tertiary sector. Real estate sector has been growing owing to rapid urbanisation in the district. The district also boasts of natural beauty. Some of the major tourist attractions are Dimna Lake, Dalma Wildlife Sanctuary, Rankini Temple and Tata Zoological Park.

²²² Directorate of Economics and Statistics, Jharkhand

Future Growth Opportunities in East Singhbhum

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

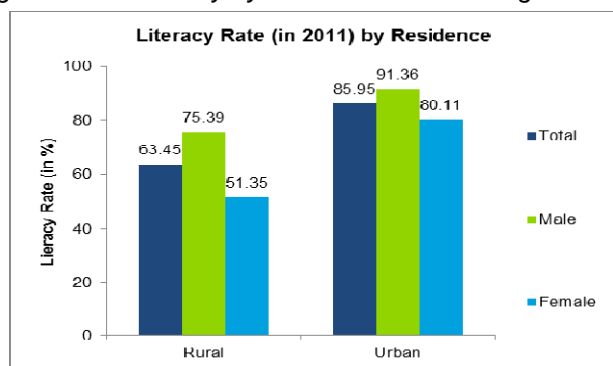
Table 4.92– Focus sectors and growth opportunities in East Singhbhum

Sector/ Industry	Growth Opportunities
Mineral based	The district is rich in minerals and hence mineral based industries are expected to continue to grow in the district
Iron & steel based	It is the highest contributor to the manufacturing sector and is expected grow at a higher growth rate on account of proposed investments in the sector
Auto & Auto-components	The sector is expected to further grow in the district due to presence of OEMs and large number of auto ancillaries.
Chemical & Chemical based	Chemical industry has seen the highest investments in the MSME sector in the recent past
Tourism hospitality and travel trade	It is the highest contributor to the tertiary sector and is expected to continue to grow at a similar rate on account of growth in secondary and tertiary sector and further development in infrastructure

4.10.3. Education

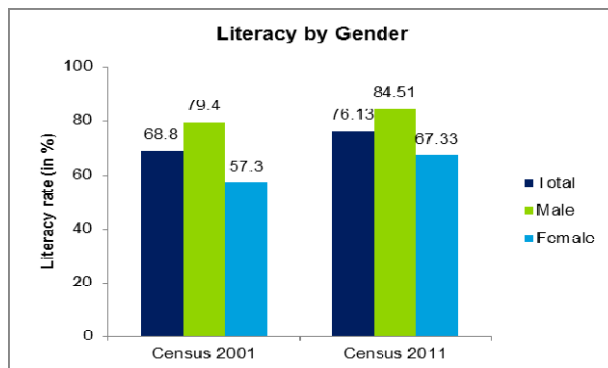
East Singhbhum has a higher literacy rate of 76.13% in comparison to state average of 67.63%²²³. It marks significant improvement over literacy rate of 68.8% 2001²²⁴. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.86– Literacy by residence in East Singhbhum



Source: Census 2011

Figure 4.87– Literacy by gender in East Singhbhum



Source: Census 2001, Census 2011

East Singhbhum has 2310 schools with enrolment of about 3.24 lakhs²²⁵ in primary and upper primary. Enrolment in Government schools account for 66.2% of total enrolment. About 93.2% of the students attend upper primary schools after primary education. On the other hand, East Singhbhum has 216 secondary and higher secondary schools with enrolment of about 0.95 lakhs only.

East Singhbhum has many institutes offering AICTE accredited programs in the field of engineering/technology, management and computer application as highlighted in the table below. In terms of vocational training infrastructure, East Singhbhum has two Government Industrial Training Institute and twenty five private Industrial Training Centres. Major trades offered in the Government ITI are

²²³ Census of India, 2011

²²⁴ Census of India, 2001

²²⁵ DISE, 2010-11

Electricians, turner, fitter, Mechanic Motor vehicle, machinist, mechanic general electronics, information technology, diesel mechanic and stenographer (English). East Singhbhum has three Government polytechnics and one similar private institution. The district has a presence of private vocational training providers such as NIIT.

Table 4.93– Educational infrastructure in East Singhbhum

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
Programs: Engineering/ Technology	7	2008	AICTE list of accredited institutes
Architecture	1	60	AICTE list of accredited institutes
MCA	1	60	AICTE list of accredited institutes
Pharmacy	1	60	AICTE list of accredited institutes
B.Ed.	1	100	National Council for Teacher Education
ITIs – Government	2	313	Ministry of Labour, Jharkhand
ITCs – Private	25	6582	Ministry of Labour, Jharkhand
Government Polytechnics	3	420	Department of Science and Technology, Jharkhand
Private Polytechnics	1	480	AICTE list of accredited institutes

4.10.4. Employment Profile

The work participation rate of East Singhbhum was 34.9% which is lower than the state average of 37.5%²²⁶. As per Deloitte analysis, total workforce of East Singhbhum is expected to be 9.84 lakhs in 2012.

Table 4.94– Employment profile in East Singhbhum

Employment Profile (In Lakhs)	2001 ²²⁷	2012 ²²⁸
Total Population	19.83	23.24
Working Age Population	12.03	15.56
Labour Force	8.06	9.96
Workforce	6.66	9.84

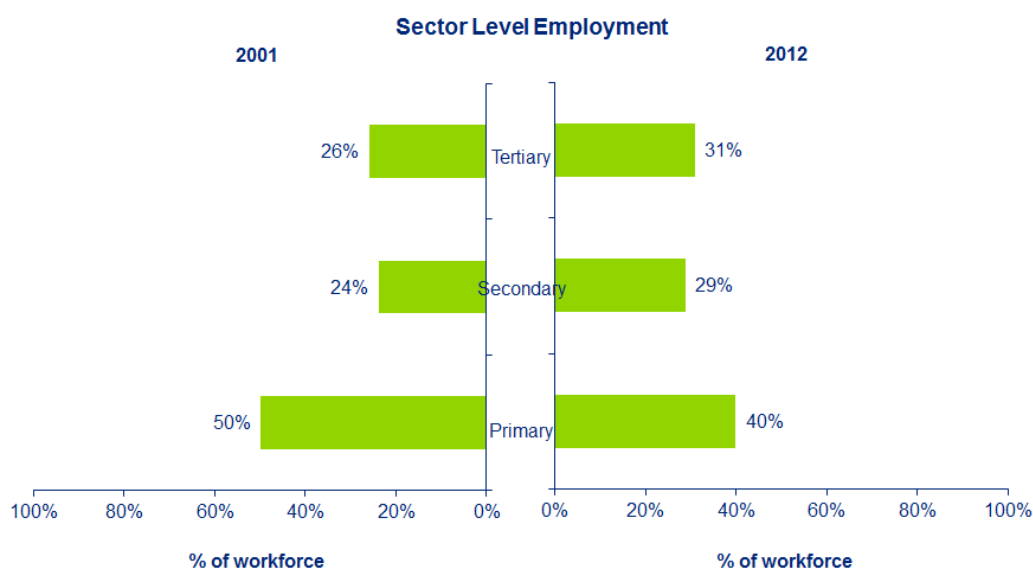
The primary sector will continue to employ majority of the workforce but the contribution of primary sector to total employment is expected to decrease on account of increasing opportunities in secondary and tertiary sector in the district.

²²⁶ Census of India, 2011

²²⁷ Census of 2001

²²⁸ Deloitte Analysis

Figure 4.88– Sector level employment in East Singhbhum



4.10.5. Skill Gap Assessment

Manpower Supply

The population of East Singhbhum was about 22.91 lakhs in 2011 which is expected to increase to about 24.98 lakhs in 2017 and about 26.85 lakh in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.96 lakhs during 2012-22.

Table 4.95– Estimated workforce of East Singhbhum

Estimated Work Force			
	2011	2017	2022
Population	22,91,032	24,98,320	26,85,316
Working age population	15,33,336	16,96,934	18,50,674
Available Labour Force	9,48,542	10,49,746	11,44,852
Incremental manpower supply (2012-22)	196310		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled categories based on education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.96– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2018-22	Total
Skilled	16440	15836	32276
Semi-Skilled	33597	27528	61124
Minimally skilled	51167	51743	102910

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand is about 4.81 lakhs including 3.40 lakhs in organized sectors and 1.41 lakhs in unorganized sector.

Table 4.97– Incremental manpower demand in East Singhbhum in organized sectors

Incremental Demand – Organized sectors	2012-17			2018-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ²²⁹	-	25	219	-	18	160
Mining and Quarrying	11	21	75	-	15	53
Total (I)	11	47	294	-	33	213
Secondary Sector						
Auto & Auto Components	3009	3868	1719	2568	3302	1467
Textiles & garments	28	56	477	24	48	407
Leather & Leather Goods	10	10	188	9	9	161
Chemicals & pharmaceuticals	688	1146	458	587	978	391
Food processing/ Cold Chain/ Refrigeration	976	2929	15623	833	2500	13334
Wood & wood based furniture	84	84	1519	72	72	1296
Building & construction	4023	10057	26147	3407	8517	22145
Fabricated Metal Products	1288	3865	1288	1100	3299	1100
Engineering Products	688	2063	688	587	1761	587
Electricity, Gas and Water Supply	36	50	57	26	37	42
Other Manufacturing	489	815	1955	417	695	1668
Total (II)	11319	24945	50121	9630	21219	42600
Tertiary Sector						
IT/ ITES-BPO services	200	92	15	432	199	33
Tourism Hospitality and Travel Trade	14607	14607	7304	11779	11779	5889
Transportation & Logistics/ warehousing/ packaging	665	1330	4655	541	1082	3785
Organized Retail	13	28	10	38	84	30
Real Estate Services	6462	6462	12924	8223	8223	16446
Media & Entertainment	3521	3169	352	3263	2936	326
Healthcare Services	339	2062	0	31	219	0
Banking Insurance & Finance	6051	712	356	6755	795	397
Education/ Skill Development Services	4375	1401	0	3914	435	0
Total (III)	36233	29863	25615	34974	25751	26907
Grand Total (I+II+III)	47571	54854	76031	44618	47003	69721
Total Incremental Demand	3.39.797					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 1.41 lakh in the next 10 years.

Table 4.98– Incremental manpower demand in East Singhbhum in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2018-22
Agriculture & allied activities	22,448	16,415
Drivers	9451	11498
Domestic help	2153	1943
Others	1228	1108
Total	32795	42157

²²⁹ Employment in organized agriculture activities

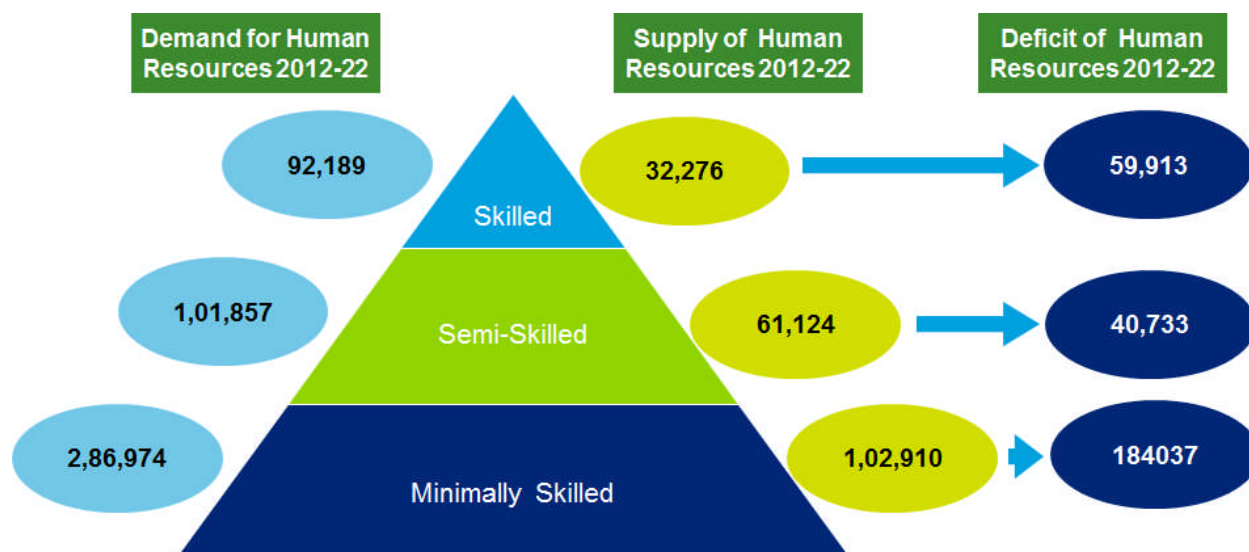
“ – “ Negligible Demand – Totals may not match due to rounding offs

Total Incremental Demand – Unorganized Sectors	1,41,196
--	----------

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be about 2.85 lakhs²³⁰, indicating an excess of demand.

Figure 4.89– Incremental manpower gap in East Singhbhum



Qualitative Skill Gaps

Table 4.99– Qualitative skill gaps in high demand sectors in East Singhbhum

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills

²³⁰ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

	Quality Controller	- Inadequate knowledge of sampling techniques
Automobile/ Engineering Units/ Non- metallic mineral products	Supervisor	- Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	- Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	- Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Tourism, hospitality & travel	Hotel Manager	- Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	- Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	- Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	- Inadequate curtsy level - Lack of discipline - Insufficient communication skills

4.10.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the PSEs or Indian Railways or work with the Tata Group Companies in the district
- Youth also aspire to learn technical skills to get better jobs, however they highlighted lack of quality faculty & instructors and old & outdated machinery in the workshop as major barriers in skill development in the institutes. Also, lack of soft skills training has also been identified as a hindrance for many students to get jobs in the open market
- The youth in the district do not want to work in the ancillaries, they do not provide future growth opportunities

Youth in East Singhbhum aspire to work with the Tata Group companies in the District

Source: Focus Group Discussion, East Singhbhum

4.10.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Auto & Auto Components (iii) Iron & Steel/ Engineering Goods (iv) Food Processing
- Priority industries for skill development in tertiary sector are (i) Travel Trade (ii) Real Estate Services (iii) Banking Insurance & Finance

Considering economic and skill landscape of East Singhbhum, the proposed action plan would consist of the following priority areas:

Table 4.100– Recommendations and action points for East Singhbhum

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Auto-Auto Components - Building and Construction - Food Processing - Engineering Goods - Travel Trade - Banking and Insurance - Real Estate Services
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Auto-Auto Components - Engineering Goods • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Organised retail - Banking, insurance & finance - Tourism, hospitality & travel • Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes • Engage with industry players like Tata Group Companies and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income • Focus on supporting creation of micro-enterprises/ ancillaries for minerals sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms

4.11 Dhanbad

Dhanbad is one of the leading industrially developed district of Jharkhand state. It is also known as the 'Coal Capital' of India. Dhanbad District is surrounded by Giridih and Jamtara in the north, by Burdwan (West Bengal) in the east, by Purulia (West Bengal) in the south and by Bokaro in the west. The district is spread over 204.16 thousand hectares which constitutes about 3% of total geographical area of Jharkhand. For administrative purpose the district has been divided into 08 Blocks / Tehsils. Dhanbad town is the Division headquarter of the district.

4.11.1. Demography

Dhanbad has a population of 26.82 lakhs as of 2011 of which about 58.13% reside in urban areas²³¹. The urban population of Dhanbad is much higher in comparison to the state average. The district is densely populated with 1284 persons per sq. km. in comparison to the state average of 414²³². The district has a lower sex ratio than the state.

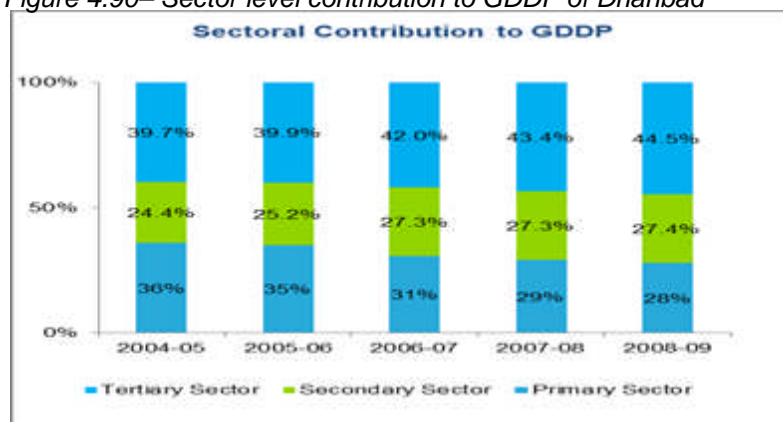
Table 4.101– Demography of Dhanbad

Demography	Dhanbad	Jharkhand
Population (2011)	26,82,662	3,29,66,238
Decadal Population Growth Rate (2001-11)	11.91%	22.34%
Population density per sq. km (2011)	1284	414
Sex Ratio (2011)	908	947
Percentage of Urban Population (2011)	58.13%	24%
Percentage of SC Population (2001)	15.9%	11.8%
Percentage of SC Population (2001)	8.4%	26.3%

4.11.2. Economic Profile

Gross District Domestic Product (GDDP) of Dhanbad has grown at a lower growth rate (CAGR) of 6.30% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period²³³. Tertiary sector contributes about 44.5% of the GDDP primarily on account of contribution coming from Trade, hotels and restaurants sector.

Figure 4.90– Sector level contribution to GDDP of Dhanbad



Source: Directorate of Economics & Statistics, Jharkhand

²³¹ Census of India, 2011

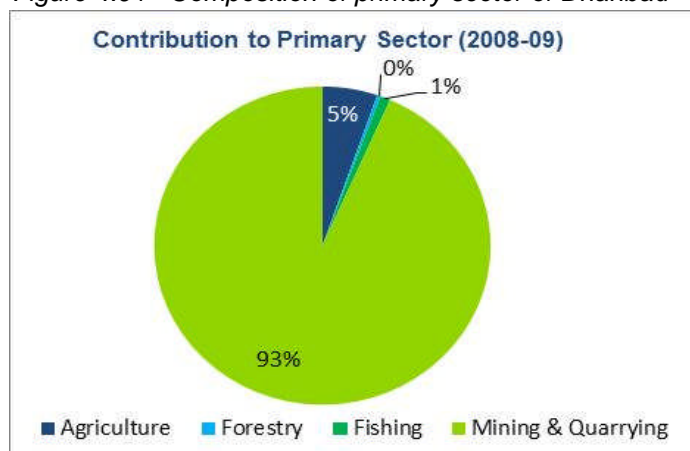
²³² Census of India, 2011

²³³ Directorate of Economics and Statistics, Jharkhand

Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 28% to the GDDP in 2008-09²³⁴. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account increasing contribution of secondary & tertiary sectors.

Figure 4.91– Composition of primary sector of Dhanbad



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Mining & Quarrying is the main activity of the district contributing approximately 93% to the GDDP of primary sector
- Companies such as Coal India Limited, Bharat Coking Coal limited and TISCO have their own coal mines in the district
- Production of coal during 2010-2011 was about 319.44 lakh tonnes

Source: District Industrial Profile- Dhanbad, MSME

The net sown area in the district is about 34.83 thousand hectares²³⁵. Only 5% of the net cropped area is irrigated in the district and the cropping intensity is 113 %²³⁶.

The main primary activity of the district is Mining and quarrying. The district is rich in coal, stone, quartz and bricks. Dhanbad has approximately 112 mines²³⁷. Tata Steel, BCCL, ECL and IISCO (Indian Iron And Steel Company) are some of the companies that have their own mines in the district.

Dhanbad is the only district in the state where the number of persons engaged in non-agricultural activities out numbers the number of persons engaged in agricultural. Mining and allied activities engage about 25-30% of the total workers in the district²³⁸. Agriculture in the district is mainly rain fed and comprises mono-cropping.

Secondary sector

The contribution of secondary sector to district GDP in 2008-09 was about 27.4%²³⁹. The sector has registered a CAGR of 9.09% between 2004-05 and 2008-09 primarily on account of growth in manufacturing and construction activities. Manufacturing activities contributed about 52% of the contribution of the secondary sector to the GDDP.²⁴⁰

Manufacturing is the highest contributor to the secondary sector in Dhanbad. The district is one of the most industrialized areas in Jharkhand due to abundance of coal. It has a number of large and medium sized companies in areas of mining of coal, power and steel, non-metallic mineral products, coal products like coke etc.

²³⁴ Directorate of Economics and Statistics, Jharkhand

²³⁵ District Agriculture Plan- Dhanbad, NABARD Consultancy Services

²³⁶ District Agriculture Plan- Dhanbad, NABARD Consultancy Services

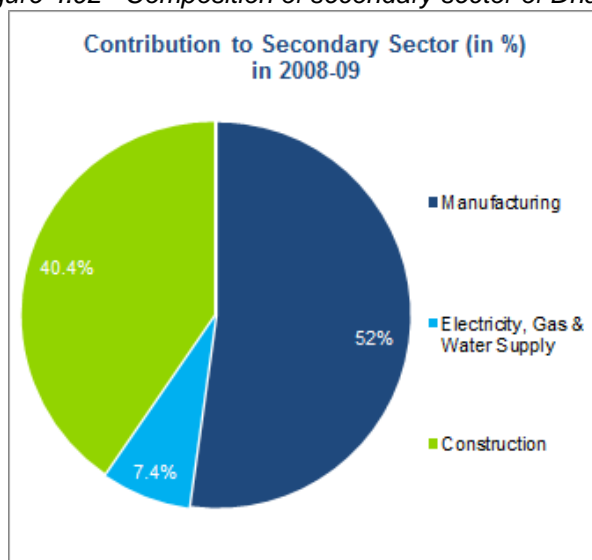
²³⁷ Mine list, dhanbad.nic.in

²³⁸ Dhanbad.nic.in

²³⁹ Directorate of Economics and Statistics, Jharkhand

²⁴⁰ Directorate of Economics and Statistics, Jharkhand

Figure 4.92– Composition of secondary sector of Dhanbad



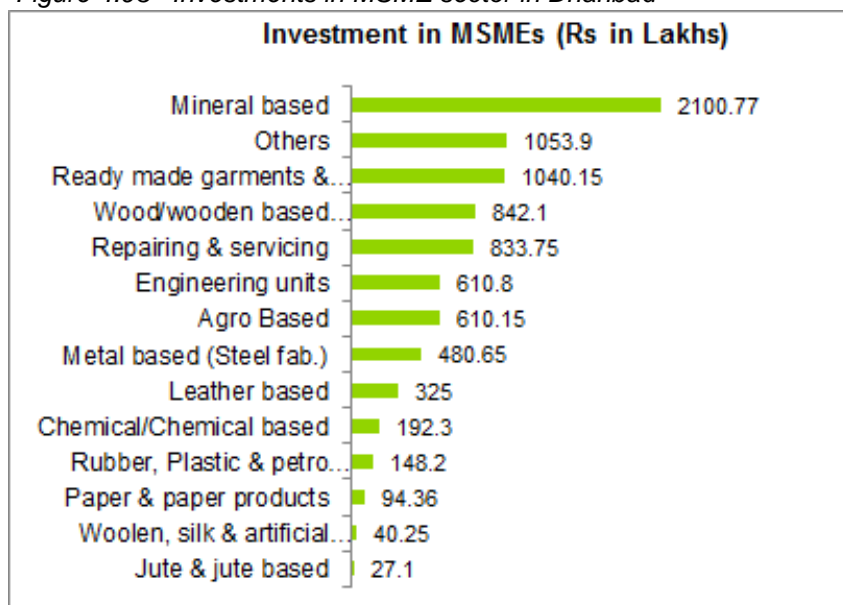
Source: Directorate of Economics & Statistics, Jharkhand

Coal washing and coke making are the main mining related industries in the city. The major companies in the district are IISCO (now owned by SAIL), Bharat Coking Coal Limited and Eastern Coalfields Limited are subsidiaries of Coal India Limited (CIL). IISCO and Coal India Limited are the largest operators of coal mines in Dhanbad, and have open cast mines as well as underground mines. Tata Steel also has underground coal mines in the district. The district also houses a number of coal washeries.

The district also has a number of power generation plants. Hydro Power is being generated at Maithon and Panchet. Tata Power and Damodar Valley Corporation (DVC) are setting up a 1050 MW thermal power plant at Maithon. This project is already in operation with one unit running successfully. ONGC is using CBM (Coal bedded methane) for power generation at some of the coal mines.

Construction activities contribute approximately 40% to the GDDP of secondary sector. Dhanbad has witnessed increase in construction activities on account of rapid industrialisation & urbanization.

Figure 4.93– Investments in MSME sector in Dhanbad

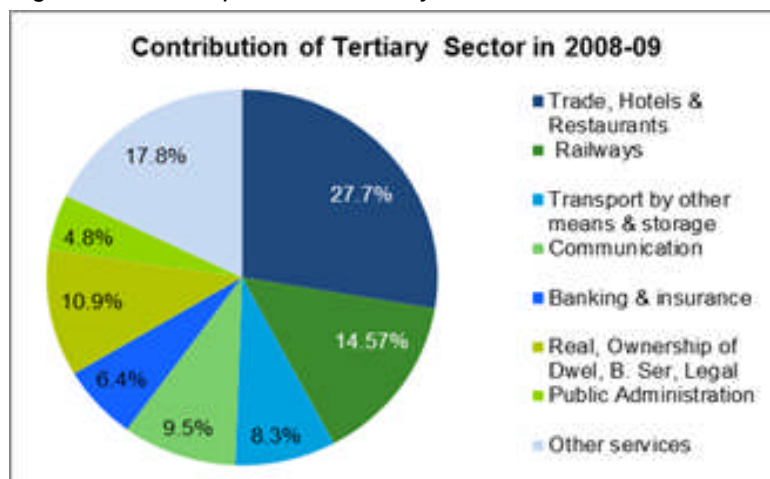


Source: District Industrial Profile, DC-MSME

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 44.5% in 2008-09²⁴¹. The sector has registered a CAGR of 8.99% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; Railways and Real Estate.

Figure 4.94– Composition of tertiary sector of Dhanbad



Source: Directorate of Economics & Statistics, Jharkhand

The major contributors to the sector Trade, hotel and restaurants; Railways and Real Estate have grown by CAGR 5.47%, 11.49% and 9.73% in the period between 2004-05 and 2008-09 respectively. Railways contributed about 14.57% of GDDP in 2008-09. Coal and other minerals are being transported within the state and other parts of the country.

Education is one of the growing sectors in Dhanbad. A variety of industries and increasing urbanisation has made Dhanbad a major hub for education in Jharkhand. The district boasts of medical and technology institutions which has generated employment opportunities in education and skill development services.

Future Growth Opportunities in Dhanbad

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential.

Table 4.102– Focus sectors and growth opportunities in Dhanbad

Sector/ Industry	Growth Opportunities
Mineral based	Mining and Quarrying is the highest contributor to the primary sector and is expected to continue to create opportunities for mineral based industries such as Coal mining, coal washing, and coke making etc.
Repairing & servicing	As a result of presence of large number of mines, repairing and servicing of mine equipment has huge employment opportunities in the district.
Building Construction &	Expansions and investments in the manufacturing sector is likely to fuel infrastructure development leading to an increase in construction activities
Real Estate Services	Growth in construction activities is expected to have a positive effect on the demand of Real Estate services

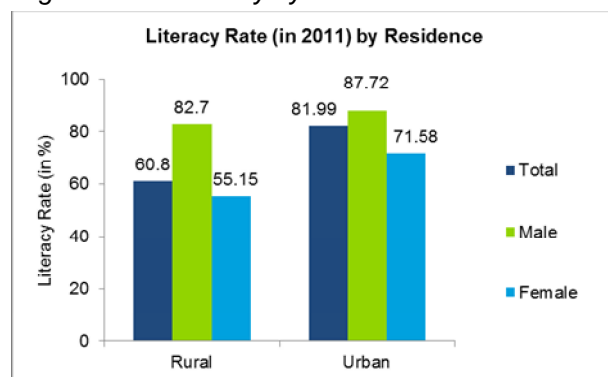
²⁴¹ Directorate of Economics and Statistics, Jharkhand

Sector/ Industry	Growth Opportunities
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

4.11.3. Education

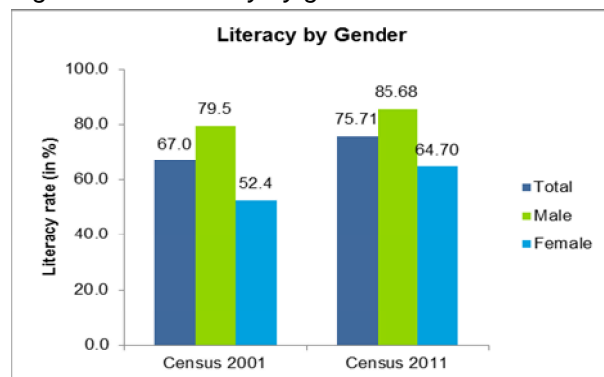
Dhanbad has a higher literacy rate of 75.71% in comparison to state average of 67.63%²⁴². It marks significant improvement over literacy rate of 67.0% 2001²⁴³. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

Figure 4.95– Literacy by residence in Dhanbad



Source: Census 2011

Figure 4.96– Literacy by gender in Dhanbad



Source: Census 2001, Census 2011

Dhanbad has 2025 schools with enrolment of about 3.77 lakhs²⁴⁴ in primary and upper primary. Enrolment in Government schools account for 85.98% of total enrolment. Dhanbad has 211 secondary and higher secondary schools with enrolment of about 1.61 lakhs only.

Dhanbad is a hub for education in Jharkhand. It has the presence of many institutes offering AICTE accredited programs in the field of engineering/ technology as highlighted in the table below. In terms of vocational training infrastructure, Dhanbad has one Government Industrial Training Institute and twenty two private Industrial Training Centres. Major trades offered in the Government ITI are Draftsman mechanic, fitter, surveyor, turner, machinist, machinist grinder, electrician, wiremen, draftsman civil, electroplater, mechanic motor vehicle, Instrument mechanic, mechanic radio and T.V, mechanic general electronics, refrigeration & air-conditioning, Information technology, Mechanic industrial electronics, sheet metal worker, welder etc. The district has a number of private vocational training providers such as NIIT.

Table 4.103– Educational infrastructure in Dhanbad

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
Programs: Engineering/ Technology	3	1800	AICTE list of accredited institutes
B.Ed.	9	950	National Council for Teacher Education
ITIs – Government	1	1345	Ministry of Labour, Jharkhand
ITCs – Private	22	10538	Ministry of Labour, Jharkhand
Government Polytechnics	3	730	Department of Science and Technology, Jharkhand
Private Polytechnics	1	450	AICTE list of accredited institutes

²⁴² Census of India, 2011

²⁴³ Census of India, 2001

²⁴⁴ DISE, 2010-11

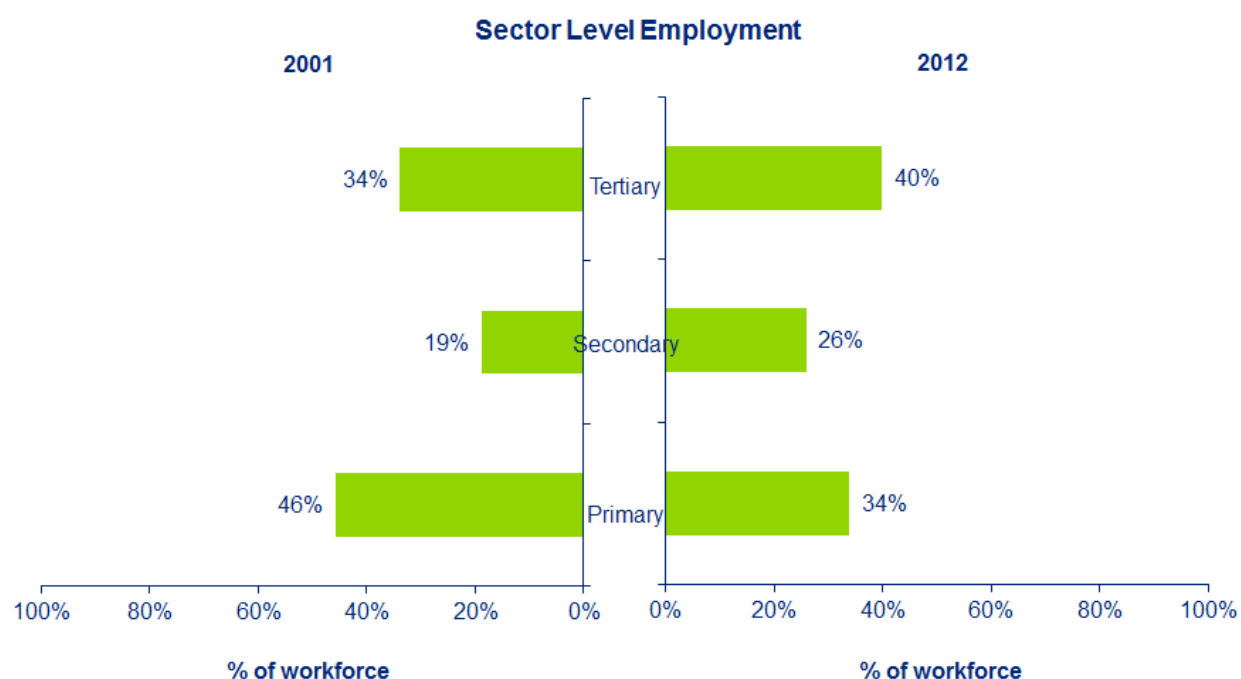
4.11.4. Employment Profile

The work participation rate of Dhanbad was 27.7% which is lower than the state average of 37.5%²⁴⁵. As per Deloitte analysis, total workforce of Dhanbad is expected to be 9.26 lakhs in 2012.

Table 4.104– Employment profile in Dhanbad

Employment Profile (In Lakhs)	2001 ²⁴⁶	2012 ²⁴⁷
Total Population	23.97	27.13
Working Age Population	13.81	17.94
Labour Force	8.08	9.71
Workforce	6.22	9.26

Figure 4.97– Sector level employment in Dhanbad



²⁴⁵ Census of India, 2011

²⁴⁶ Census of 2001

²⁴⁷ Deloitte Analysis

4.11.5. Skill Gap Assessment

Manpower Supply

The population of Dhanbad was about 26.83 lakhs in 2011 which is expected to increase to about 28.70 lakh in 2017 and about 30.36 lakh in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.92 lakhs during 2012-22.

Table 4.105– Estimated workforce of Dhanbad

Estimated Work Force			
	2011	2017	2022
Population	26,82,662	28,70,036	30,36,140
Working age population	17,73,594	19,52,866	21,24,488
Available Labour Force	9,71,097	10,69,254	11,63,223
Incremental manpower supply (2012-22)	1,92,126		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled categories based on education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.106– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2018-22	Total
Skilled	6661	5765	12426
Semi-Skilled	57496	49363	104859
Minimally skilled	34000	40841	74841

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand is about 5.69 lakh including 4.65 lakh in organized sectors and 1.04 lakhs in unorganized sector.

Table 4.107– Incremental manpower demand in Dhanbad in organized sectors

Incremental Demand – Organized sectors	2012-17			2018-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ²⁴⁸	-	12	101	-	-	74
Mining and Quarrying	1298	2596	9087	976	1953	6834
Total (I)	1298	2608	9188	976	1953	6908
Secondary Sector						
Leather/ Leather Goods	26	26	467	25	25	454
Textiles & garments	383	765	6504	372	745	6330
Chemicals & pharmaceuticals	157	262	105	153	255	102
Food processing/ Cold Chain/ Refrigeration	517	1550	8265	503	1508	8044
Building & construction	6939	17347	45101	6338	15845	41196
Wood & wood based furniture	68	68	1220	66	66	1187
Coke Oven/ Mineral based products	2582	7745	2582	2513	7538	2513
Engineering Products	1432	4295	1432	1393	4180	1393
Electricity, Gas and Water Supply	82	115	132	60	84	96
Other Manufacturing	406	677	1625	395	659	1581
Total (II)	12590	32849	67430	11819	30905	62896
Tertiary Sector						
IT/ ITES-BPO services	132	61	10	261	121	20
Tourism Hospitality and Travel Trade	25232	25232	12616	21661	21661	10831
Transportation & Logistics/ warehousing/ packaging	1172	2344	8205	957	1914	6698
Organized Retail	22	49	18	70	154	56
Real Estate Services	5073	5073	10146	6473	6473	12946
Media & Entertainment	2822	2540	282	2540	2286	254
Healthcare Services	379	2803	0	27	195	0
Banking Insurance & Finance	7304	859	430	9157	1077	539
Education/ Skill Development Services	1300	1478	0	577	754	0
Total (III)	43437	40439	31707	41724	34635	31343
Grand Total (I+II+III)	57329	75896	108324	54522	67500	101147
Total Incremental Demand	464719					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 1.04 lakh in the next 10 years.

²⁴⁸ Employment in organized agriculture activities

“ – “ Negligible Demand – Totals may not match due to rounding offs

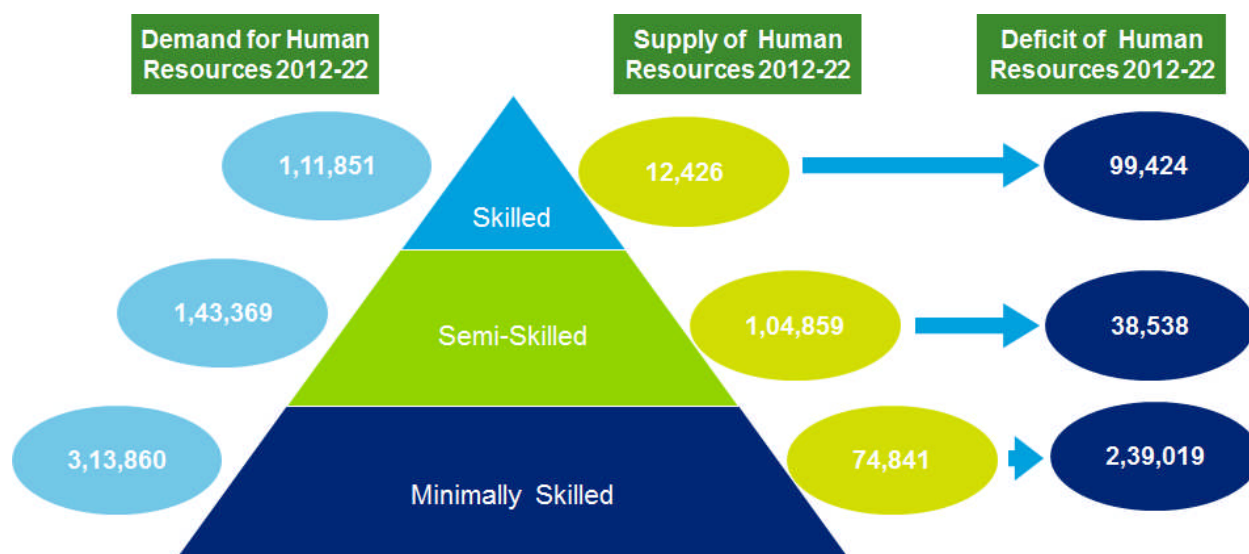
Table 4.108– Incremental manpower demand in Dhanbad in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2018-22
Agriculture & allied activities	10319	7546
Drivers	9692	11059
Domestic help	1767	1566
Security Guards	1007	893
Others	27705	32834
Total	50490	32834
Total Incremental Demand – Unorganized Sectors	104388	

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be about 3.77 lakhs²⁴⁹, indicating an excess of demand.

Figure 4.98– Incremental manpower gap in Dhanbad



Qualitative Skill Gaps

Table 4.109– Qualitative skill gaps in high demand sectors in Dhanbad

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects

²⁴⁹The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
		- Lack of coordination skills
	Workmen	- Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Real Estate Services	Project Planner	- Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	- Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	- Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills
Mineral based and Engineering Units	Supervisor	- Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	- Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	- Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Food Processing	Procurement Executive	- Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	- Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	- Inadequate knowledge of sampling techniques

4.11.6. Youth Aspirations

The youth in Dhanbad aspire to:

- Acquire technical skill and become employable in the market
- To get employed in the government sector
- Some of the students aspire to acquire managerial and financial skills to be start their own business
- Some of the students also aspire to go for higher studies.

Youth in Dhanbad aspire to get job opportunities in the Government sectors preferably with the PSEs or Indian Railways.

Source: Focus Group Discussion, Dhanbad

4.11.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Food Processing & (iii) Coke/ mineral based products & engineering products (iv) Transportation and Logistics
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Real Estate Services (iii) Banking Insurance & Finance

Considering economic and skill landscape of Dhanbad, the proposed action plan would consist of the following priority areas:

Table 4.110– Recommendations and action points for Dhanbad

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate services - Coke/ mineral based & engineering products - Food Processing - Transportation and Logistics - Banking, insurance & finance - Tourism, hospitality & travel
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Coke/ mineral based & engineering products - Food Processing • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Organised retail - Banking, insurance & finance - Tourism, hospitality & travel - Transportation & logistics - Drivers • Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for coal & steel industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes • Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on supporting creation of micro-enterprises/ ancillaries for minerals sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate

Stakeholder	Action points
	<p>access to modern workshops/ tool rooms</p> <ul style="list-style-type: none"> • Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Coke/ mineral and engineering products - Food Processing

4.12 Chatra

Chatra district is located in the Hazaribag plateau. It is bounded by the district of Gaya of Bihar state in the north, Palamu district in the west, Latehar in the South and Koderma and Hazaribag district in the East. The district is spread over 375.52 thousand hectares which constitutes about 5% of total geographical area of Jharkhand. Administratively the district comprises one subdivision and 10 development blocks i.e. Chatra, Simaria, Patrappur, Huntergunj, Itkhori, Tandwa, Kunda, Lawalong, Giddhor and Pratapgarha. The district headquarters are in Chatra.

4.12.1. Demography

Chatra has a population of 10.42 lakhs as of 2011 of which about 6% reside in urban areas²⁵⁰. The urban population of Chatra is much lower in comparison to the state average. The district is sparsely populated with 275 persons per sq. km. in comparison to the state average of 414²⁵¹. The district has a higher sex ratio than the state.

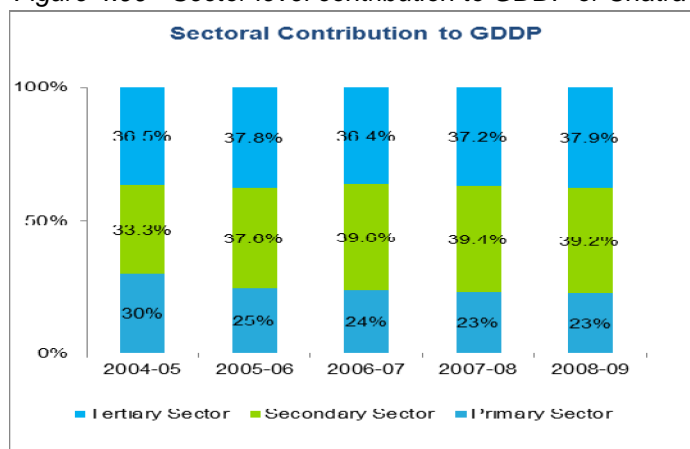
Table 4.111– Demography of Chatra

Demography	Chatra	Jharkhand
Population (2011)	10,42,304	3,29,66,238
Decadal Population Growth Rate (2001-11)	28.98%	22.34%
Population density per sq. km (2011)	275	414
Sex Ratio (2011)	951	947
Percentage of Urban Population (2011)	6%	24%
Percentage of Scheduled Caste Population	31.9%	11.8%
Percentage of Scheduled Tribe Population	3.8%	26.3%

4.12.2. Economic Profile

Gross District Domestic Product (GDDP) of Chatra has grown at a lower growth rate (CAGR) of 6.30% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period²⁵². Secondary sector contributes about 39.2% of the GDDP primarily on account of contribution coming from manufacturing sector.

Figure 4.99– Sector level contribution to GDDP of Chatra



Source: Directorate of Economics & Statistics, Jharkhand

²⁵⁰ Census of India, 2011

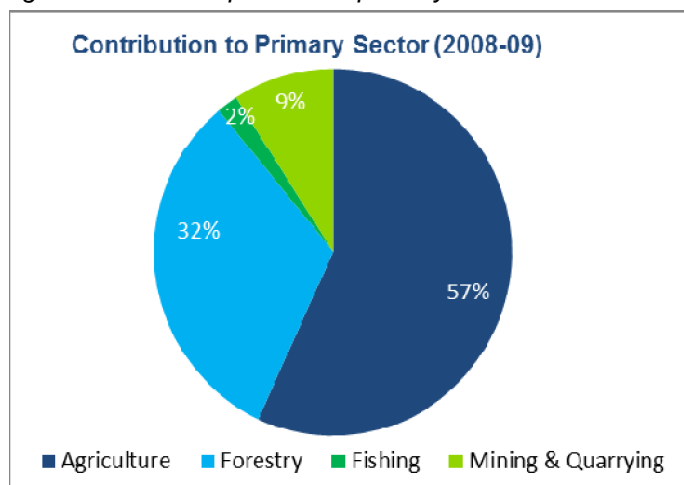
²⁵¹ Census of India, 2011

²⁵² Directorate of Economics and Statistics, Jharkhand

Primary sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 23% to the GDDP in 2008-09²⁵³. The percentage contribution of primary sector to the GDDP has seen a decline in the last few years primarily on account decreasing contribution of agriculture and increasing contribution of secondary & tertiary sectors.

Figure 4.100– Composition of primary sector of Chatra



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- Agro-climatic conditions favour cultivation of fruit crops like mango, guava, jackfruit, custard apple & sweet lime
- Poultry farming (broiler) is one of the main allied activities practiced in the district.
- A variety of medicinal plants, kendu leaves, bamboo, sal, teak and other timber species are found in the district.

Source: District Agriculture Plan-Chatra, NABARD Consultancy Services

The net sown area in Chatra is about 45790 hectares²⁵⁴ out of which 20.48 % is irrigated. The cropping intensity in the district is 119 %²⁵⁵.

The two main economic activities of Chatra district are agriculture and forestry. Paddy and Maize are the two main crops grown in the district. The other major crops are pulse, oilseeds, wheat, potato, tomato and other vegetables. A major portion of the district is covered by forest (60.4 % of Total Geographical Area). The forest is full of variety of medicinal plants, kendu leaves, bamboo, sal, teak and other timber species. They also provide basic raw material to a number of important industries, namely furniture, match box, paper, rayon construction, railway slippers, wooden poles, etc.

Coal, Sand, Graphite and Stones are main mineral products of Chatra district. The Coal is available in Keradari and Tandwa Block area, with Central Coal Fields Limited engaged in mining of Coal in the district.

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 39.2%²⁵⁶. The sector has registered a CAGR of 10.77% between 2004-05 and 2008-09 primarily on account of growth in manufacturing activities. Manufacturing activities contributed about 85% of the contribution of the secondary sector to the GDDP.²⁵⁷

²⁵³ Directorate of Economics and Statistics, Jharkhand

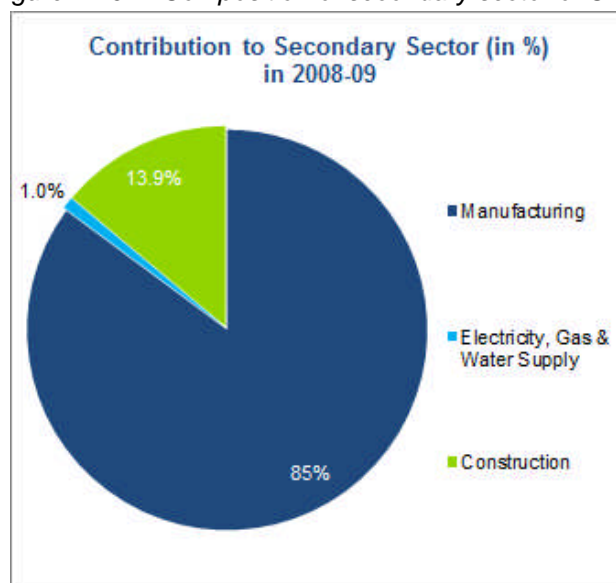
²⁵⁴ District Agriculture Plan- Chatra, NABARD Consultancy Services

²⁵⁵ District Agriculture Plan- Chatra, NABARD Consultancy Services

²⁵⁶ Directorate of Economics and Statistics, Jharkhand

²⁵⁷ Directorate of Economics and Statistics, Jharkhand

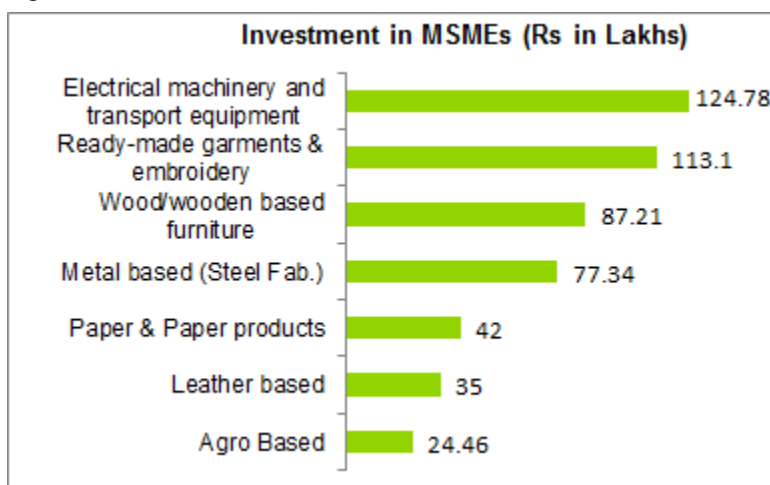
Figure 4.101– Composition of secondary sector of Chatra



Source: Directorate of Economics & Statistics, Jharkhand

The secondary sector in Chatra has high presence of fabricated/structural metal product industries and engineering products like tanks, reservoirs and steam generators. The two industries together, account for 50% of the district's industrial output²⁵⁸.

Figure 4.102– Investments in MSME sector in Chatra



Source: District Industrial Profile, DC-MSME

Tertiary Sector

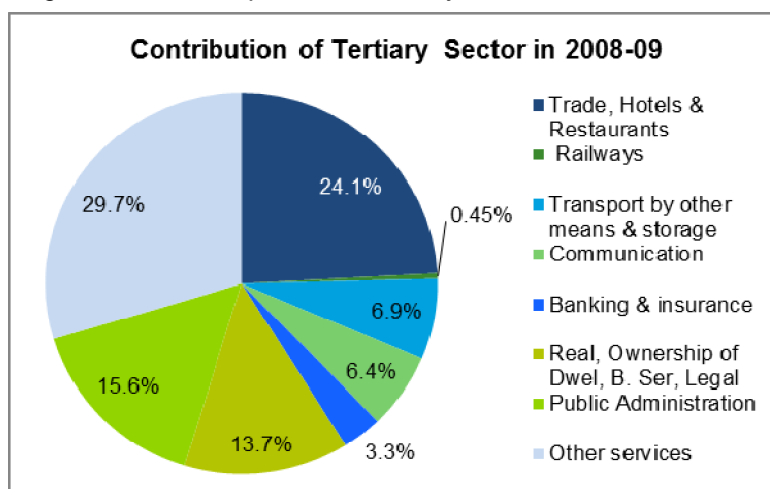
The contribution of the tertiary sector to GDDP was about 37.9% in 2008-09²⁵⁹. The sector has registered a CAGR of 7.26% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; Real Estate and Public Administration.

The major contributors to the sector Trade, hotel and restaurants; Real Estate and Public Administration have grown by CAGR 5.47%, 9.74% and 1.03% in the period between 2004-05 and 2008-09 respectively.

²⁵⁸ Jharkhand Development Report 2012

²⁵⁹ Directorate of Economics and Statistics, Jharkhand

Figure 4.103– Composition of tertiary sector of Chatra



Source: Directorate of Economics & Statistics, Jharkhand

Chatra is regarded as the gateway of Jharkhand particularly of Chotanagpur plateau region. It has a glorious past with an eminent historical heritage. It is located on the Chatra-Chauparan road and has some Buddhist relics. It also has an ancient Bhadrakali temple on the bank of river Mahanad.

The dense forest cover in the district also holds potential for eco-tourism. The district has good road and rail connectivity that provides for trade opportunities for agro-based, agroforestry based and other small/cottage & large scale industries in the district.

Future Growth Opportunities in Chatra As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.112– Focus sectors and growth opportunities in Chatra

Sector/ Industry	Growth Opportunities
Agriculture and Allied Activities	<ul style="list-style-type: none"> Horticulture & Plantation Agroforestry Dairy Farming Poultry
Food Processing	Agro food processing
Structural/ Engineering Products	Structural and Engineering Products have witnessed maximum investment in the district. Increasing industrialisation of the area is expected to create further employment opportunities
Eco Tourism	With huge forest cover the district presents good opportunities for eco-tourism

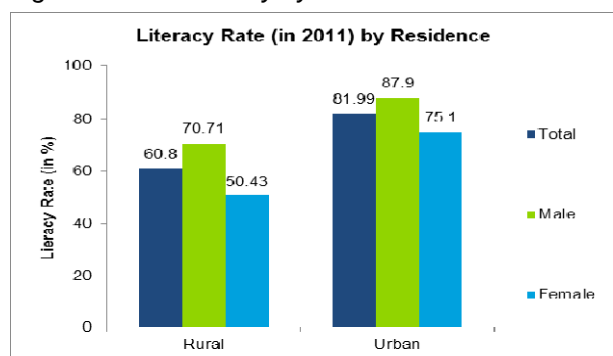
4.12.3. Education

Chatra has a lower literacy rate of 62.14% in comparison to state average of 67.63%²⁶⁰. It marks significant improvement over literacy rate of 43.2% 2001²⁶¹. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy as shown in graph below.

²⁶⁰ Census of India, 2011

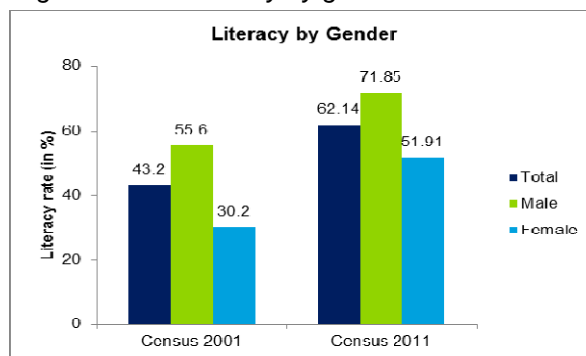
²⁶¹ Census of India, 2001

Figure 4.104– Literacy by residence in Chatra



Source: Census 2011

Figure 4.105– Literacy by gender in Chatra



Source: Census 2001, Census 2011

Chatra has 1957 schools with enrolment of about 2.63 lakhs²⁶² in primary and upper primary. Enrolment in Government schools account for 97.03% of total enrolment. Only 58.7% of the students attend upper primary schools after primary education. On the other hand, Chatra has 109 secondary and higher secondary schools with enrolment of about 0.40 lakhs only.

Chatra has no institute offering AICTE accredited programs in the field of engineering/ technology, management and computer application as highlighted in the table below. In terms of vocational training infrastructure, Chatra has one Government Industrial Training Institute and one private Industrial Training Centre. Major trades offered in the Government ITI are Mechanic General Electronics, fitter, electrician, wiremen, Mechanic Motor vehicle, Tractor Mechanic, Hair & Skin care and Information technology. Chatra lacks Government polytechnic or any similar private institutions. The district has very limited number of private vocational training providers.

Table 4.113– Educational infrastructure in Chatra

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
B.Ed.	2	200	National Council for Teacher Education
ITIs – Government	1	389	Ministry of Labour, Jharkhand
ITCs – Private	1	168	Ministry of Labour, Jharkhand

4.12.4. Employment Profile

The work participation rate of Chatra was 37.8% which is slightly higher than the state average of 37.5%²⁶³. Total workforce is expected to increase to 4.30 lakhs in 2012.

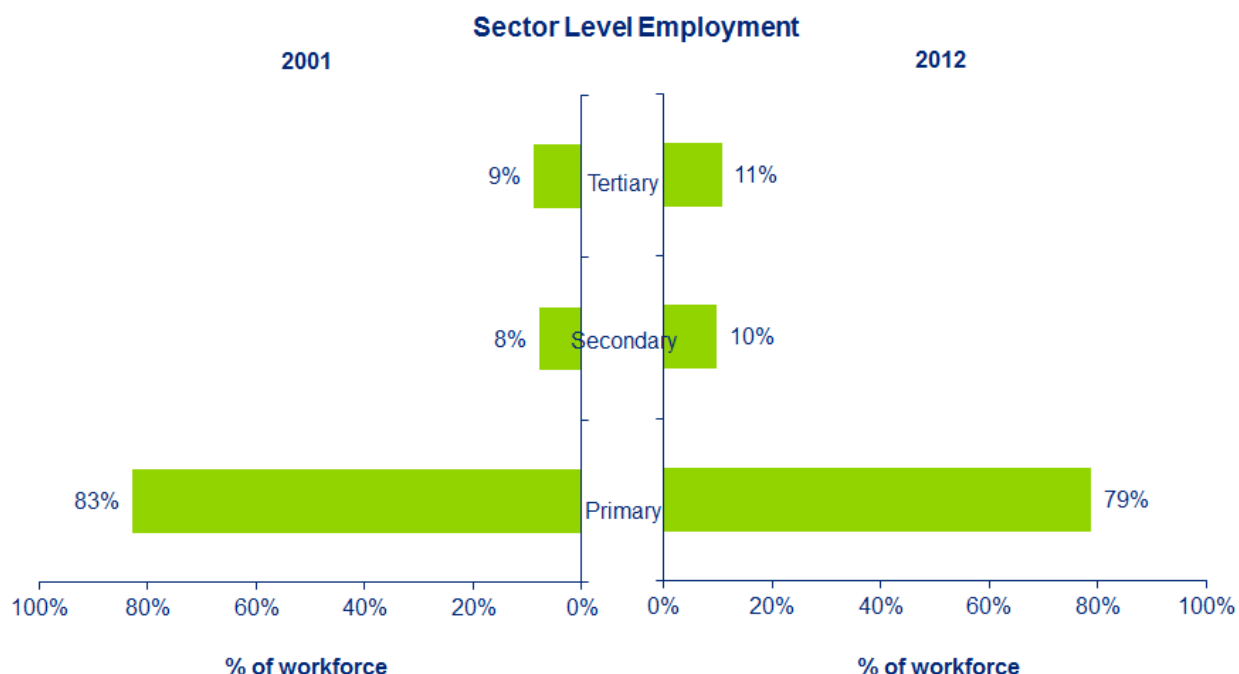
Table 4.114– Employment profile in Chatra

Employment Profile (In Lakhs)	2001 ²⁶⁴	2012 ²⁶⁵
Total Population	7.91	10.69
Working Age Population	3.94	6.18
Labour Force	3.18	4.42
Workforce	3.02	4.30

²⁶² DISE, 2010-11²⁶³ Census of India, 2011²⁶⁴ Census of 2001²⁶⁵ Deloitte Analysis

About 83% of the workers in Chatra district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 79% in 2012 on account of increase in opportunities in secondary and tertiary sectors²⁶⁶

Figure 4.106– Sector level employment in Chatra



4.12.5. Skill Gap Assessment

Manpower Supply

The population of Chatra was about 10.42 lakhs in 2011 which is expected to increase to about 12.14 lakh in 2017 and about 13.79 lakh in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.88 lakhs during 2012-22.

Table 4.115– Estimated workforce of Chatra

Estimated Work Force			
	2011	2017	2022
Population	10,42,304	12,14,249	13,79,015
Working age population	6,02,512	7,32,045	8,65,607
Available Labour Force	4,31,214	5,23,920	6,19,509
Projected Work Force	4,18,870	4,87,383	5,43,130
Incremental manpower supply (2012-22)	1,88,295		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled categories based on education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

²⁶⁶ Deloitte Analysis

Table 4.116– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2018-22	Total
Skilled	1943	2142	4085
Semi-Skilled	2262	1671	3933
Minimally skilled	88501	91776	180277

Manpower Demand

As per the methodology highlighted in section 2, the estimated incremental manpower demand is about 1.24 lakh including 0.43 lakh in organized sectors and 0.81 lakhs in unorganized sector.

Table 4.117– Incremental manpower demand in Chatra in organized sectors

Incremental Demand – Organized sectors		2012-17			2018-2022	
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ²⁶⁷	14	46	399	11	35	307
Mining and Quarrying	11	23	80	-	17	59
Total (I)	25	69	479	11	52	366
Secondary Sector						
Textiles & garments	53	106	903	45	91	770
Leather & Leather Goods	-	-	153	-	-	130
Chemicals & pharmaceuticals	213	355	142	182	303	121
Food processing/ Cold Chain/ Refrigeration	186	558	2974	159	476	2538
Wood & wood based furniture	16	16	285	14	14	243
Building & construction	380	950	2469	322	804	2091
Structural Metal Products	244	732	244	208	624	208
Mineral Products	136	407	136	116	348	116
Other Manufacturing	79	132	317	68	113	271
Total (II)	1316	3266	7624	1121	2781	6491
Tertiary Sector						
Tourism Hospitality and Travel Trade	2099	2099	1050	1693	1693	846
Transportation & Logistics/ warehousing/ packaging	32	65	227	25	50	176
Real Estate Services	486	486	973	514	514	1027
Media & Entertainment	153	138	15	127	114	13
Healthcare Services	144	977	0	27	193	0
Banking Insurance & Finance	164	19	10	147	17	-
Education/ Skill Development Services	941	1070	0	1182	278	0
Total (III)	4021	4855	2274	3715	2859	2071
Grand Total (I+II+III)	5362	8189	10377	4855	5692	8928
Total Incremental Demand	43403					

²⁶⁷ Employment in organized agriculture activities

“ – “ Negligible Demand – Totals may not match due to rounding offs

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.81 lakh in the next 10 years.

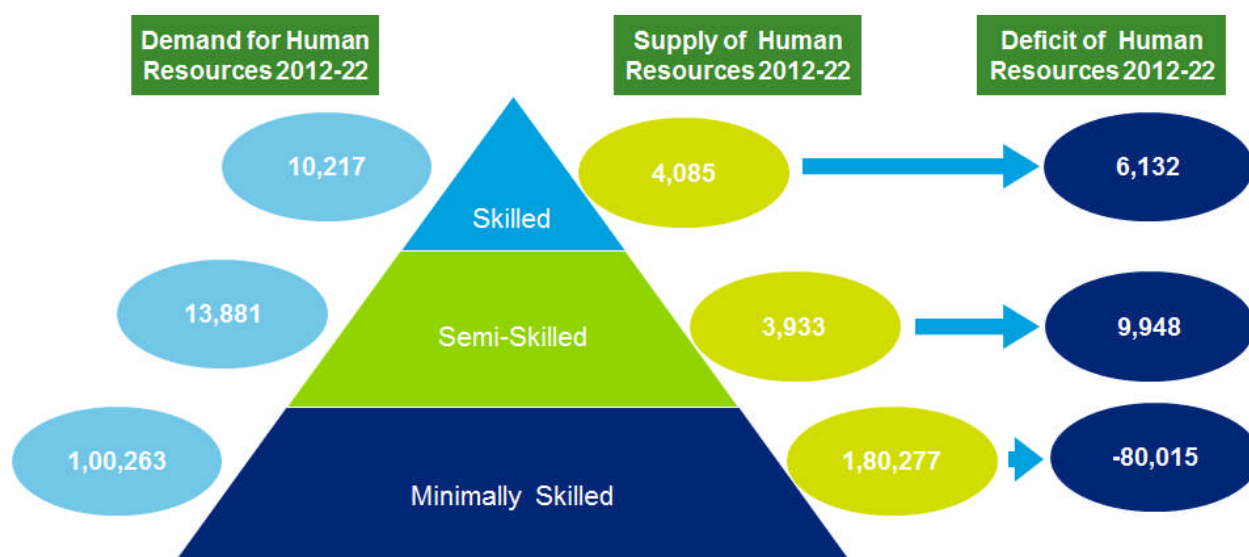
Table 4.118– Incremental manpower demand in Chatra in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2018-22
Agriculture & allied activities	40906	31448
Drivers	294	386
Domestic help	1512	1449
Security Guards	862	862
Others	1073	2201
Total	44648	36310
Total Incremental Demand – Unorganized Sectors	80957	

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be about minus (–) 0.64 lakhs²⁶⁸, indicating an excess of supply.

Figure 4.107– Incremental manpower gap in Chatra



Qualitative Skill Gaps

Table 4.119– Qualitative skill gaps in high demand sectors in Chatra

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills

²⁶⁸ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Engineering & Fabricated Products	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills

4.12.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- As jobs opportunities are limited in the district, most of the students we interacted with are either preparing for competitive examinations especially to get government jobs like the railways or planning to go to other districts of the state to find suitable employment.
- Youth in the district aspire to pursue higher studies like BCA, MCA etc. and take up jobs in the software industry.
- Most of the students feel that the courses are not modelled based on the local industry requirements. Some of the students also aspire to go for higher studies.

Going for higher studies, is the aspiration of most students. They want to pursue BCA/MCA. Many of them dream of becoming software engineers, programmers etc.

Source: Focus Group Discussion, Chatra

4.12.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Fabricated Metal Products
- Priority industries for skill development in tertiary sector are (i) Tourism, Hospitality & Travel Trade (ii) Banking and Insurance (iii) Real Estate Services
- Excess supply of minimally skilled manpower in district

Considering economic and skill landscape of Chatra, the proposed action plan would consist of the following priority areas:

Table 4.120– Recommendations and action points for Chatra

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players, including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Fabricated Metal Products - Building and Construction - Travel Trade - Real Estate Services - Banking & Finance
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Fabricated Metal Products • Update machinery & provide manuals in workshops for practical classes • Develop courses for emerging sectors like <ul style="list-style-type: none"> - Banking and Finance - Tourism, hospitality & travel • Focus on developing communication skills& basic IT skills of the students • Explore options for delivery of skill development initiatives using government endowments
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for sourcing workers for industries in industrial belt of Ranchi, Jamshedpur, Dhanbad and Bokaro; ensuring proximity

Stakeholder	Action points
	<p>of trained labour to industrial centres</p> <ul style="list-style-type: none"> • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes in the district • Focus on training/ extension support in agricultural products processing, forestry and animal husbandry (including dairy & poultry as additional source of income): • Focus on supporting creation of micro-enterprises/ ancillaries for fabricated products industries in the district • Evaluate rural skill development schemes in sectors such as construction for alignment with programmes such as NREGA • Engage with industry players like DVC and industry associations like CII & Chatra Chamber of Commerce to develop vocational training curriculum with focus on increasing employability of passing out students
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development/ educational institutes in capacity building of instructors/ teachers • Provide training, including short term courses such as modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Fabricated products industry - Banking and Finance

4.13 Palamu & Latehar

Palamu district is located in the western part of the state and is surrounded by the state of Bihar in the north, Garhwa district in the west, Chatra district in the east and Latehar district in the south. The district is spread over 556.69 thousand hectares which constitutes about 6.98% of total geographical area of Jharkhand. Administratively, the district is divided into 3 subdivisions and 13 blocks. The district headquarter is located in Daltonganj.

Latehar district was created in 2001 by separating erstwhile Latehar subdivision of Palamu district. Latehar district is located in the western part of the state and is surrounded by Palamu & Chatra districts in the north, Garhwa district & state of Chhattisgarh in the west, Chatra & Ranchi districts in the east and Lohardaga & Gumla districts in the south. The district is spread over 153.62 thousand hectares which constitutes about 1.93% of total geographical area of Jharkhand. Administratively, the district is divided into 7 blocks. The district headquarter is located in Latehar town.

4.13.1. Demography

Palamu has a population of 19.36 lakhs as of 2011 of which about 11.7% reside in urban areas²⁶⁹ which is lower in comparison to the state average. The district is relatively sparsely populated with 381 persons per sq. km. in comparison to the state average of 414²⁷⁰. The district has a lower sex ratio than the state average.

Latehar has a population of 7.25 lakhs as of 2011 of which about 7.05% reside in urban areas²⁷¹ which is lower in comparison to the state average. The district is sparsely populated with 200 persons per sq. km. in comparison to the state average of 414²⁷². The district has a higher sex ratio than the state average.

Table 4.121– Demography of Palamu & Latehar

Demography	Palamu	Latehar	Jharkhand
Population (2011)	19,36,319	7,25,673	3,29,66,238
Decadal Population Growth Rate (2001-11)	25.94%	29.38%	22.34%
Population density per sq. km (2011)	381	200	414
Sex Ratio (2011)	929	964	947
Percentage of Urban Population (2011)	12%	7%	24%
Percentage of SC population (2001)	27.5%	20.7%	11.8%
Percentage of ST population (2001)	9.0%	45.2%	26.3%

4.13.2. Economic Profile

Gross District Domestic Product (GDDP) of erstwhile Palamu district has grown at a lower growth rate (CAGR) of 6.33% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period²⁷³. Secondary sector contributes about 31.5% of the GDDP primarily on account of contribution coming from manufacturing activities.

²⁶⁹ Census of India, 2011

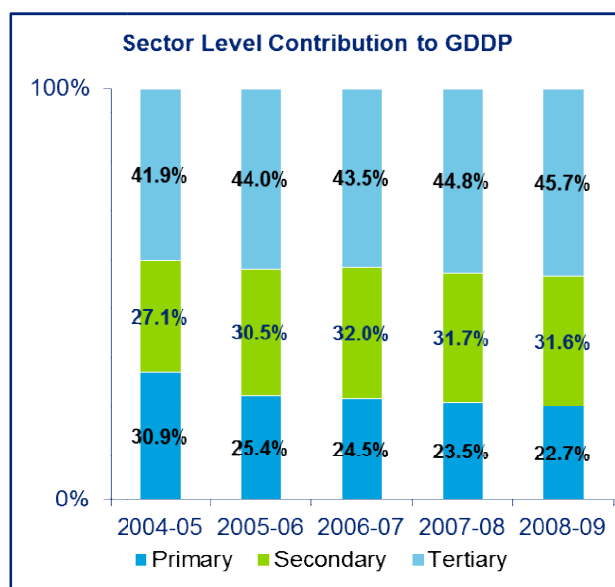
²⁷⁰ Census of India, 2011

²⁷¹ Census of India, 2011

²⁷² Census of India, 2011

²⁷³ Directorate of Economics and Statistics, Jharkhand

Figure 4.108– Sector level contribution to GDDP of Palamu & Latehar

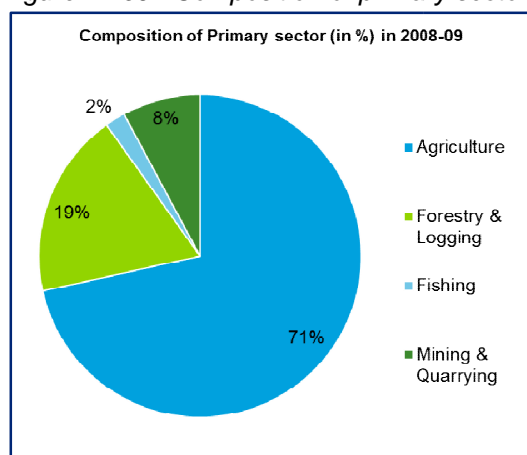


Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 22.7% to the GDDP in 2008-09²⁷⁴. The percentage contribution of primary sector to the GDDP has seen a decrease in the last few years primarily on account of decrease in contribution of agriculture.

Figure 4.109– Composition of primary sector of Palamu & Latehar



Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector – Highlights

- With more than 40% of geographical area under forests, the district has high potential for bee-keeping and lac cultivation
- Dairy and pig rearing are practised by farmers as an additional source of income.
- Mushroom cultivation and wheat seed production are new thrust areas in the district.

Source: District Agriculture Plan, NABCON

In the district, net cultivated area is only about 18.63% of the geographic area. Major crops in the district are paddy, maize, pulses consisting of Arhar, Urad, Moong, Kulthi, Chana & Masoor and oil seeds comprising of Groundnuts, Til, Sunflower, Sarguja, Andi, Sarso and Tisi. Agricultural production is characterized by mono cropping practices with only 36% of the net cropped area being irrigated.²⁷⁵

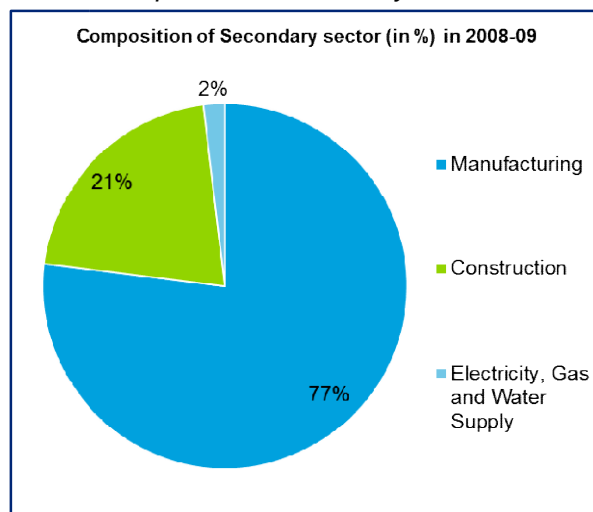
²⁷⁴ Directorate of Economics and Statistics, Jharkhand

²⁷⁵ District Agriculture Plan, Palamu

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 31.6%²⁷⁶. The sector has registered a CAGR of 10.42% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 76.9% of the contribution of the secondary sector to the GDDP.²⁷⁷

Figure 4.110– Composition of secondary sector of Palamu & Latehar

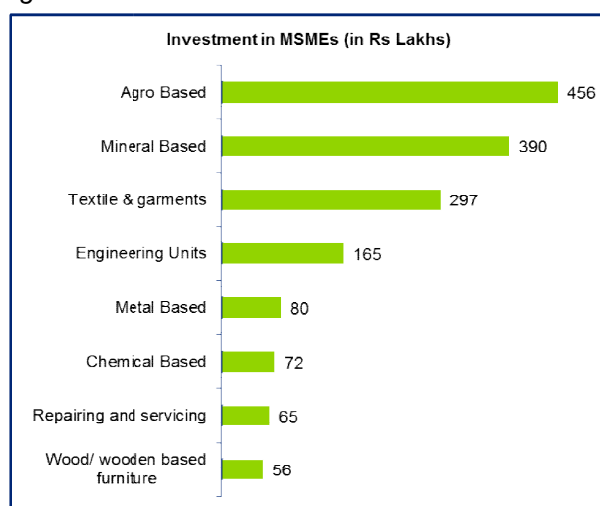


Source: Directorate of Economics & Statistics, Jharkhand

Aditya Birla Chemicals (India) Limited (formerly Bihar Caustic & Chemical Ltd.) is located in Palamu and is one of the leading Chlor-Alkali companies in India and produces liquid chlorine, hydrochloric acid, caustic soda and bleaching powder.

Palamu has two industrial areas at Daltonganj and Belchamps spread across 54 hectare of land encompasses medium and small enterprises, primarily engaged in engineering units, textiles and handlooms. Other key industries in MSME sector are in food processing & leather products.

Figure 4.111– Investments in MSME sector in Palamu & Latehar



Source: District Industrial Profile, DC-MSME

²⁷⁶ Directorate of Economics and Statistics, Jharkhand

²⁷⁷ Directorate of Economics and Statistics, Jharkhand

Upcoming Investments in Large Scale Industries in Palamu & Latehar

A number of new industrial facilities are coming up in Palamu & Latehar in the next five years. Some of the key investments are highlighted below:

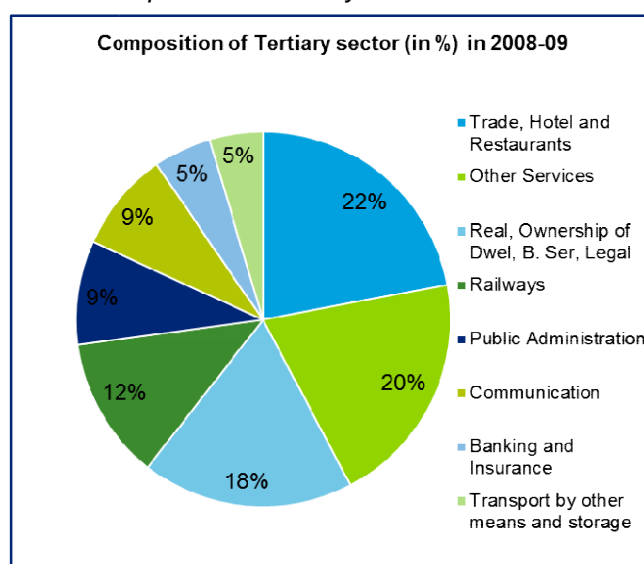
- Jharkhand Coal Based Thermal Power Project Phase – I is under progress with an estimated cost of Rs 29,000 millions
- Essar Power (Jharkhand) Ltd is setting up thermal power plant in Latehar at an estimated cost of Rs 25,000 millions

Source: CMIE Database

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 45.7% in 2008-09²⁷⁸. The sector has registered a CAGR of 8.67% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; public administration and Real Estate services.

Figure 4.112– Composition of tertiary sector of Palamu & Latehar



Source: Directorate of Economics & Statistics, Jharkhand

Hotel & restaurants and trade sector has grown at a CAGR of 9% during 2005-09. Palamu & Latehar have many important wildlife tourist attractions like Neterhat, Kechaki, Mahuamilan, Belta, etc. Palamu fort is also an important tourist place. Palamu Tiger Reserve is also located in the district of Palamu. Jharkhand Tourism Development Corporation is developing Neterhat complex at an estimated cost of Rs 35 million.

Transportation and logistics contributed about 17% of GDDP in 2008-09; out of which about 73% was contributed by railways. The export of the district consists mainly of forest produce, minerals, agricultural produce, live-stock and ghee. The railway stations that have a commercial importance within the district are Barwadih, Latehar, Daltonganj, Garhwa Road and Japla.

Education and healthcare are the main drivers for the growth of “Other Services” sector in erstwhile Palamu. Government initiatives for strengthening primary education, has generated employment opportunities in education and skill development services.

²⁷⁸ Directorate of Economics and Statistics, Jharkhand

Future Growth Opportunities in Palamu & Latehar

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential.

Table 4.122– Focus sectors and growth opportunities in Palamu & Latehar

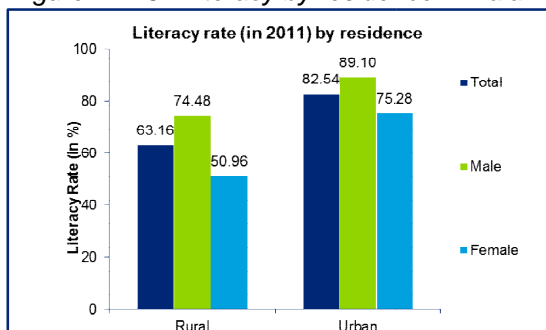
Sector/ Industry	Growth Opportunities
Food Processing	It is the highest employer in secondary sector and significant opportunities exist for dairy/ dairy products, meat from goat and poultry, mushroom and various mills like rice, dal, and oil.
Tourism and Hospitality	It is the highest contributor to the tertiary sector and is expected to continue to grow at a similar rate on account of growth tourism and investments being made by Jharkhand Tourism Development Corporation in the state.
Construction	Expansions and investments in the manufacturing sector is likely to fuel infrastructure development leading to an increase in construction activities
Education & Skill Development	Government initiatives for strengthening primary & secondary education are expected to increase opportunities for teachers & trainers.

4.13.3. Education

Palamu

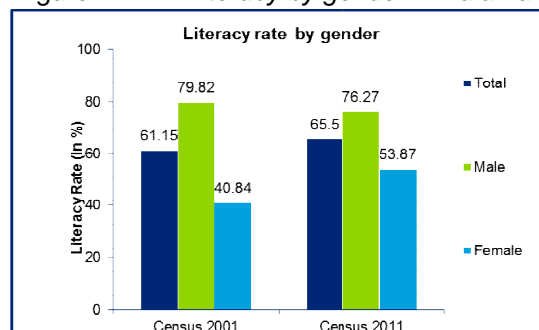
Palamu has a lower literacy rate of 65.5% in comparison to state average of 67.63%²⁷⁹. It marks a significant improvement over literacy rate of 61.15% in 2001²⁸⁰. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.113– Literacy by residence in Palamu



Source: Census 2011

Figure 4.114– Literacy by gender in Palamu



Source: Census 2001 & 2011

Palamu has 2856 schools with enrolment of about 5 lakhs²⁸¹ in primary and upper primary. Enrolment in Government schools account for 92.6% of total enrolment. 76.2% of the students attend upper primary schools after primary education. On the other hand Palamu has 135 secondary and higher secondary schools with enrolment of about 0.84 lakhs only.

In terms of vocational training infrastructure, Palamu has one Government Industrial Training Institute and 9 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, turner, electrician, wiremen and machinist whereas most of the private ITCs focus on only two trades – electrician and fitter. Government ITI, Palamu also offers 5 courses under State Council for Vocational Training (SCVT).

²⁷⁹ Census of India, 2011

²⁸⁰ Census of India, 2001

²⁸¹ DISE, 2010-11

In addition to ITIs/ITCs, Palamu has two Engineering/ Technology colleges with approved intake of 240 and 420 students respectively. The colleges offer degree programme in electrical, mechanical, computer science, IT and civil engineering.

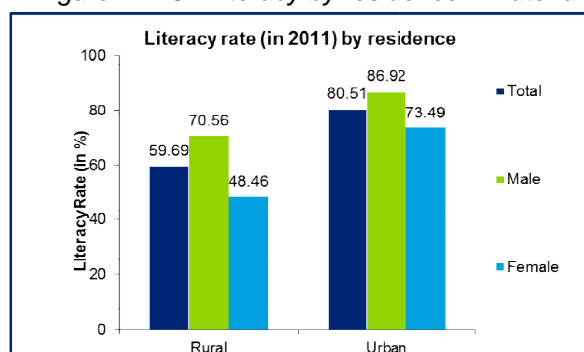
Table 4.123– Educational infrastructure in Palamu

Educational Infrastructure	Number of Institutes ²⁸²	Approved Intake	Source
Programs: Engineering/ Technology	1	660	AICTE list of accredited institutes
ITIs - Government	1	350	Ministry of Labour, Jharkhand
ITCs - Private	9	3266	Ministry of Labour, Jharkhand

Latehar

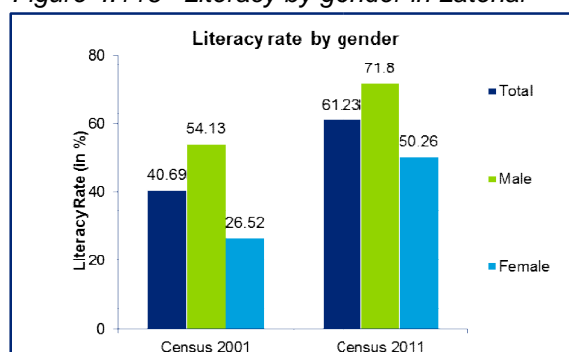
Latehar has a lower literacy rate of 61.23% in comparison to state average of 67.63%²⁸³. It marks a significant improvement over literacy rate of 40.69% in 2001²⁸⁴. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.115– Literacy by residence in Latehar



Source: Census 2011

Figure 4.116– Literacy by gender in Latehar



Source: Census 2001 & 2011

Latehar has 1300 schools with enrolment of about 1.75 lakhs²⁸⁵ in primary and upper primary. Enrolment in Government schools account for 96.3% of total enrolment. 74.2% of the students attend upper primary schools after primary education. On the other hand Latehar has 80 secondary and higher secondary schools with enrolment of about 0.23 lakhs only.

In terms of vocational training infrastructure, Latehar has one Government Women Industrial Training Institute. Major trades offered in the Government Women ITI are Mechanic (under State Council for Vocational Training), Information Technology and Stenograph.

In addition to ITIs/ITCs, Latehar has one Government Polytechnic college with approved intake of 240 students. The college offers diploma in electrical, mechanical, computer science and civil engineering.

Table 4.124– Educational infrastructure in Latehar

Educational Infrastructure	Number of Institutes ²⁸⁶	Approved Intake	Source
Polytechnic - Government	1	240	AICTE list of accredited institutes
ITIs - Government	1	133	Ministry of Labour, Jharkhand

²⁸² Same institute might offer different programs

²⁸³ Census of India, 2011

²⁸⁴ Census of India, 2001

²⁸⁵ DISE, 2010-11

²⁸⁶ Same institute might offer different programs

4.13.4. Employment Profile

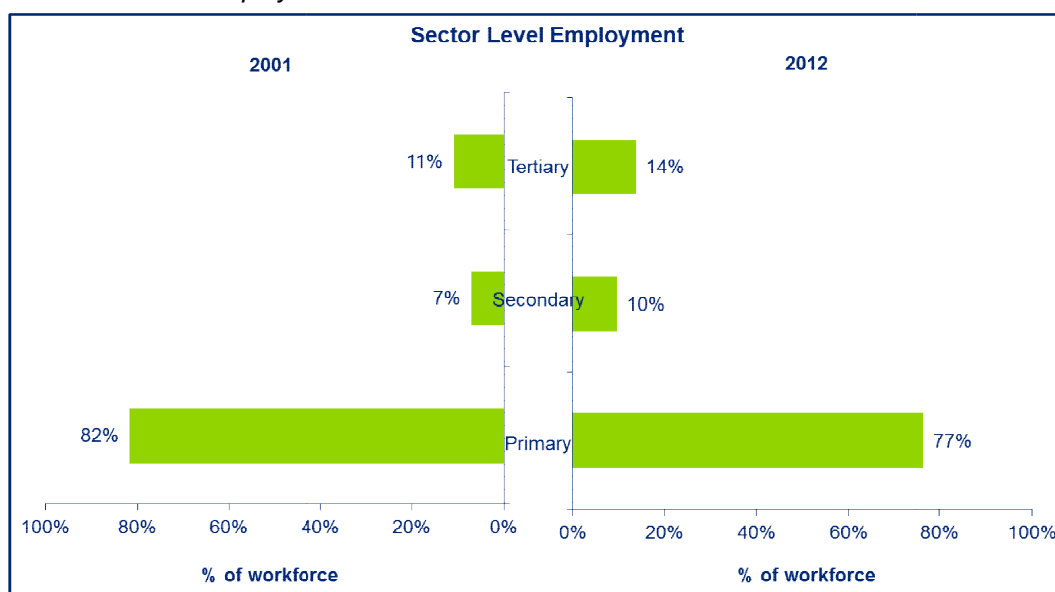
The work participation rate of erstwhile Palamu was 37.8% which is slightly higher than the state average of 37.5%²⁸⁷. Total workforce is expected to increase to 10.5 lakhs in 2012.

Table 4.125– Employment profile in Palamu & Latehar

Employment Profile (In Lakhs)	2001 ²⁸⁸	2012 ²⁸⁹
Total Population	20.98	27.26
Working Age Population	10.61	15.90
Labour Force	8.15	11.26
Workforce	7.93	10.53

About 82% of the workers in Palamu district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 76% in 2012 on account of increase in opportunities in secondary and tertiary sectors²⁹⁰.

Figure 4.117– Sector level employment in Palamu & Chatra



4.13.5. Skill Gap Assessment

Palamu

Manpower Supply

The population of Palamu in 2011 was about 19.4 lakhs which is expected to increase to about 22.2 lakhs in 2017 and about 24.9 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 3.16 lakhs.

²⁸⁷ Census of India, 2011

²⁸⁸ Census of 2001

²⁸⁹ Deloitte Analysis

²⁹⁰ Deloitte Analysis

Table 4.126– Estimated workforce of Palamu

Estimated Work Force			
	2011	2017	2022
Population	1936319	2223693	2495494
Working age population	1129562	1350534	1575458
Available Labour Force	799726	956173	1115419
Projected Work Force	746285	862384	955516
Incremental manpower supply (2012-22)	315693		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.127– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	5440	5269	10708
Semi-Skilled	13494	10848	24342
Minimally skilled	137513	143129	280642

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 2.05 lakhs including 0.71 lakhs in organized sectors and 1.35 lakhs in unorganized sectors.

About two-third of the incremental manpower demand is expected to come from unorganized sector including agriculture and allied activities. The manpower demand in the organized sector is expected to be primarily driven by food processing, building & construction, textiles, tourism & trade, education & skill development and handloom & handicrafts.

The secondary sector which contributes about 31.5% of the GDDP is expected to continue its growth as about 40% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by food processing industry, mineral based products, food processing, handloom & handicrafts and building & construction.

Tertiary sector which contributes about 45.7% % of the GDDP is anticipated to continue its growth driven by tourism & trade, education & skill development services, transportation & logistics and business services.

Table 4.128– Incremental manpower demand in Palamu in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ²⁹¹	24	79	685	18	61	527
Mining and Quarrying	27	53	187	20	40	141
Total (I)	50	132	872	38	101	668
Secondary Sector						
Mineral Based Products	229	688	229	191	573	191
Leather and Leather Goods	-	-	153	-	-	128
Chemical & Pharmaceuticals	67	112	45	56	94	37
Other Manufacturing	116	194	465	97	161	387
Building and Construction	651	1628	4232	511	1276	3318
Food Processing/ Cold Chain/ Refrigeration	193	580	3095	161	483	2576
Wood / Wooden based furniture	162	162	2914	135	135	2425
Total (II)	1418	3364	11133	1151	2722	9062
Tertiary Sector						
Tourism Hospitality and Travel Trade	3246	3246	1623	2456	2456	1228
Transportation & Logistics/ warehousing/ packaging	273	547	1914	224	448	1569
Real Estate Services	990	990	1980	914	914	1828
Media & Entertainment	509	459	51	421	379	42
Healthcare Services	259	2083	0	46	331	0
Banking Insurance & Finance	755	89	44	713	84	42
Education/ Skill Development Services	1654	2246	-	2020	1251	-
Total (III)	7686	9660	5612	6794	5863	4709
Grand Total (I+II+III)	9175	13177	17632	7997	8702	14450
Total Incremental Demand	71132					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.60 lakhs in the next 10 years.

Table 4.129– Incremental manpower demand in Palamu in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	70186	53957
Drivers	1542	1768
Others	2476	4607
Total	74204	60332
Total Incremental Demand – Unorganized Sectors	134536	

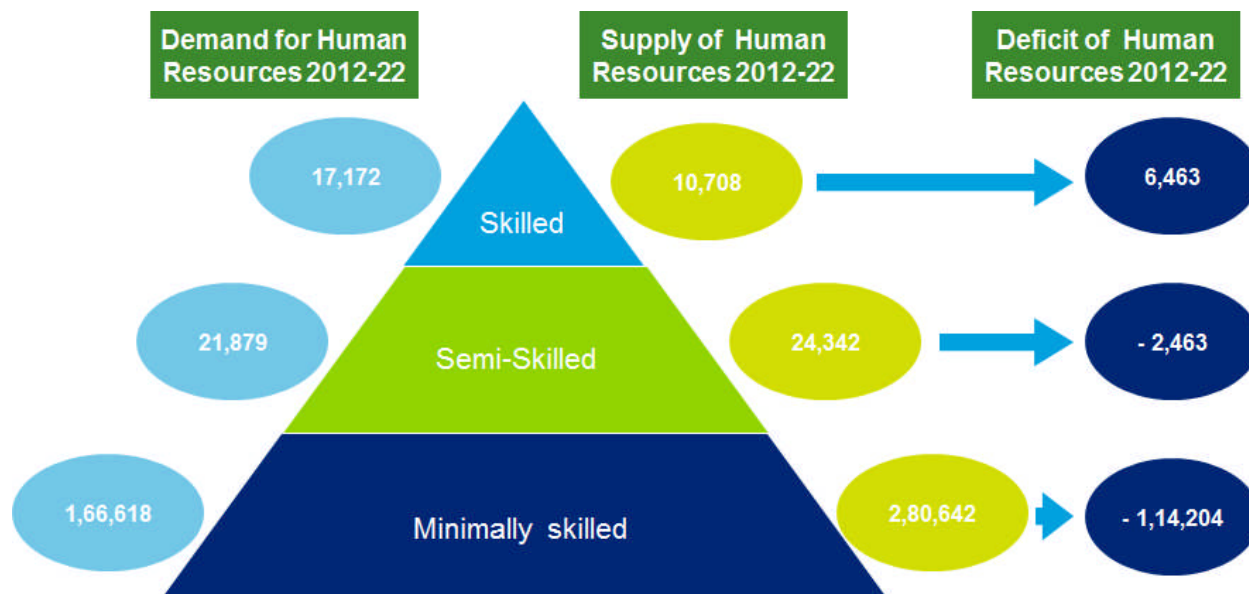
²⁹¹ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 1.1 lakhs.²⁹²

Figure 4.118– Incremental manpower gap in Palamu



Latehar

Manpower Supply

The population of Latehar in 2011 was about 7.26 lakhs which is expected to increase to about 8.47 lakhs in 2017 and about 9.63 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.31 lakhs.

Table 4.130– Estimated workforce of Latehar

Estimated Work Force			
	2011	2017	2022
Population	725673	846957	963374
Working age population	423325	514389	608198
Available Labour Force	299713	364186	430602
Projected Work Force	279685	323195	358098
Incremental manpower supply (2012-22)	130889		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

²⁹²The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Table 4.131– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	1314	1615	2929
Semi-Skilled	1802	1353	3154
Minimally skilled	61358	63448	124806

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.77 lakhs including 0.27 lakhs in organized sectors and 0.50 lakhs in unorganized sectors.

About two-third of the incremental manpower demand is expected to come from unorganized sector including agriculture and allied activities. The manpower demand in the organized sector is expected to be primarily driven by food processing, building & construction, tourism & trade, education & skill development and handloom & handicrafts.

The secondary sector which contributes about 31.5% of the GDDP is expected to continue its growth as about 40% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by food processing industry, mineral based products, food processing, handloom & handicrafts and building & construction.

Tertiary sector which contributes about 45.7% % of the GDDP is anticipated to continue its growth driven by tourism & trade, education & skill development services, transportation & logistics and business services.

Table 4.132– Incremental manpower demand in Latehar in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally	Skilled	Semi-Skilled	Minimally
Primary Sector						
Agriculture & allied activities ²⁹³	-	30	257	-	23	197
Mining and Quarrying	10	20	70	-	15	53
Total (I)	10	50	327		38	250
Secondary Sector						
Mineral Based Products	86	258	86	72	215	72
Leather and Leather Goods	-	-	57	-	-	48
Chemical & Pharmaceuticals	25	42	17	21	35	14
Other Manufacturing	44	73	174	36	60	145
Building and Construction	244	610	1586	191	478	1244
Food Processing/ Cold Chain/ Refrigeration	72	217	1160	60	181	965
Wood / Wooden based furniture	61	61	1092	50	50	909
Total (II)	532	1261	4172	430	1019	3397
Tertiary Sector						
Tourism Hospitality and Travel Trade	1217	1217	608	921	921	460
Transportation & Logistics/ warehousing/ packaging	102	205	717	84	168	588
Real Estate Services	371	371	742	343	343	685
Media & Entertainment	191	172	19	158	142	16
Healthcare Services	97	781	0	17	124	0
Banking Insurance & Finance	283	33	17	267	31	16
Education/ Skill Development Services	620	842	0	757	469	0
Total (III)	2881	3621	2103	2547	2198	1765
Grand Total (I+II+III)	3439	4938	6608	2997	3261	5415
Total Incremental Demand	26658					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.5 lakhs in the next 10 years.

Table 4.133– Incremental manpower demand in Latehar in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	26303	20222
Drivers	578	663
Others	928	1726
Total	27809	22611
Total Incremental Demand – Unorganized Sectors	50420	

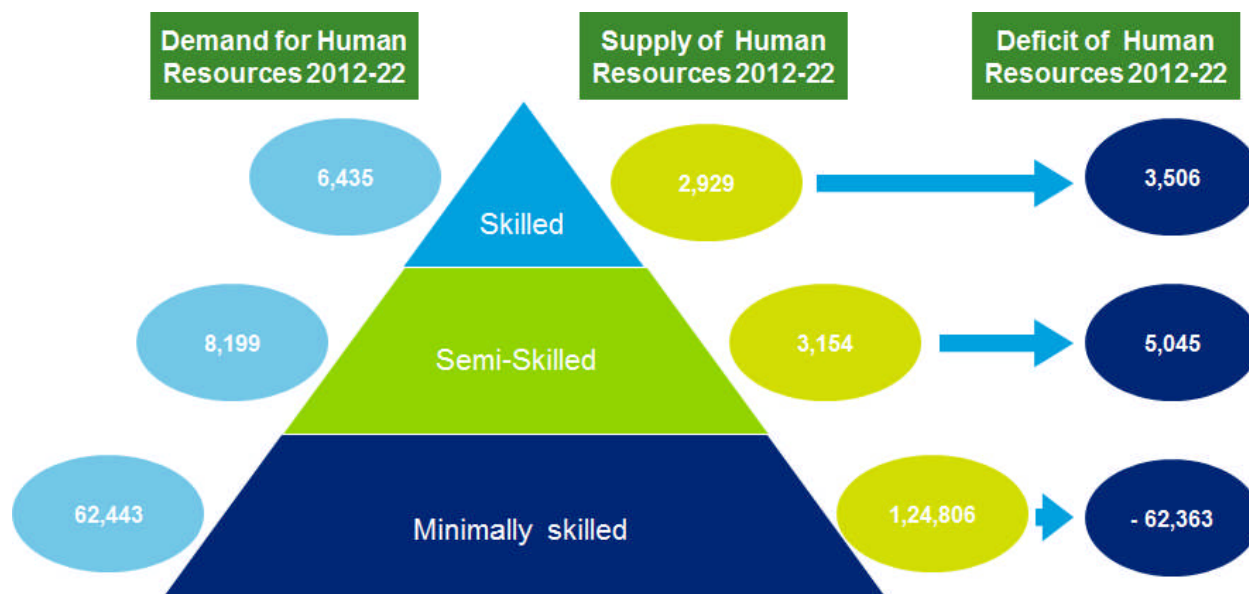
²⁹³ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) -Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.54 lakhs.²⁹⁴

Figure 4.119– Incremental manpower gap in Latehar



Qualitative Skill Gap

Table 4.134– Qualitative skill gaps in high demand sectors in Palamu & Latehar

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques

²⁹⁴ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
Education & Skill Development	Teacher	<ul style="list-style-type: none"> - Strong theoretical knowledge of subject - Ability to communicate the knowledge in an easy to comprehend manner to the students
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate courtesy level - Lack of discipline - Insufficient communication skills

4.13.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the Government sector or Indian Railways. However, as PSUs and Indian Railways conduct their own entrance examinations to select candidates and campus selection facility in the institutes in which they are studying are minimal, most of pass out students apply for jobs in the open markets.
- The Small and Medium industries present in Palamu & Latehar do not require skilled labour. So, many students are forced to migrate to other districts/ states to get employment.
- Students highlighted lack of continuous power supply and old & outdated machinery in the workshop as major barriers in skill development in the institutes. Also, lack of soft skills training has also been identified as a hindrance for many students to get jobs in the open market.

Youth in Palamu aspire to start their own business; however lack of continuous power supply is a key constraint.

Source: Focus Group Discussion, Palamu

4.13.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Food Processing & (iii) Handloom & Handicrafts
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Education & Skill Development

Considering economic and skill landscape of Palamu & Latehar, the proposed action plan would consist of the following priority areas:

Table 4.135– Recommendations and action points for Palamu & Latehar

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Food Processing - Education & Skill Development - Tourism, hospitality & travel
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Food Processing - Skill Development Update machinery & provide manuals in workshops for practical classes Develop short term courses in collaboration with industry players for labour intensive sectors like: <ul style="list-style-type: none"> - Food Processing - Handicrafts - Tourism, hospitality & travel - Transportation & logistics - Drivers Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> Establish training initiatives in PPP mode for coal & steel industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income Focus on supporting creation of micro-enterprises/ ancillaries for iron & steel sector in the district
Industry	<ul style="list-style-type: none"> Collaborate with skill development institutes for updating course content & creating linkages for placement Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Education & Skill Development - Tourism - Transportation & Logistics

4.14 Hazaribagh & Ramgarh

Hazaribagh district is located in the northern part of the state and is surrounded by districts of Gaya and Koderma in the north, Giridih and Bokaro in the east, Ramgarh in the south and Chatra in the west. The district is spread over 430.2 thousand hectares which constitutes about 5.4% of total geographical area of Jharkhand. Administratively, the district is divided into 2 subdivisions and 16 blocks. The district headquarter is located in Hazaribagh town.

Ramgarh district was carved out of Hazaribagh district in 2007. Ramgarh district is located in the eastern part of the state and is surrounded by Bokaro district in the north, state of West Bengal in the east, Hazaribagh district in the west and Ranchi district in the south. The district is spread over 138.9 thousand hectares which constitutes about 1.74% of total geographical area of Jharkhand. Administratively, the district is divided into 1 subdivision and 4 blocks. The district headquarter is located in Ramgarh town.

4.14.1. Demography

Hazaribagh has a population of 17.34 lakhs as of 2011 of which about 15.88% reside in urban areas²⁹⁵ which is lower in comparison to the state average. The district is relatively sparsely populated with 403 persons per sq. km. in comparison to the state average of 414²⁹⁶. The district has a marginally lower sex ratio than the state.

Ramgarh has a population of 9.49 lakhs as of 2011 of which about 44.13% reside in urban areas²⁹⁷ which is much higher in comparison to the state average. The district is densely populated with 684 persons per sq. km. in comparison to the state average of 414²⁹⁸. The district has a lower sex ratio than the state.

Table 4.136– Demography of Hazaribagh & Ramgarh

Demography	Hazaribagh	Ramgarh	Jharkhand
Population (2011)	17,34,005	9,49,159	3,29,66,238
Decadal Population Growth Rate (2001-11)	25.75%	13.06%	22.34%
Population density per sq. km (2011)	403	684	414
Sex Ratio (2011)	946	921	947
Percentage of Urban Population (2011)	15.88%	44.13%	24%
Percentage of SC population (2001)	15.02%	15.02%	11.8%
Percentage of ST population (2001)	11.78%	11.78%	26.3%

4.14.2. Economic Profile

Gross District Domestic Product (GDDP) of erstwhile Hazaribagh district has grown at a lower growth rate (CAGR) of 5.64% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period²⁹⁹. Tertiary sector contributes about 42.8% of the GDDP primarily on account of contribution of trade, hotel & restaurants.

²⁹⁵ Census of India, 2011

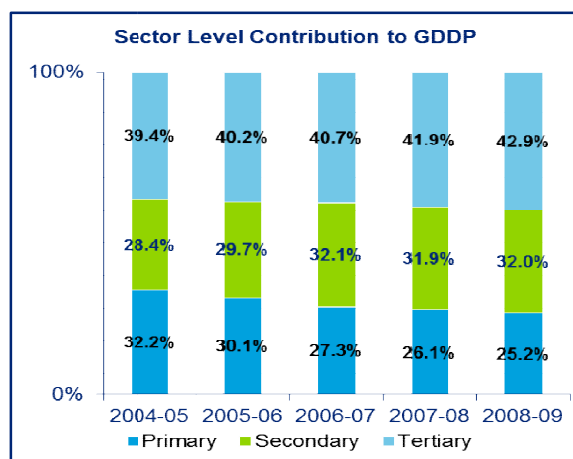
²⁹⁶ Census of India, 2011

²⁹⁷ Census of India, 2011

²⁹⁸ Census of India, 2011

²⁹⁹ Directorate of Economics and Statistics, Jharkhand

Figure 4.120– Sector level contribution to GDDP of Hazaribagh & Ramgarh



Source: Directorate of Economics & Statistics, Jharkhand

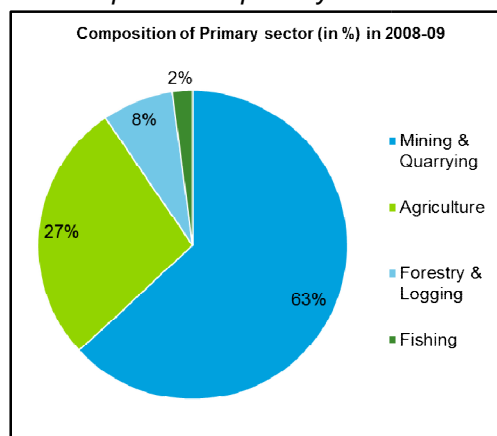
Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 25.2% to the GDDP in 2008-09³⁰⁰. The percentage contribution of primary sector to the GDDP has seen a decrease during the period primarily due to decrease in contribution of mining & quarrying.

Figure 4.121– Composition of primary sector of Hazaribagh & Ramgarh

About 43.94 % of land in Hazaribagh district is under forest cover which can be used for cultivation of Medicinal and Aromatic plants and forest based units.

The District Horticulture Department has planned to cover all the blocks with orchards of Mango, Guava and Jackfruit



Source: Directorate of Economics & Statistics, Jharkhand

The major crops cultivated in Hazaribagh are Paddy, Wheat and Maize. However, only 3.86% of the total geographical area and 14.5% of the net cropped area is irrigated. A reeling & twisting centre (Post Cocoon Sericulture) for SHG members has been established by PRADAN (an NGO) in Barhi & Chauparan blocks with financial assistance from Central Silk Board. Women SHG members are engaged in reeling of cocoons / yarn in these centers.

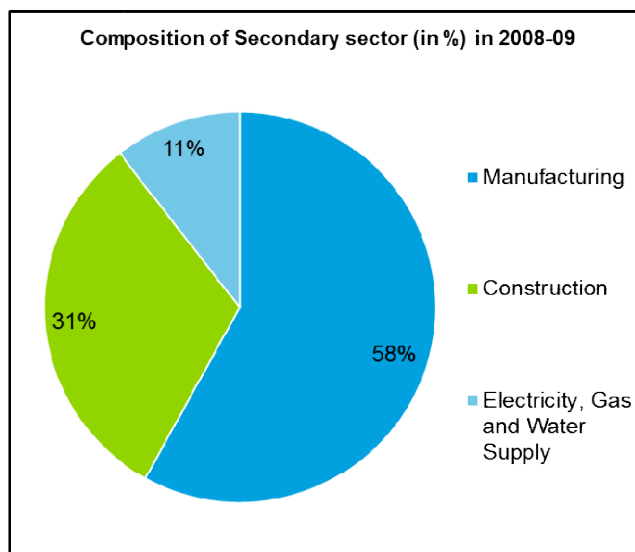
In the district, minerals such as limestone, fire clay, china clay, quartz & coal are found. Central Coalfields Ltd., Jharkhand State Mineral Development Corporation and GVK Coal (Tokisud) Co. Pvt. Ltd. are working on coal projects in the district & are expected to invest about Rs 9,416 million.

³⁰⁰ Directorate of Economics and Statistics, Jharkhand

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 31.96%³⁰¹. The sector has registered a CAGR of 8.83% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 58% of the contribution of the secondary sector to the GDDP.³⁰²

Figure 4.122– Composition of secondary sector of Hazaribagh & Ramgarh

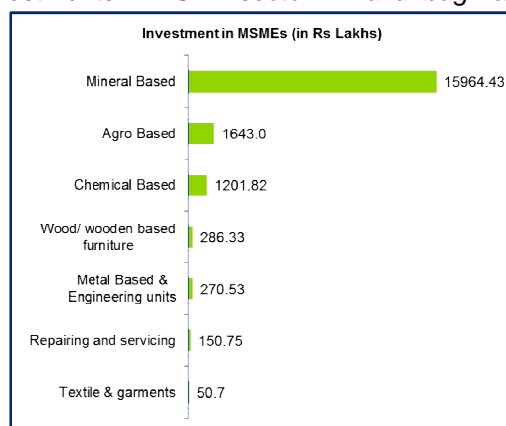


Source: Directorate of Economics & Statistics, Jharkhand

Hazaribagh and Ramgarh districts are home to various large industries like Hindustan Petroleum Corporation Corp. Ltd., Bihar Wood Product, Balajee Refractories Pvt. Ltd., Bihar Foundry & Casting Ltd., Eastern Minerals & Industries Ltd. etc. Mineral and metallic products contribute about 65% of the industrial output of the district. However, textiles and handicrafts employ about 40% of the industrial workers.

Ramgarh & Hazaribagh districts have two and one industrial area respectively; spread across about 115 hectare of land and encompass medium and small enterprises, primarily engaged in mineral based products. Other key industries in MSME sector are agro based, chemical/ chemical based products and handicrafts/ wood based furniture.

Figure 4.123– Investments in MSME sector in Hazaribagh & Ramgarh



Source: District Industrial Profile, DC-MSME

³⁰¹ Directorate of Economics and Statistics, Jharkhand

³⁰² Directorate of Economics and Statistics, Jharkhand

Upcoming Investments in Large Scale Industries in Hazaribagh & Ramgarh:

Some of the key investments are highlighted below:

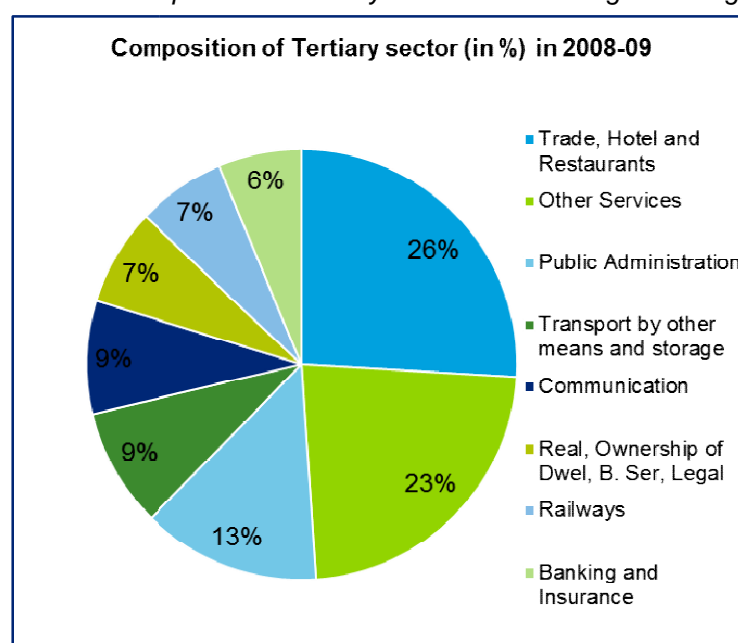
- Burnpur Cement Ltd. is setting up a cement plant at Patratu at an estimated investment of Rs 1,974 million.
- Four laning of Barhi – Hazaribagh highway (NH-33) at an estimated cost of Rs 4,000 million
- Koderma Ranchi rail lines are being laid at an estimated cost of Rs 25,000 million

Source: CMIE Database

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 42.85% in 2008-09³⁰³. The sector has registered a CAGR of 7.87% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants & transportation.

Figure 4.124– Composition of tertiary sector of Hazaribagh & Ramgarh



Source: Directorate of Economics & Statistics, Jharkhand

Hazaribagh has many locations of tourist importance like Narsigsthan temple, Surajkund, Raj Derwah, Canary hill & Konar dam. Recent developments like four laning of Barhi - Hazaribagh highway along with laying of railway lines for Hazaribagh - Ranchi railways is expected to increase contribution of transportation. The district has many MSMEs engaged in tertiary sector like computer centres, hotel & restaurants, repairing of appliances etc.

Future Growth Opportunities in Hazaribagh & Ramgarh

Table 4.137– Focus sectors and growth opportunities in Hazaribagh & Ramgarh

Sector/ Industry	Growth Opportunities
Mineral Products	Mining and Quarrying is the highest contributor to the primary sector and will continue to create opportunities for coal mine & mineral based industries such as stone-crusher, stone-cutting and polishing unit, mineral grinding, mineral processing

³⁰³ Directorate of Economics and Statistics, Jharkhand

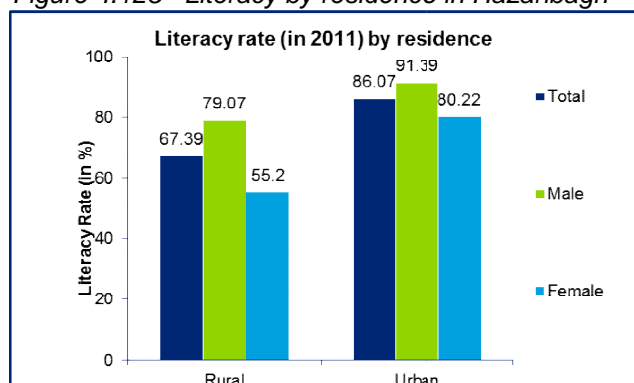
Sector/ Industry	Growth Opportunities
Textile & Garments	Textile and garments employ the highest number of industrial workers in the district and it is expected to grow, mostly in MSME sectors
Education & Skill Development	The district is likely source for supply of skilled manpower to industrial belt of Ranchi-Bokaro-Dhanbad due to its geographical proximity
Construction	Expansions and investments in the infrastructure sector (highways & railway lines) is likely to result in an increase in construction activities
Handloom & Handicraft	Handicraft industry based on cane and bamboo is expected to generate employment in the district
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector

4.14.3. Education

Hazaribagh

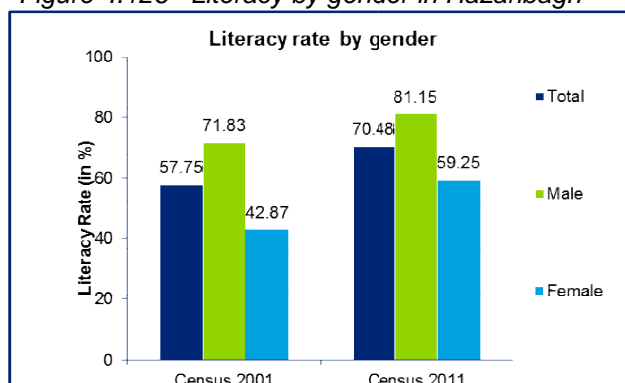
Hazaribagh has a higher literacy rate of 70.48% in comparison to state average of 67.63%³⁰⁴. It marks a significant improvement over literacy rate of 57.75% in 2001³⁰⁵. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.125– Literacy by residence in Hazaribagh



Source: Census 2011

Figure 4.126– Literacy by gender in Hazaribagh



Source: Census 2001 & 2011

Hazaribagh has 1700 schools with enrolment of about 3.3 lakhs³⁰⁶ in primary and upper primary. Enrolment in Government schools account for 88.6% of total enrolment. 76.9% of the students attend upper primary schools after primary education. On the other hand, Hazaribagh has 174 secondary and higher secondary schools with enrolment of about 0.67 lakhs only.

In terms of vocational training infrastructure, Hazaribagh has one Government Industrial Training Institute, one Government Women Industrial Training Institute and 9 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, turner, electrician, wiremen and machinist whereas most of the private ITCs focus on only two trades – electrician and fitter. Government ITI, Hazaribagh also offers 8 courses under State Council for Vocational Training (SCVT). Similarly, Government Women ITI has only 2 trades which are under SCVT.

In addition to ITIs/ITCs, Hazaribagh has one Engineering/ Technology colleges with approved intake of 240 students respectively. The college offers degree programme in computer science, IT, electronics and mechanical engineering.

³⁰⁴ Census of India, 2011

³⁰⁵ Census of India, 2001

³⁰⁶ DISE, 2010-11

Table 4.138– Educational infrastructure in Hazaribagh

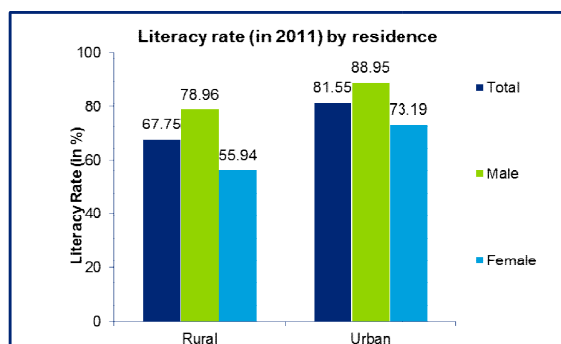
Educational Infrastructure	Number of Institutes 307	Approved Intake	Source
Programs: Engineering/ Technology	1	240	AICTE list of accredited institutes
ITIs - Government	2	843	Ministry of Labour, Jharkhand
ITCs - Private	9	2159	Ministry of Labour, Jharkhand

Hazaribagh has a number of private sector players engaged in skill development. Some of the major players include NIIT, Aptech Computer Education, Jharkhand Motor Training Centre etc.

Ramgarh

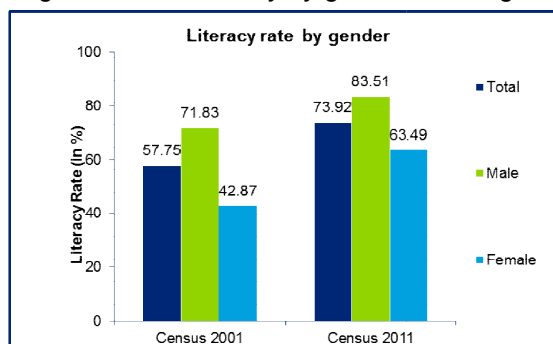
Ramgarh has a higher literacy rate of 73.92% in comparison to state average of 67.63%³⁰⁸. It marks a significant improvement over literacy rate of 57.75% in 2001³⁰⁹. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.127– Literacy by residence in Ramgarh



Source: Census 2011

Figure 4.128– Literacy by gender in Ramgarh



Source: Census 2001 & 2011

Ramgarh has 818 schools with enrolment of about 1.77 lakhs³¹⁰ in primary and upper primary. Enrolment in Government schools account for 78.06% of total enrolment. On the other hand, Ramgarh has 85 secondary and higher secondary schools with enrolment of about 0.48 lakhs only.

In terms of vocational training infrastructure, Ramgarh has one Government Industrial Training Institute and 2 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, electrician, wiremen and machinist, all of which are under State Council for Vocational Training (SCVT). The private ITCs focus on only two trades – electrician and fitter.

In addition to ITIs/ITCs, a new Government engineering college is coming up in Ramgarh. The government has plans for also opening a Women Engineering College in Ramgarh.

Table 4.139– Educational infrastructure in Ramgarh

Educational Infrastructure	Number of Institutes 311	Approved Intake	Source
ITIs - Government	1	289	Ministry of Labour, Jharkhand
ITCs - Private	2	979	Ministry of Labour, Jharkhand

³⁰⁷ Same institute might offer different programs

³⁰⁸ Census of India, 2011

³⁰⁹ Census of India, 2001

³¹⁰ DISE, 2010-11

³¹¹ Same institute might offer different programs

Ramgarh has significant number of private sector players engaged in skill development. Some of the major players include NIIT, J S Education & Computer Academy, Lalani Computer Academy and Aptech Computer Education.

4.14.4. Employment Profile

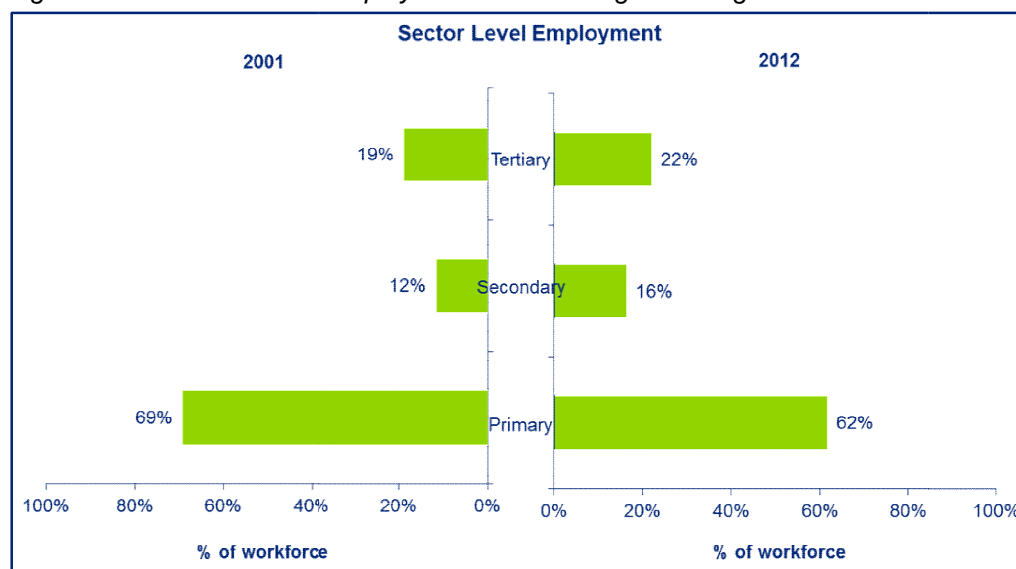
The work participation rate of erstwhile Hazaribagh district was 34.7% which is lower than the state average of 37.5%³¹². Total workforce is expected to increase to 10.7 lakhs in 2012.

Table 4.140– Employment profile in Hazaribagh & Ramgarh

Employment Profile (In Lakhs)	2001 ³¹³	2012 ³¹⁴
Total Population	22.8	27.5
Working Age Population	12.1	16.9
Labour Force	8.3	10.9
Workforce	7.9	10.7

About 69% of the workers in Hazaribagh district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 61% in 2012 on account of increase in opportunities in secondary and tertiary sectors³¹⁵.

Figure 4.129– Sector level employment in Hazaribagh & Ramgarh



³¹² Census of India, 2011

³¹³ Census of 2001

³¹⁴ Deloitte Analysis

³¹⁵ Deloitte Analysis

4.14.5. Skill Gap Assessment

Hazaribagh

Manpower Supply

The population of Hazaribagh in 2011 was about 17.34 lakhs which is expected to increase to about 19.9 lakhs in 2017 and about 22.3 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 2.66 lakhs.

Table 4.141– Estimated workforce of Hazaribagh

Estimated Work Force			
	2011	2017	2022
Population	1734005	1989552	2231050
Working age population	1063502	1268256	1476051
Available Labour Force	686977	819239	953465
Projected Work Force	670459	804635	922876
Incremental manpower supply (2012-22)	266488		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.142– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	11911	12326	24237
Semi-Skilled	14785	11965	26750
Minimally skilled	105567	109935	215502

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 2.51 lakhs including 1.51 lakhs in organized sectors and 1 lakh in unorganized sectors.

About 60% of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, business services and mineral based products. The secondary sector which contributes about 31.9% of the GDDP is expected to continue its growth as about 51% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by mineral based products, handloom & handicrafts and building & construction.

Tertiary sector which contributes about 42.8% of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, media & entertainment, transportation & logistics and business services.

Table 4.143– Incremental manpower demand in Hazaribagh in organized sectors

Incremental Demand – Organized sectors		2012-17			2017-2022	
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ³¹⁶	12	39	342	-	30	257
Mining and Quarrying	165	331	1158	120	239	837
Total (I)	177	370	1500	120	269	1094
Secondary Sector						
Mineral Based Products	1139	3418	1139	1039	3117	1039
Leather and Leather Goods	-	-	61	-	-	55
Textile & Garments	203	405	3443	185	369	3140
Non-Metallic Products	619	1858	619	565	1694	565
Chemical & Pharmaceuticals	63	105	42	57	96	38
Other Manufacturing	361	602	1445	329	549	1318
Building and Construction	2182	5455	14183	1884	4709	12243
Wood / Wooden based furniture	173	173	3122	158	158	2847
Total (II)	4740	12016	24054	4217	10692	21245
Tertiary Sector						
Tourism Hospitality and Travel Trade	8521	8521	4260	7090	7090	3545
Transportation & Logistics/ warehousing/ packaging	298	596	2084	240	481	1682
Real Estate Services	1018	1018	2037	1149	1149	2298
Media & Entertainment	1187	1068	119	1100	990	110
Healthcare Services	237	2214	0	42	298	0
Banking Insurance & Finance	2030	239	119	2213	260	130
Education/ Skill Development Services	1116	1464	0	1195	1100	0
Total (III)	14407	15120	8619	13029	11368	7765
Grand Total (I+II+III)	19398	27607	34286	17429	22403	30186
Total Incremental Demand	151310					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 1 lakhs in the next 10 years.

Table 4.144– Incremental manpower demand in Hazaribagh in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	35072	26298
Drivers	4597	5118
Others	12576	16231
Total	52244	47647
Total Incremental Demand – Unorganized Sectors	99891	

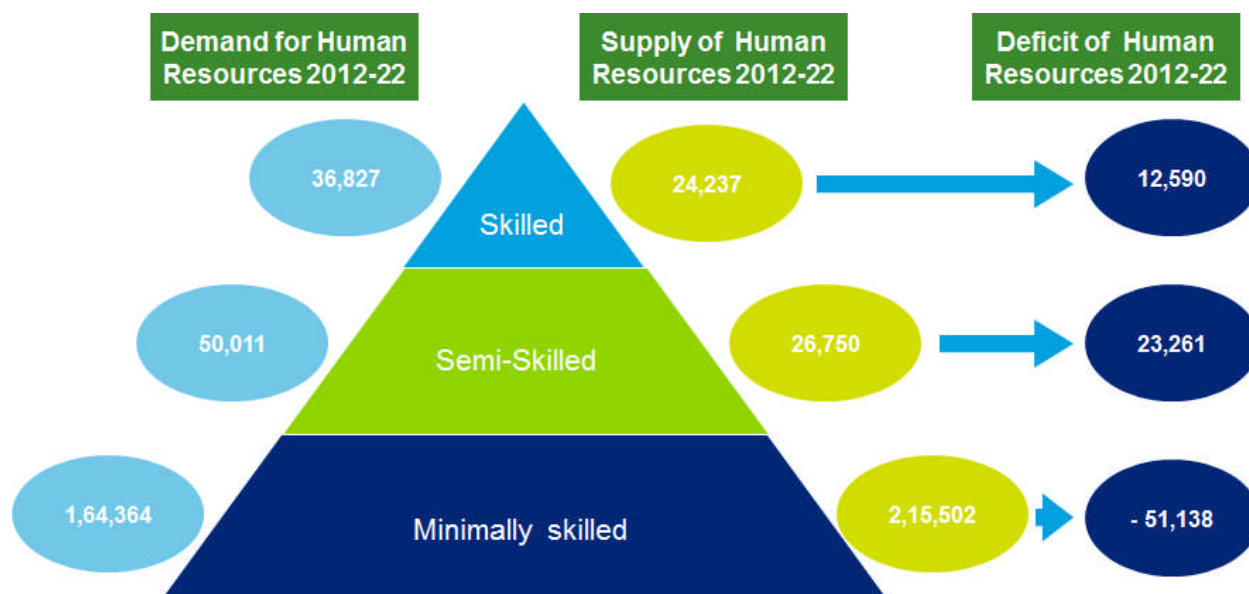
³¹⁶ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.15 lakhs.³¹⁷

Figure 4.130– Incremental manpower gap in Hazaribagh



Ramgarh

Manpower Supply

The population of Ramgarh in 2011 was about 9.49 lakhs which is expected to increase to about 11.08 lakhs in 2017 and about 12.6 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.62 lakhs.

Table 4.145– Estimated workforce of Ramgarh

Estimated Work Force			
	2011	2017	2022
Population	949159	1107795	1260066
Working age population	582139	706173	833653
Available Labour Force	376037	456157	538504
Projected Work Force	366996	440441	505164
Incremental manpower supply (2012-22)	162467		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.146– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	1614	1351	2965
Semi-Skilled	4218	3320	7538

³¹⁷ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Minimally skilled	74288	77676	151964
-------------------	-------	-------	--------

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 1.38 lakhs including 0.83 lakhs in organized sectors and 0.55 lakhs in unorganized sectors.

About 60% of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, business services and mineral based products. The secondary sector which contributes about 31.9% of the GDDP is expected to continue its growth as about 51% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by mineral based products, handloom & handicrafts and building & construction.

Tertiary sector which contributes about 42.8% % of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, media & entertainment, transportation & logistics and business services.

Table 4.147– Incremental manpower demand in Ramgarh in organized sectors

Incremental Demand –	2012-17			2017-2022		
Organized sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ³¹⁸	-	22	187	-	16	141
Mining and Quarrying	91	181	634	65	131	458
Total (I)	91	203	821	65	147	599
Secondary Sector						
Mineral Based Products	624	1871	624	569	1706	569
Textile & Garments	111	222	1885	101	202	1719
Leather and Leather Goods	-	-	33	-	-	30
Non-Metallic Products	339	1017	339	309	927	309
Chemical & Pharmaceuticals	34	57	23	31	52	21
Other Manufacturing	198	330	791	180	301	721
Building and Construction	1194	2986	7763	1031	2577	6701
Wood / Wooden based furniture	95	95	1709	87	87	1558
Total (II)	2595	6578	13167	2308	5852	11628
Tertiary Sector						
Tourism Hospitality and Travel Trade	4664	4664	2332	3881	3881	1941
Transportation & Logistics/ warehousing/ packaging	163	326	1141	132	263	921
Real Estate Services	557	557	1115	629	629	1258
Media & Entertainment	650	585	65	602	542	60
Healthcare Services	129	1212	0	23	163	0
Banking Insurance & Finance	1111	131	65	1212	143	71
Education/ Skill Development Services	611	801	0	654	602	0
Total (III)	7885	8276	4718	7133	6223	4251
Grand Total (I+II+III)	10618	15112	18768	9540	12263	16523
Total Incremental Demand	82824					

³¹⁸ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) -Totals may not match due to rounding offs

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.55 lakhs in the next 10 years.

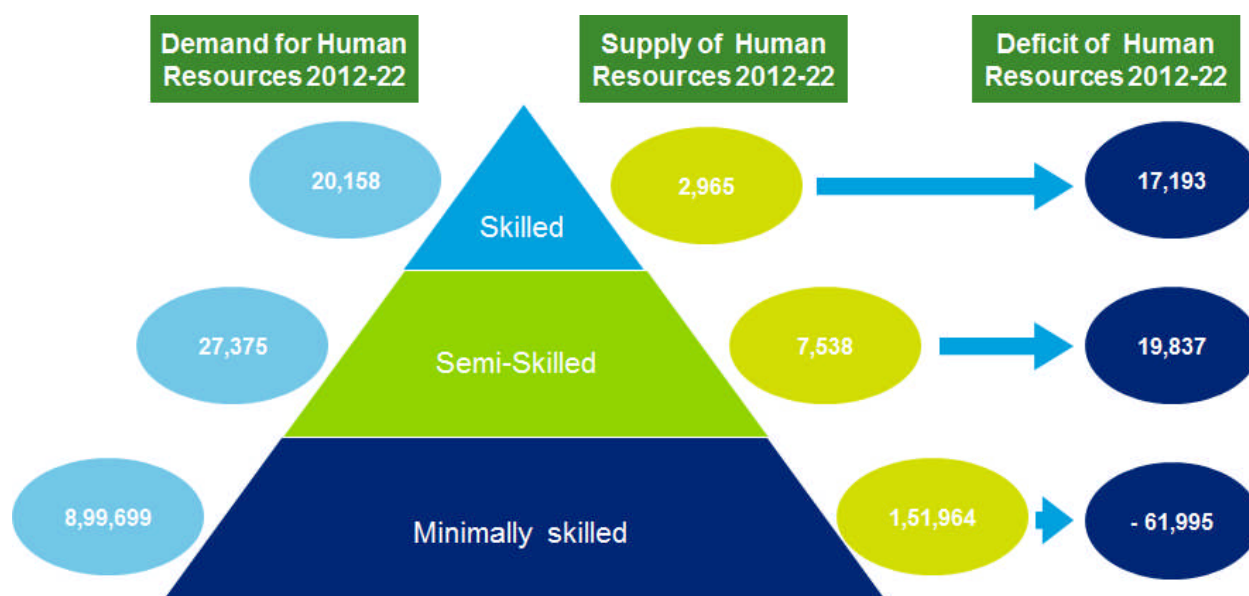
Table 4.148– Incremental manpower demand in Ramgarh in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	19197	14395
Drivers	2516	2801
Others	6884	8884
Total	28597	26081
Total Incremental Demand – Unorganized Sectors	54678	

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.25 lakhs.³¹⁹

Figure 4.131– Incremental manpower gap in Ramgarh



Qualitative Skill Gaps

Table 4.149– Qualitative skill gaps in high demand sectors in Hazaribagh & Ramgarh

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts

³¹⁹The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
		<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Mineral Products	Workmen	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts
Textile & garments	Operator	<ul style="list-style-type: none"> - Skill confined to single or few machines - Lack of knowledge of quality compliance - Lack of ability to plan and multitask
	Sales executive	<ul style="list-style-type: none"> - Lack of negotiation skills - Inadequate communication and networking skills
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Education & Skill Development	Teacher	<ul style="list-style-type: none"> - Strong theoretical knowledge of subject - Ability to communicate the knowledge in an easy to comprehend manner to the students

4.14.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the PSEs or Indian Railways.
- Some of the students want to become entrepreneurs especially in automobile sector so that they can provide employment to other students.
- Students highlighted lack of instructors and old & outdated machinery in the workshop as major barriers in skill development in the institutes. Also, lack of soft skills training has also been identified as a hindrance for many students to get jobs in the open market.
- Students opined that apprenticeship is essential for skill upgrade and Government should encourage apprenticeships with large scale companies.

Youth in Hazaribagh aspire to be entrepreneurs so that they can provide employment to other students along with generating income for self.

Source: Focus Group Discussion, Hazaribagh

Perception of other key stakeholders:

Mr Amrinder Kumar, Manager (DIC, Hazaribagh) told that rice mills & coal based industries are prominent employers in the district and they do not require skilled labour. Lack of employment opportunities is forcing students to migrate to other states/ districts.

4.14.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Mineral Products (iii) Handloom & handicrafts (iv) Textile & garments
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Education & Skill Development

Considering economic and skill landscape of Hazaribagh, the proposed action plan would consist of the following priority areas:

Table 4.150– Recommendations and action points for Hazaribagh & Ramgarh

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Textile & garments - Tourism, hospitality & travel - Education & Skill Development
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Textile & Garments - Tourism, hospitality - Trade - Education & skill development • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like

Stakeholder	Action points
	<ul style="list-style-type: none"> - Trade especially modern trade - Tourism, hospitality & travel - Transportation & logistics - Drivers • Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes • Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income • Focus on supporting creation of micro-enterprises/ ancillaries for minerals sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms • Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Construction - Mineral products industry

4.15 Dumka and Jamtara

Dumka district is located in the northern part of the state and is surrounded by districts of Godda and Pakaur in the north, state of West Bengal in the east, Jamtara district in the south and Deogarh district & state of Bihar in the west. The district is spread over 379.03 thousand hectares which constitutes about 4.76% of total geographical area of Jharkhand. Administratively, the district is divided into 1 subdivision and 10 blocks. The district headquarter is located in Dumka town.

Jamtara district was carved out of Dumka district in 2001. Jamtara district is located in the eastern part of the state and is surrounded by Deogarh & Dumka districts in the north, Giridih & Dhanbad in the west and the State of West Bengal in the east and south. The district is spread over 179.17 thousand hectares which constitutes about 2.25% of total geographical area of Jharkhand. Administratively, the district is divided into 1 subdivision and 6 blocks. The district headquarter is located in Jamtara town.

4.15.1. Demography

Dumka has a population of 13.2 lakhs as of 2011 of which about 6.82 % reside in urban areas³²⁰ which is lower in comparison to the state average. The district is relatively sparsely populated with 300 persons per sq. km. in comparison to the state average of 414³²¹. The district has a higher sex ratio than the state average.

Jamtara has a population of 7.9 lakhs as of 2011 of which about 9.62% reside in urban areas³²² which is lower in comparison to the state average. The district is densely populated with 439 persons per sq. km. in comparison to the state average of 414³²³. The district has a higher sex ratio than the state average.

Table 4.151– Demography of Dumka and Jamtara

Demography	Dumka	Jamtara	Jharkhand
Population (2011)	1321096	790207	3,29,66,238
Decadal Population Growth Rate (2001-11)	19.39	21.00	22.34%
Population density per sq. km (2011)	300	439	414
Sex Ratio (2011)	974	959	947
Percentage of Urban Population (2011)	6.82%	9.62%	24%
Percentage of SC population (2001)	6.05%	9.55%	11.8%
Percentage of ST population (2001)	44.75%	31.64%	26.3%

4.15.2. Economic Profile

Gross District Domestic Product (GDDP) of erstwhile Dumka district has grown at a lower growth rate (CAGR) of 6.17% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period³²⁴. Secondary sector contributes about 38.7% of the GDDP primarily on account of contribution coming from manufacturing activities.

³²⁰ Census of India, 2011

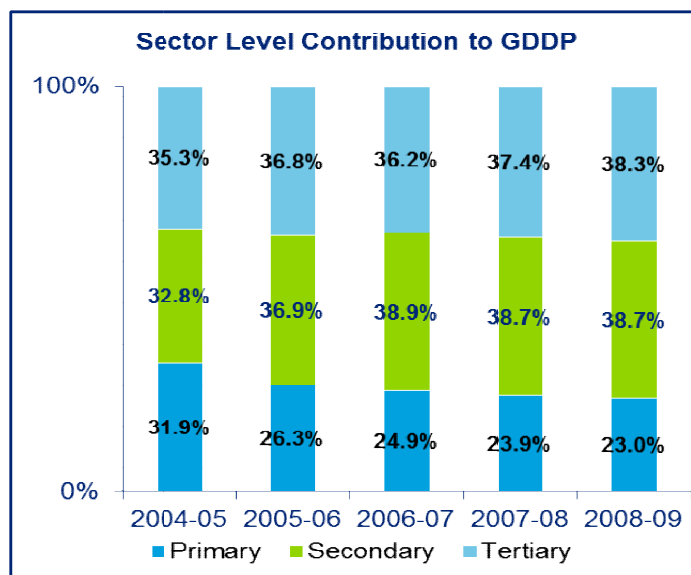
³²¹ Census of India, 2011

³²² Census of India, 2011

³²³ Census of India, 2011

³²⁴ Directorate of Economics and Statistics, Jharkhand

Figure 4.132– Sector level contribution to GDDP of Dumka and Jamtara



Source: Directorate of Economics & Statistics, Jharkhand

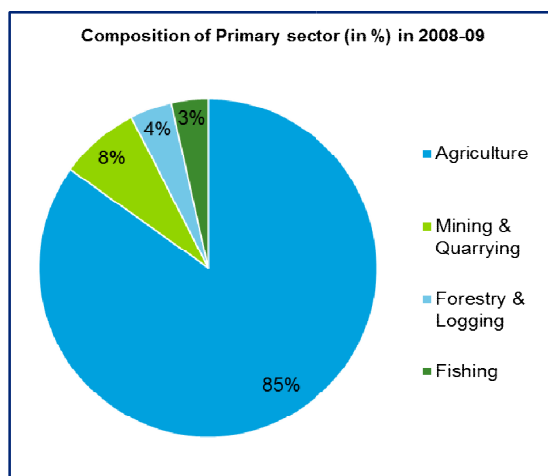
Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 23.02% to the GDDP in 2008-09³²⁵. The percentage contribution of primary sector to the GDDP has seen a decrease in the last few years primarily on account of decrease in agricultural activities.

Figure 4.133– Composition of primary sector of Dumka and Jamtara

Primary Sector – Highlights

- Agro-climatic condition of the district is conducive for cultivation of fruits like mango, guava, jackfruit, & vegetables like onion.
- Potential for floriculture in the district due to sandy loam terrain land and huge demand for flowers on account of existence of temples in and around the district.
- Gopikandar, Kathikund, Masaliya Shikaripara, Raneswar and Sarayahat blocks of the district are engaged in rearing of tassarcocoons on forest land



Source: Directorate of Economics & Statistics, Jharkhand

In the district, net cultivated area is about 31.4 % of the geographic area³²⁶ which is higher than state average. The major crops grown in the district are rice, pulses such as moong, black-gram, pigeon pea and horse gram. Wheat is grown during Rabi season. Feldspar, stone & quartz are three important minerals that are found in Dumka & Jamtara.

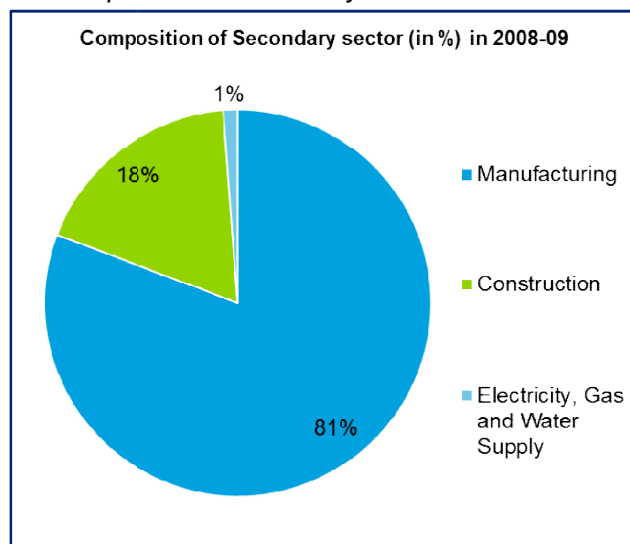
³²⁵ Directorate of Economics and Statistics, Jharkhand

³²⁶ Directorate of Economics and Statistics, Jharkhand

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 38.7%³²⁷. The sector has registered a CAGR of 10.61% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 80.7% of the contribution of the secondary sector to the GDDP.³²⁸

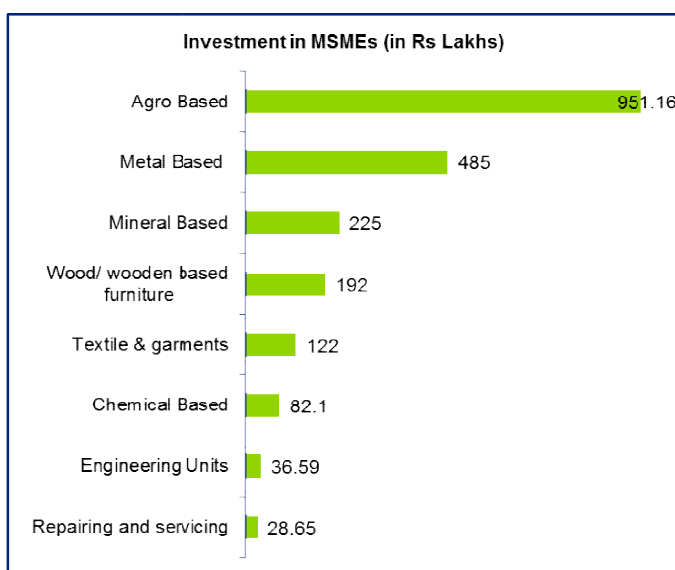
Figure 4.134– Composition of secondary sector of Dumka and Jamtara



Source: Directorate of Economics & Statistics, Jharkhand

Food processing is the main industrial activity in Dumka and contributes about 37% of the industrial output of the district. Dumka and Jamatara districts have one industrial area each of 6.088 and 4.2 hectares respectively. Some of the key industries in which MSMEs in the district operate are agro based; wood/ wooden based furniture; textile & garments; mineral based and metal based products.

Figure 4.135– Investments in MSME sector in Dumka and Jamtara



Source: District Industrial Profile, DC-MSME

³²⁷ Directorate of Economics and Statistics, Jharkhand

³²⁸ Directorate of Economics and Statistics, Jharkhand

Upcoming Investments in Large Scale Industries in Dumka & Jamtara

Some of the key investments are highlighted below:

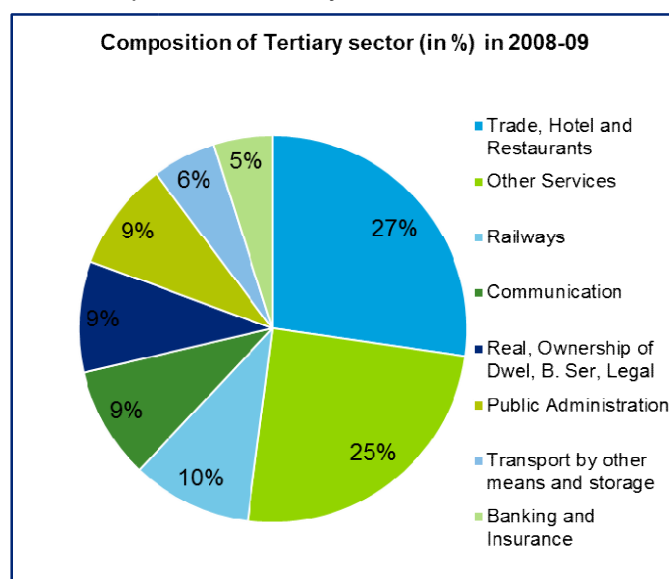
- *Brahmilmpex Ltd. has plans to start an Integrated Steel Plant in Jamtara with an estimated investment of Rs 40,000 million.*

Source: CMIE Database

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 38.3% in 2008-09³²⁹. The sector has registered a CAGR of 8.37% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; public administration and Real Estate services.

Figure 4.136– Composition of tertiary sector of Dumka & Jamtara



Source: Directorate of Economics & Statistics, Jharkhand

Dumka has many places of tourist importance like Baba BasukinathDham, Baba Sumeshwarnath, Masanjore Dam, Tatloi (a hot water spring), and Malooti etc. Trade, hotel & restaurants have grown at a CAGR of 9% during 2001-2009. During the period 2001-09, communication has the fastest growth rate and has grown at a CAGR of about 20%.

Future Growth Opportunities in Dumka & Jamtara

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential.

Table 4.152– Focus sectors and growth opportunities in Dumka and Jamtara

Sector/ Industry	Growth Opportunities
Metal Products	The sector employs about 1/5 th of the industrial workers in the district and is anticipated to have employment opportunities in steel casting, automobile spare parts, metallic utensils, agricultural instruments etc.
Construction	Urbanisation of the district is likely to fuel infrastructure development leading to an increase in construction activities

³²⁹ Directorate of Economics and Statistics, Jharkhand

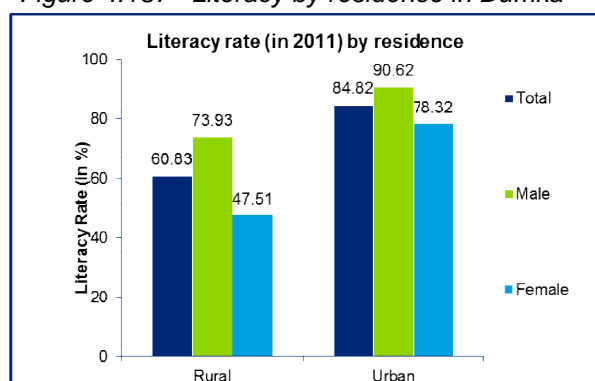
Sector/ Industry	Growth Opportunities
Food Processing	Food processing contributes about 1/3 rd of the district's industrial output and is anticipated to have potential for rice/ dal/ oil/ mushroom processing
Real Estate Services	Growth in construction activities is expected to have a positive effect on the demand of Real Estate services
Handicraft	Handicraft especially wood based products contribute about 16% to the industrial output of the district and has potential for wooden furniture, cane baskets, bamboo baskets etc.
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

4.15.3. Education

Dumka

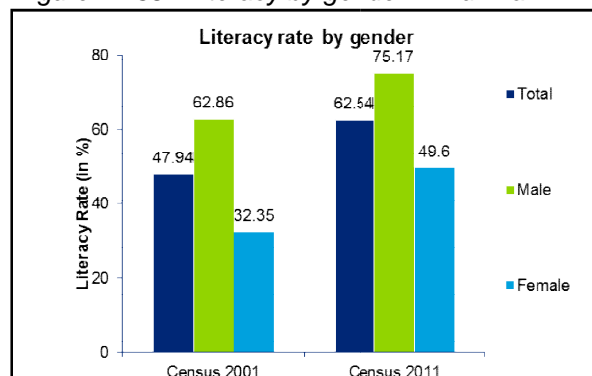
Dumka has a lower literacy rate of 62.54% in comparison to state average of 67.63%³³⁰. It marks a significant improvement over literacy rate of 47.94% in 2001³³¹. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.137– Literacy by residence in Dumka



Source: Census 2011

Figure 4.138– Literacy by gender in Dumka



Source: Census 2001 & 2011

Dumka has 2583 schools with enrolment of about 2.6 lakhs³³² in primary and upper primary. Enrolment in Government schools account for 96.5% of total enrolment. 72.6% of the students attend upper primary schools after primary education. On the other hand Dumka has 92 secondary and higher secondary schools with enrolment of about 0.39 lakhs only.

In terms of vocational training infrastructure, Dumka has one Government Industrial Training Institute, one Government Women Industrial Training Institute and 5 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, electrician, wiremen and machinist whereas most of the private ITCs focus on only two trades – electrician and fitter. Government ITI, Dumka also offers 8 courses under State Council for Vocational Training (SCVT). Women ITI, Dumka offers courses on cutting & tailoring, embroidery & needlework and Stenography.

In addition to ITIs/ITCs, Dumka has one Government polytechnic approved intake of 240 students. The colleges offer diploma programme in electrical, mechanical, computer science and civil engineering.

³³⁰ Census of India, 2011

³³¹ Census of India, 2001

³³² DISE, 2010-11

Table 4.153– Educational infrastructure in Dumka

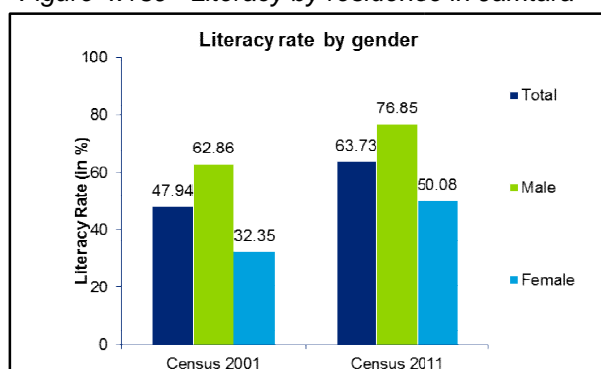
Educational Infrastructure	Number of Institutes 333	Approved Intake	Source
Government Polytechnic	1	240	Department of Science and Technology, Jharkhand
ITIs - Government	2	873	Ministry of Labour, Jharkhand
ITCs - Private	5	1433	Ministry of Labour, Jharkhand

Dumka has significant number of private sector players engaged in skill development. Some of the major players include NIIT, Micro Point Computers etc.

Jamtara

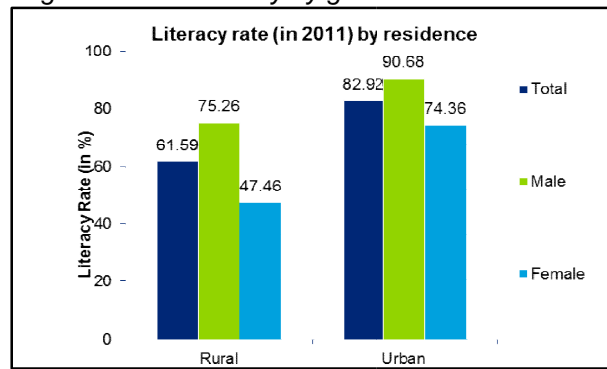
Jamtara has a lower literacy rate of 63.73% in comparison to state average of 67.63%³³⁴. It marks a significant improvement over literacy rate of 47.94% in 2001³³⁵. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.139– Literacy by residence in Jamtara



Source: Census 2011

Figure 4.140– Literacy by gender in Jamtara



Source: Census 2001 & 2011

Jamtara has 1255 schools with enrolment of about 1.49 lakhs³³⁶ in primary and upper primary. Enrolment in Government schools account for 99.1% of total enrolment. 58.2% of the students attend upper primary schools after primary education. On the other hand Jamtara has 47 secondary and higher secondary schools with enrolment of about 0.23 lakhs only.

In terms of vocational training infrastructure, Jamtara has one Government Industrial Training Institute which offers fitter, electrician, wiremen, mechanic and machinist trades under State Council for Vocational Training (SCVT).

Table 4.154– Educational infrastructure in Jamtara

Educational Infrastructure	Number of Institutes 337	Approved Intake	Source
ITIs - Government	1	289	Ministry of Labour, Jharkhand

³³³ Same institute might offer different programs

³³⁴ Census of India, 2011

³³⁵ Census of India, 2001

³³⁶ DISE, 2010-11

³³⁷ Same institute might offer different programs

Jamtara has number of private sector players engaged in skill development. SayIntellicall is engaged in providing call centre training to students.

4.15.4. Employment Profile

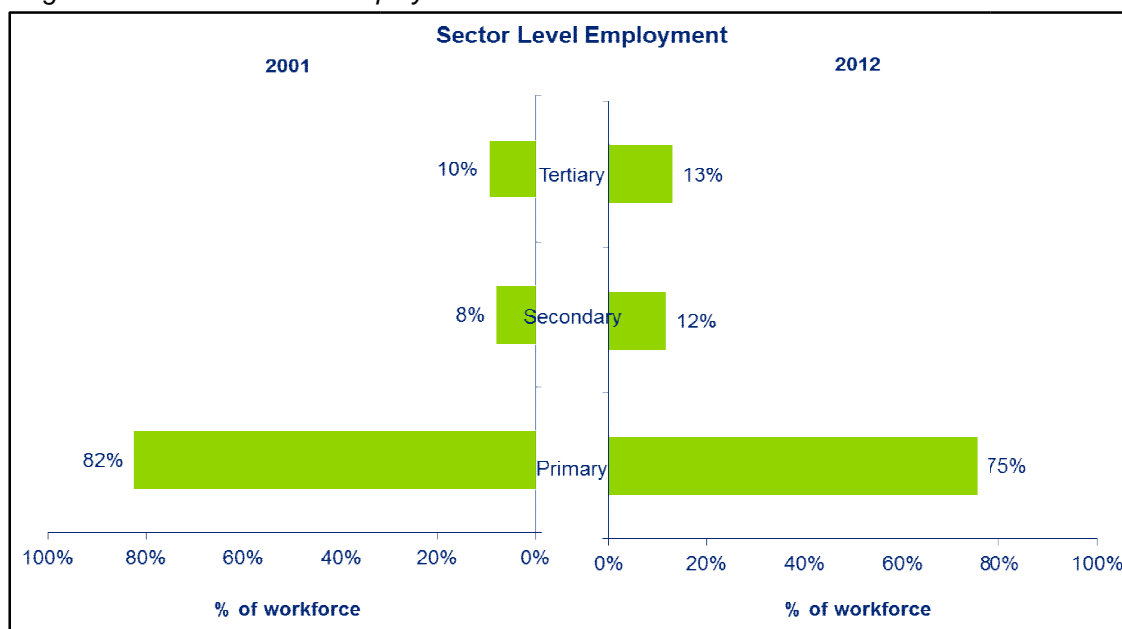
The work participation rate of erstwhile Dumka was 44.2% which is higher than the state average of 37.5%³³⁸. Total workforce is expected to increase to 9.6 lakhs in 2012.

Table 4.155– Employment profile in Dumka and Jamtara

Employment Profile (In Lakhs)	2001 ³³⁹	2012 ³⁴⁰
Total Population	17.6	21.5
Working Age Population	9.7	13.4
Labour Force	7.8	9.9
Workforce	7.7	9.6

About 82% of the workers in erstwhile Dumka district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 75% in 2012 on account of increase in opportunities in secondary and tertiary sectors³⁴¹.

Figure 4.141– Sector level employment in Dumka and Jamtara



4.15.5. Skill Gap Assessment

Dumka

Manpower Supply

³³⁸ Census of India, 2011

³³⁹ Census of 2001

³⁴⁰ Deloitte Analysis

³⁴¹ Deloitte Analysis

The population of Dumka in 2011 was about 13.2 lakhs which is expected to increase to about 14.7 lakhs in 2017 and about 16.05 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.84 lakhs.

Table 4.156– Estimated workforce of Dumka

Estimated Work Force			
	2011	2017	2022
Population	1321096	1469316	1605459
Working age population	823432	946302	1067294
Available Labour Force	620619	713226	804417
Projected Work Force	590673	664126	725677
Incremental manpower supply (2012-22)	183798		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.157– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	2343	2622	4965
Semi-Skilled	10874	8791	19665
Minimally skilled	79390	79778	159168

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 1.34 lakhs including 0.74 lakhs in organized sectors and 0.60lakh in unorganized sectors.

More than half of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, business services and mineral based products. The secondary sector which contributes about 38.7% of the GDDP is expected to continue its growth as about 51% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by fabricated/ structural metal products, travel, food processing and building & construction.

Tertiary sector which contributes about 38.3% % of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, media & entertainment, transportation & logistics and business services.

Table 4.158– Incremental manpower demand in Dumka in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ³⁴²	-	30	262	-	22	191
Mining and Quarrying	-	12	43	-	-	30
Total (I)	-	42	305	-	22	221
Secondary Sector						
Mineral Based Products	26	78	26	22	67	22
Leather and Leather Goods	-	-	124	-	-	108
Automobile/ Auto Component	150	192	85	130	167	74
Textile & Garments	25	50	423	22	43	367
Fabricated/ Structural Metal Products	497	1491	497	431	1294	431
Chemical & Pharmaceuticals	62	104	41	54	90	36
Other Manufacturing	164	274	657	143	238	570
Building and Construction	660	1650	4290	538	1345	3497
Wood / Wooden based furniture	82	82	1480	71	71	1284
Food Processing	360	1081	5763	313	938	5002
Total (II)	2026	5002	13386	1724	4253	11391
Tertiary Sector						
Tourism Hospitality and Travel Trade	3863	3863	1931	3115	3115	1557
Transportation & Logistics/ warehousing/ packaging	165	329	1153	135	270	944
Real Estate Services	895	895	1791	1149	1149	2297
Media & Entertainment	651	586	65	603	543	60
Healthcare Services	129	748	0	23	165	0
Banking Insurance & Finance	588	69	35	583	69	34
Education/ Skill Development Services	702	420	0	638	140	0
Total (III)	6993	6910	4975	6246	5451	4892
Grand Total (I+II+III)	9047	11968	18675	7990	9744	16512
Total Incremental Demand	73937					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.6 lakhs in the next 10 years.

Table 4.159– Incremental manpower demand in Dumka in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	26809	19604
Drivers	702	803
Others	5786	6402
Total	33297	26809
Total Incremental Demand – Unorganized Sectors	60106	

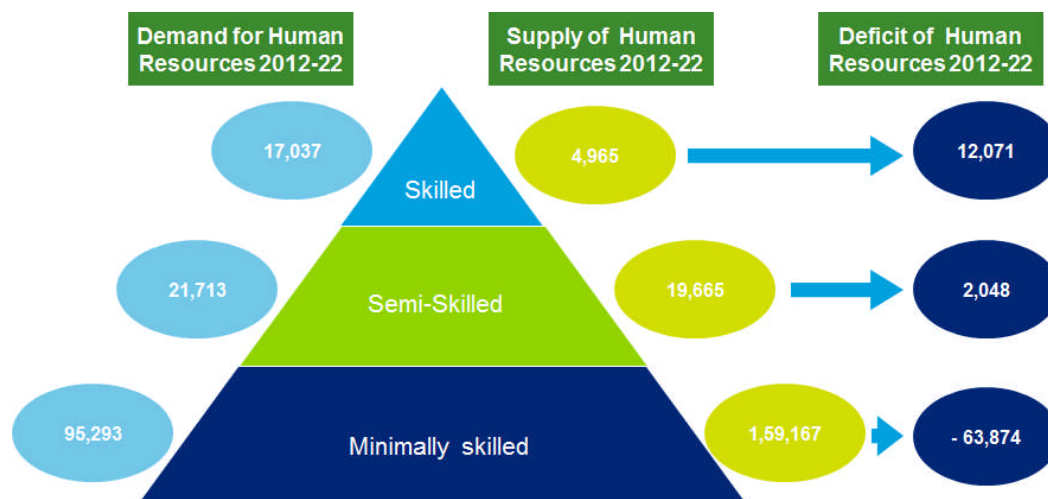
³⁴² Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.5 lakhs.³⁴³

Figure 4.142– Incremental manpower gap in Dumka



Jamtara

Manpower Supply

The population of Jamtara in 2011 was about 7.9 lakhs which is expected to increase to about 8.86 lakhs in 2017 and about 9.75 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.17 lakhs.

Table 4.160– Estimated workforce of Jamtara

Estimated Work Force			
	2011	2017	2022
Population	790207	1469316	1605459
Working age population	502010	946302	1067294
Available Labour Force	620619	713226	804417
Projected Work Force	590673	664126	725677
Incremental manpower supply (2012-22)	117080		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.161– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	2343	2622	4965
Semi-Skilled	10874	8791	19665
Minimally skilled	79390	79778	159168

³⁴³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.8 lakhs including 0.44 lakhs in organized sectors and 0.36 lakhs in unorganized sectors.

More than half of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, business services and mineral based products. The secondary sector which contributes about 38.7% of the GDDP is expected to continue its growth as about 51% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by fabricated/ structural metal products, travel, food processing and building & construction.

Tertiary sector which contributes about 38.3% % of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, media & entertainment, transportation & logistics and business services.

Table 4.162– Incremental manpower demand in Jamtara in organized sectors

Incremental Demand –		2012-17			2017-2022		
Organized sectors		Skilled	Semi-Skilled	Minimally	Skilled	Semi-Skilled	Minimally
Primary Sector							
Agriculture & allied activities ³⁴⁴	-	18	157	-	13	115	
Mining and Quarrying	-	7	26	-	-	18	
Total (I)	-	25	183	-	13	133	
Secondary Sector							
Mineral Based Products	15	46	15	13	40	13	
Leather and Leather Goods	4	4	74	4	4	64	
Automobile/ Auto Component	89	115	51	78	100	44	
Textile & Garments	15	30	253	13	26	219	
Fabricated/ Structural Metal Products	297	892	297	258	774	258	
Chemical & Pharmaceuticals	37	62	25	32	54	22	
Other Manufacturing	98	164	393	85	142	341	
Building and Construction	395	987	2566	322	805	2092	
Wood / Wooden based furniture	49	49	885	43	43	768	
Food Processing	215	646	3447	187	561	2992	
Total (II)	1214	2995	8006	1035	2549	6813	
Tertiary Sector							
Tourism Hospitality and Travel Trade	2310	2310	1155	1863	1863	932	
Transportation & Logistics/ warehousing/ packaging	99	197	690	81	161	564	
Real Estate Services	536	536	1071	687	687	1374	
Media & Entertainment	389	351	39	361	325	36	
Healthcare Services	77	447	0	14	98	0	
Banking Insurance & Finance	352	41	21	349	41	21	
Education/ Skill Development Services	420	251	0	382	84	0	
Total (III)	4183	4133	2976	3737	3259	2927	
Grand Total (I+II+III)	5411	7159	11170	4779	5829	9877	
Total Incremental Demand				44225			

³⁴⁴ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.36 lakhs in the next 10 years.

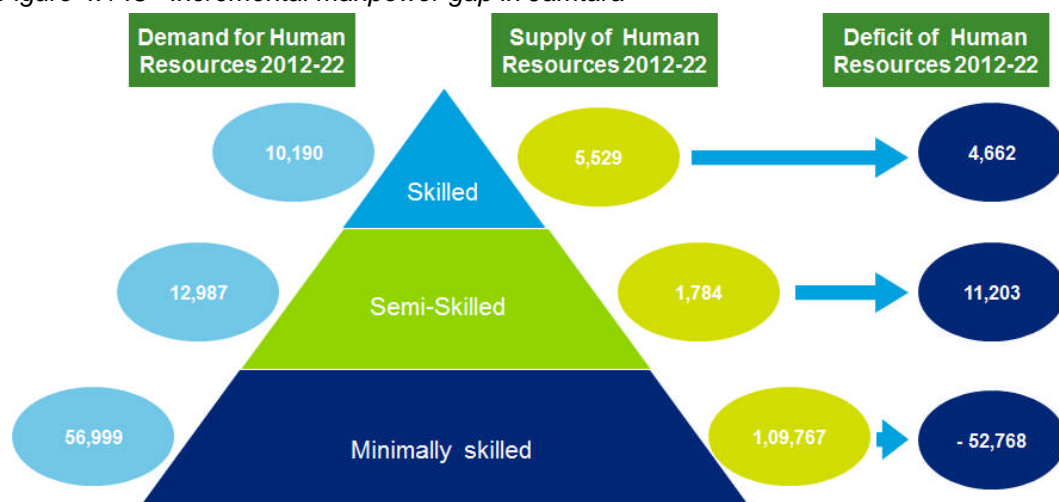
Table 4.163– Incremental manpower demand in Jamtara in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	16036	11726
Drivers	420	480
Others	3461	3829
Total	19916	16036
Total Incremental Demand – Unorganized Sectors	35952	

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.37 lakhs.³⁴⁵

Figure 4.143– Incremental manpower gap in Jamtara



Qualitative Skill Gaps

Table 4.164– Qualitative skill gaps in high demand sectors in Dumka and Jamtara

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc.

³⁴⁵ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
		<ul style="list-style-type: none"> - Inadequate safety orientation - Inability to understand and follow simple instructions
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Trade	Shopkeeper	<ul style="list-style-type: none"> - Inadequate knowledge of transaction processing - Inadequate soft skills
	Sales person	<ul style="list-style-type: none"> - Inadequate product specific knowledge - Inadequate communication skills - Inadequate understanding of various schemes
Metallic Products	Workmen	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques

4.15.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get a secure job especially in Indian Railways or large private companies.
- Students highlighted that lack of basic infrastructure like blackboard in the institutes was a major challenge. Students also highlighted that apprenticeship is very important for skill development.
- Some of the students aspire to be instructors in ITIs as they feel that one of the key issues for poor vocational training is lack of quality instructors.

Youth in Dumka feel that apprenticeship is very important for skill development.

Source: Focus Group Discussion, Dumka

4.15.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Metallic Products (iii) Handicraft (iv) Food Processing
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Real Estate Services (iii) Transportation & Logistics

Considering economic and skill landscape of the district, the proposed action plan would consist of the following priority areas:

Table 4.165– Recommendations and action points for Dumka and Jamtara

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Food processing - Real estate services - Tourism, hospitality & travel
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Metallic products - Tourism, hospitality & travel • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Food processing - Tourism, hospitality & travel - Transportation & logistics – Drivers - Communication • Focus on developing communication & basic IT skills of the students

Stakeholder	Action points
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes • Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income • Focus on supporting creation of micro-enterprises/ ancillaries for metal sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms • Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Construction - Metal products industry

4.16 Gumla and Simdega

Gumla district is located in the southern part of the state and is surrounded by the state of Chhattisgarh in the west, the districts of Latehar and Lohardaga in the north, Ranchi & Khunti in the east and Simdega in the south. The district is spread over 538.92 thousand hectares which constitutes about 6.76% of total geographical area of Jharkhand. Administratively, the district is divided into 1 subdivision and 12 blocks. The district headquarter is located in Gumla town.

Simdega district was carved out of erstwhile Simdega district in 2001. Simdega district is located in the southern part of the state and is surrounded the state of Chhattisgarh in the west, the state of Odisha in the south, the districts of Gumla in the north & Khunti and West Singhbhum in the east. The district is spread over 371.63 thousand hectares which constitutes about 4.66% of total geographical area of Jharkhand. Administratively, the district is divided into 10 blocks. The district headquarter is located in Simdega town.

4.16.1. Demography

Gumla has a population of 10.26 lakhs as of 2011 of which about 6.43% reside in urban areas³⁴⁶ which is lower in comparison to the state average. The district is very sparsely populated with only 193 persons per sq. km. in comparison to the state average of 414³⁴⁷. The district has a much higher sex ratio than the state average.

Simdega has a population of 5.99 lakhs as of 2011 of which about 7.16% reside in urban areas³⁴⁸ which is lower in comparison to the state average. Like Gumla, the district is also very sparsely populated with only 160 persons per sq. km. in comparison to the state average of 414³⁴⁹. The district has much higher sex ratio than the state average.

Table 4.166– Demography of Gumla & Simdega

Demography	Gumla	Simdega	Jharkhand
Population (2011)	10,25,656	5,99,813	3,29,66,238
Decadal Population Growth Rate (2001-11)	23.21%	16.62%	22.34%
Population density per sq. km (2011)	193	160	414
Sex Ratio (2011)	993	1000	947
Percentage of Urban Population (2011)	6.43%	7.16%	24%
Percentage of SC population (2001)	3.25%	7.71%	11.8%
Percentage of ST population (2001)	67.24%	70.16%	26.3%

4.16.2. Economic Profile

Gross District Domestic Product (GDDP) of erstwhile Gumla district has grown at a much lower growth rate (CAGR) of 3.77% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period³⁵⁰. Primary sector contributes about 41.8% of the GDDP primarily on account of contribution of agriculture.

³⁴⁶ Census of India, 2011

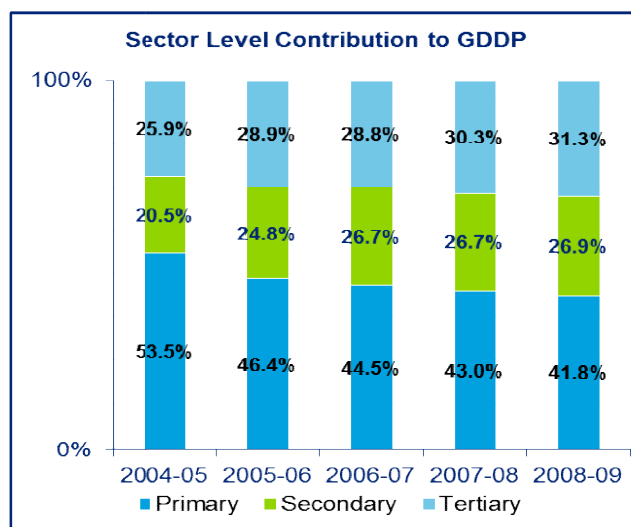
³⁴⁷ Census of India, 2011

³⁴⁸ Census of India, 2011

³⁴⁹ Census of India, 2011

³⁵⁰ Directorate of Economics and Statistics, Jharkhand

Figure 4.144– Sector level contribution to GDDP of Gumla & Simdega

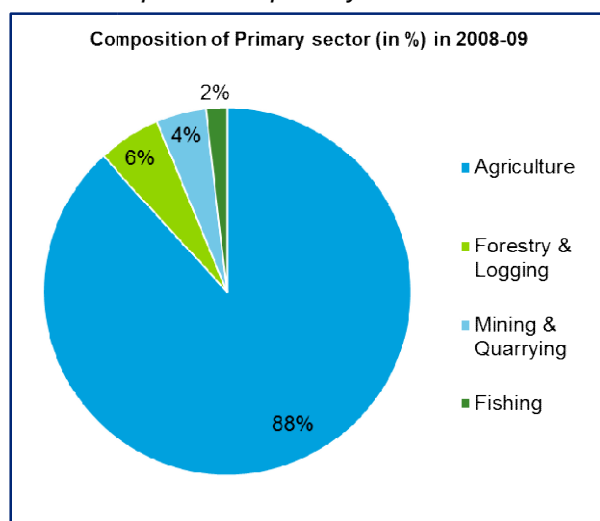


Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 41.8% to the GDDP in 2008-09³⁵¹. The percentage contribution of primary sector to the GDDP has seen a decrease due to decrease in contribution of agriculture during 2005-09.

Figure 4.145– Composition of primary sector of Gumla & Simdega



Source: Directorate of Economics & Statistics, Jharkhand

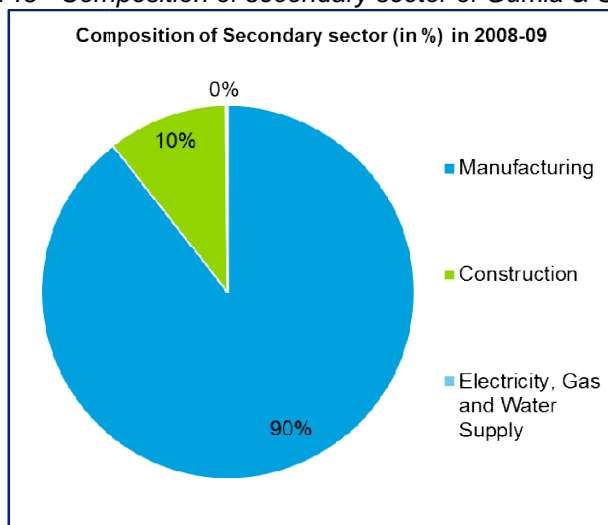
The main crop is paddy followed by millet, mustard, maize, wheat, gram, peas, soybean, groundnut etc. The main mineral resources found in Simdega district are limestone and stone chips. In Gumla district minerals like Bauxite and Laterite (Aluminium ore) are found in abundance. There are 23 Bauxite mines and 68 Stone mines in Gumla district. Important forest products from the district are Saal seeds, Cocoon, Lac, Tendu leaves, Karanj, Chiraunji etc.

³⁵¹ Directorate of Economics and Statistics, Jharkhand

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 26.9%³⁵². The sector has registered a CAGR of 10.99% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 90% of the contribution of the secondary sector to the GDDP.³⁵³

Figure 4.146– Composition of secondary sector of Gumla & Simdega

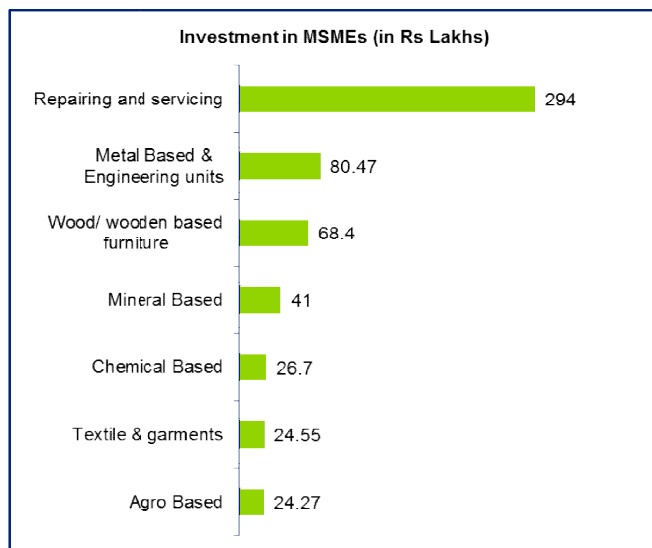


Source: Directorate of Economics & Statistics, Jharkhand

Gumla has a predominantly mineral based industry. While non-metallic mineral industry contributes about 27% of the industrial product value in the district, about 45% of the industrial workforce is engaged in metallic sector.

Gumla district has one industrial area of 6.216 hectares, while no industrial area exists in Simdega district. Some of the key industries in which MSMEs in the district operate are agro based; wood/ wooden based furniture; chemical/ chemical based; mineral based and metal based products.

Figure 4.147– Investments in MSME sector in Gumla & Simdega



Source: District Industrial Profile, MSME DI

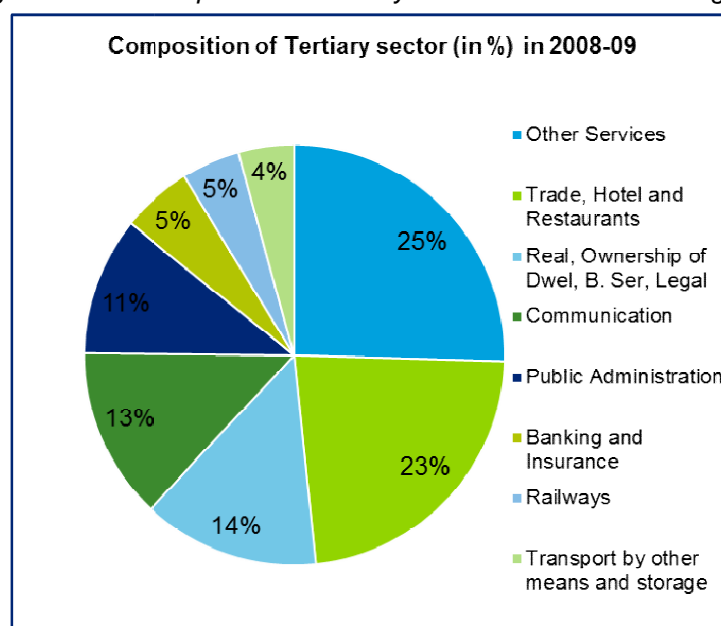
³⁵² Directorate of Economics and Statistics, Jharkhand

³⁵³ Directorate of Economics and Statistics, Jharkhand

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 31.3% in 2008-09³⁵⁴. The sector has registered a CAGR of 8.76% between 2004-05 and 2008-09. Key contributors to the sector include other services, trade, hotel and restaurants and real estate services & business services.

Figure 4.148– Composition of tertiary sector of Gumla & Simdega



Source: Directorate of Economics & Statistics, Jharkhand

Education and healthcare are two important sectors in Gumla & Simdega districts. The districts have 2 district hospitals, 20 Primary Health Centre (PHC) and 397 Health Sub Centre (HSC). Simdega has some popular tourist locations such as Kelaghagh dam, Ram rekhadham, Dangadi, KetungaDham and Rajadera.

Future Growth Opportunities in Gumla & Simdega

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.167– Focus sectors and growth opportunities in Gumla & Simdega

Sector/ Industry	Growth Opportunities
Metal Products	Metal product based industry is currently the largest employer of industrial workers in the district & is expected to remain so in the near future.
Food Processing	Agriculture has the highest share in primary sector and about 15% of the industrial workers are engaged in food processing.
Construction	Expansions and investments in the manufacturing sector is likely to fuel infrastructure development leading to an increase in construction activities
Real Estate & Business Services	Growth in secondary sector is expected to have a positive effect on the demand of real estate & business services
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

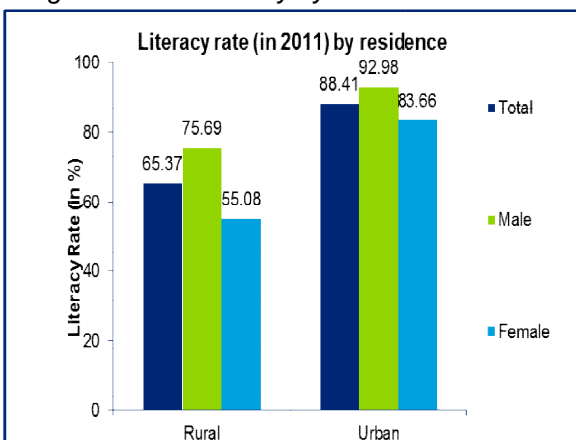
³⁵⁴ Directorate of Economics and Statistics, Jharkhand

4.16.3. Education

Gumla

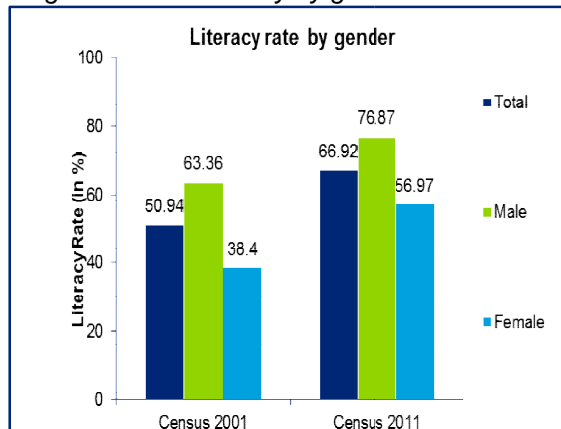
Gumla has a lower literacy rate of 66.92% in comparison to state average of 67.63%³⁵⁵. It marks a significant improvement over literacy rate of 50.94% in 2001³⁵⁶. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.149– Literacy by residence in Gumla



Source: Census 2011

Figure 4.150– Literacy by gender in Gumla



Source: Census 2001 & 2011

Gumla has 1906 schools with enrolment of about 2.2 lakhs³⁵⁷ in primary and upper primary. Enrolment in Government schools account for 76.4% of total enrolment. 82.9% of the students attend upper primary schools after primary education. On the other hand Gumla has 89 secondary and higher secondary schools with enrolment of about 0.33 lakhs only.

In terms of vocational training infrastructure, Gumla has one Government Industrial Training Institute. Major trades offered in the Government ITI are fitter, electrician, wiremen and machinist all of which are under State Council for Vocational Training (SCVT).

Table 4.168– Educational infrastructure in Gumla

Educational Infrastructure	Number of Institutes ³⁵⁸	Approved Intake	Source
ITIs - Government	1	289	Ministry of Labour, Jharkhand

Gumla has a number of private sector players engaged in skill development. Some of the players include Whitehat IITS Pvt Ltd and Call Impact.

Simdega

Simdega has almost similar literacy rate of 67.59% in comparison to state average of 67.63%³⁵⁹. It marks a significant improvement over literacy rate of 53.02% in 2001³⁶⁰. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

³⁵⁵ Census of India, 2011

³⁵⁶ Census of India, 2001

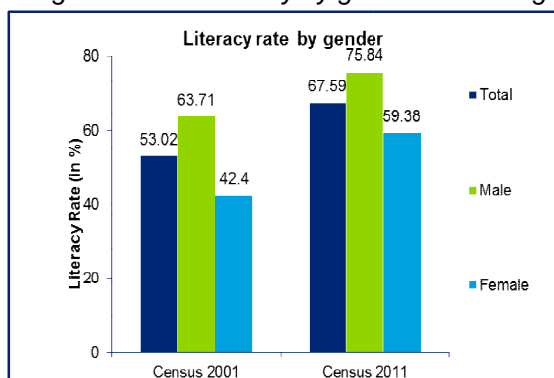
³⁵⁷ DISE, 2010-11

³⁵⁸ Same institute might offer different programs

³⁵⁹ Census of India, 2011

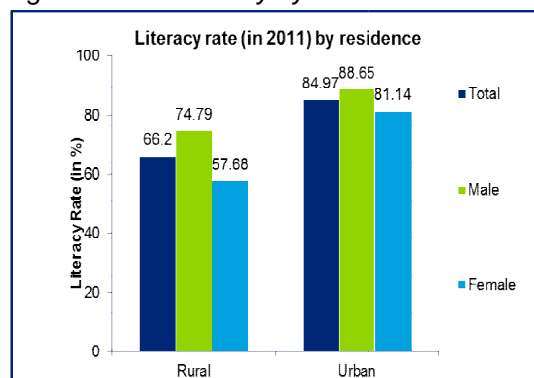
³⁶⁰ Census of India, 2001

Figure 4.151– Literacy by gender in Simdega



Source: Census 2011

Figure 4.152– Literacy by residence in Simdega



Source: Census 2001 & 2011

Simdega has 1187 schools with enrolment of about 1.29 lakhs³⁶¹ in primary and upper primary. Enrolment in Government schools account for 58.5% of total enrolment. 85.1% of the students attend upper primary schools after primary education. On the other hand Simdega has 95 secondary and higher secondary schools with enrolment of about 0.26 lakhs only.

In terms of vocational training infrastructure, Simdega has one Government Industrial Training Institute and one private Industrial Training centres (ITC). Major trades offered in the Government ITI are fitter, electrician, wiremen and machinist (all under State Council for Vocational Training, SCVT) whereas the private ITC focus on only one trade –fitter.

Table 4.169– Educational infrastructure in Simdega

Educational Infrastructure	Number of Institutes ³⁶²	Approved Intake	Source
ITIs - Government	1	133	Ministry of Labour, Jharkhand
ITCs - Private	1	42	Ministry of Labour, Jharkhand

4.16.4. Employment Profile

The work participation rate of erstwhile Gumla was 48.9% which is slightly higher than the state average of 37.5%³⁶³. Total workforce is expected to increase to 7.9 lakhs in 2012.

Table 4.170– Employment profile in Gumla & Simdega

Employment Profile (In Lakhs)	2001 ³⁶⁴	2012 ³⁶⁵
Total Population	13.46	16.56
Working Age Population	7.15	9.97
Labour Force	6.87	8.12
Workforce	6.56	7.91

³⁶¹ DISE, 2010-11

³⁶² Same institute might offer different programs

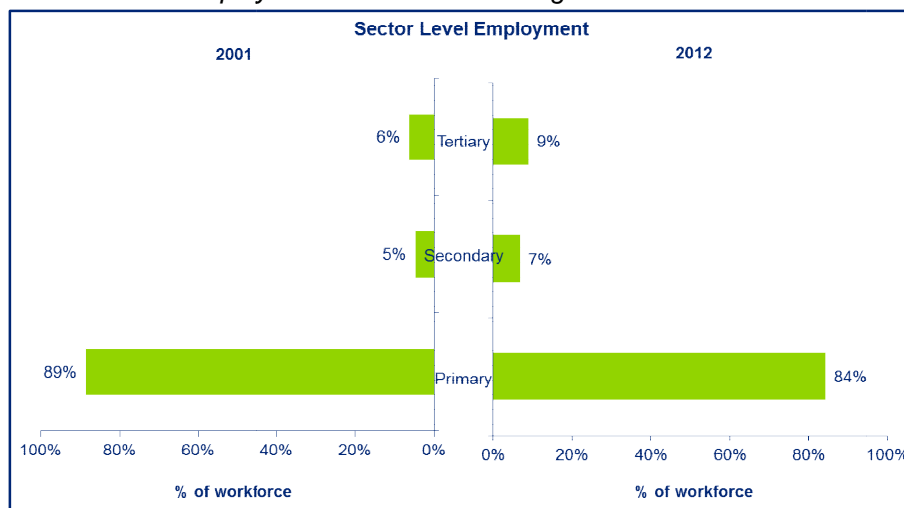
³⁶³ Census of India, 2011

³⁶⁴ Census of 2001

³⁶⁵ Deloitte Analysis

About 89% of the workers in Gumla district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 84% in 2012 on account of increase in opportunities in secondary and tertiary sectors³⁶⁶.

Figure 4.153– Sector level employment in Gumla & Simdega



4.16.5. Skill Gap Assessment

Gumla

Manpower Supply

The population of Gumla in 2011 was about 10.25 lakhs which is expected to increase to about 11.62 lakhs in 2017 and about 12.90 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.70 lakhs.

Table 4.171– Estimated workforce of Gumla

Estimated Work Force			
	2011	2017	2022
Population	1025656	1162490	1290364
Working age population	617080	721878	826229
Available Labour Force	502827	588222	673252
Projected Work Force	491668	536267	571482
Incremental manpower supply (2012-22)	170425		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.172– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	4126	4858	8984
Semi-Skilled	1293	867	2160
Minimally skilled	79976	79305	159281

³⁶⁶ Deloitte Analysis

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.79 lakhs including 0.28 lakhs in organized sectors and 0.51 lakh in unorganized sectors. About 65% of the incremental manpower demand is expected to come from unorganized sector. Incremental manpower demand in organized sector is anticipated to come primarily from building & construction, tourism, travel & trade, real estate, food processing and metal based products. The secondary sector which contributes about 26.8% of the GDDP is expected to continue its growth as about 45% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by metal based products, handicrafts and building & construction. Tertiary sector which contributes about 31.3% of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, communication & media/entertainment, transportation & logistics and business services.

Table 4.173– Incremental manpower demand in Gumla in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally	Skilled	Semi-Skilled	Minimally
Primary Sector						
Agriculture & allied activities ³⁶⁷	-	28	243	-	20	177
Mining and Quarrying	16	32	114	12	24	85
Total (I)	16	60	357	12	44	262
Secondary Sector						
Mineral Based Products	54	163	54	45	134	45
Leather and Leather Goods	-	-	24	-	-	20
Textile & Garments	-	-	50	-	-	41
Metallic Products	537	1612	537	443	1330	443
Chemical & Pharmaceuticals	19	32	13	16	27	11
Other Manufacturing	88	147	354	73	122	292
Building and Construction	126	314	817	95	237	616
Food Processing	45	134	714	37	110	589
Handicraft & Wood based furniture	58	58	1053	48	48	869
Automobile/ Auto components	65	84	37	54	69	31
Total (II)	992	2544	3653	811	2077	2957
Tertiary Sector						
Tourism Hospitality and Travel Trade	1364	1364	682	1032	1032	516
Transportation & Logistics/ warehousing/ packaging	55	110	385	45	89	313
Real Estate Services	386	386	773	382	382	764
Media & Entertainment	386	347	39	330	297	33
Healthcare Services	89	612	0	19	133	0
Banking Insurance & Finance	271	32	16	243	29	14
Education/ Skill Development Services	551	260	0	493	-	0
Total (III)	3102	3111	1895	2544	1962	1640
Grand Total (I+II+III)	4125	5724	5905	3377	4101	4861
Total Incremental Demand	28093					

³⁶⁷ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.51 lakhs in the next 10 years.

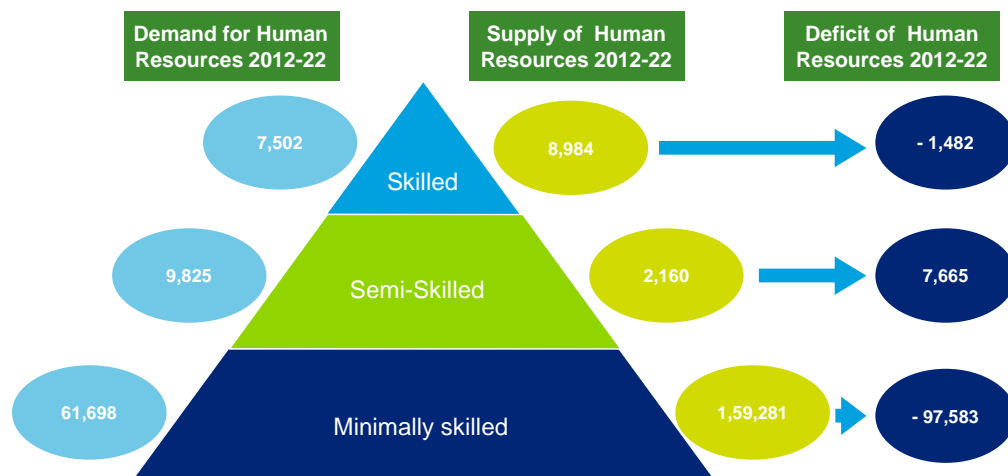
Table 4.174– Incremental manpower demand in Gumla in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	24847	18170
Drivers	270	359
Others	3289	3998
Total	28406	22526
Total Incremental Demand – Unorganized Sectors	50932	

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.91 lakhs.³⁶⁸

Figure 4.154– Incremental manpower gap in Gumla



Simdega

Manpower Supply

The population of Simdega in 2011 was about 6 lakhs which is expected to increase to about 6.58 lakhs in 2017 and about 7.10 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 0.77 lakhs.

Table 4.175– Estimated workforce of Simdega

Estimated Work Force			
	2011	2017	2022
Population	599813	657778	710340
Working age population	360874	408464	454835
Available Labour Force	294058	332837	370622
Projected Work Force	287532	313614	334208
Incremental manpower supply (2012-22)	76564		

³⁶⁸The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.176– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	656	762	1418
Semi-Skilled	1501	1128	2629
Minimally skilled	36623	35895	72518

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.46 lakhs including 0.16 lakhs in organized sectors and 0.30 lakhs in unorganized sectors.

About 65% of the incremental manpower demand is expected to come from unorganized sector. Incremental manpower demand in organized sector is anticipated to come primarily from building & construction, tourism, travel & trade, real estate, food processing and metal based products. The secondary sector which contributes about 26.8% of the GDDP is expected to continue its growth as about 45% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by metal based products, handicrafts and building & construction.

Tertiary sector which contributes about 31.3% % of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, communication & media/ entertainment, transportation & logistics and business services.

Table 4.177– Incremental manpower demand in Simdega in organized sectors

Incremental Organized sectors	Demand	–	2012-17			2017-2022		
Sectors			Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector								
Agriculture & allied activities ³⁶⁹	-		16	142	-	12		104
Mining and Quarrying	-		19	66	-	14		50
Total (I)	-		35	208	-	26		154
Secondary Sector								
Mineral Based Products	32		95	32	26	78		26
Leather and Leather Goods	-		-	14	-	-		12
Textile & Garments	-		-	29	-	-		24
Metallic Products	314		943	314	259	778		259
Chemical & Pharmaceuticals	11		19	-	-	16		-
Other Manufacturing	52		86	207	43	71		171
Building and Construction	74		184	478	55	139		360
Food Processing	26		78	418	22	65		345
Handicraft & Wood based furniture	34		34	616	28	28		508
Automobile/ Auto components	38		49	22	31	40		18
Total (II)	581		1488	2130	464	1215		1723
Tertiary Sector								
Tourism Hospitality and Travel Trade	798		798	399	604	604		302
Transportation & Logistics/ warehousing/ packaging	32		64	225	26	52		183
Real Estate Services	226		226	452	223	223		447
Media & Entertainment	226		203	23	193	174		19
Healthcare Services	52		358	0	11	78		0
Banking Insurance & Finance	158		19	9	142	17		8
Education/ Skill Development Services	322		152	0	288	5		0
Total (III)	1814		1820	1108	1487	1153		959
Grand Total (I+II+III)	2413		3348	3453	1975	2398		2843
Total Incremental Demand	16429							

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.30 lakhs in the next 10 years.

Table 4.178– Incremental manpower demand in Simdega in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	14531	10626
Drivers	158	210
Others	1923	2338
Total	16612	13174
Total Incremental Demand – Unorganized Sectors		29786

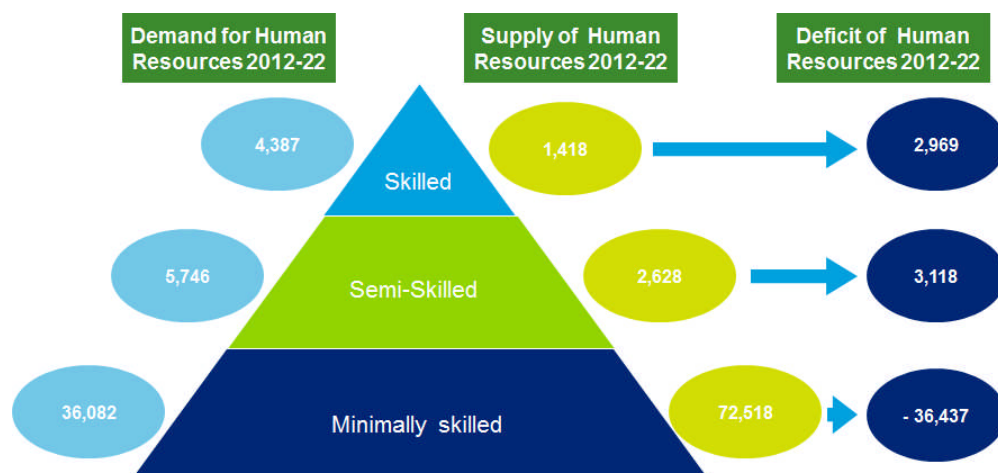
³⁶⁹ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.30 lakhs.³⁷⁰

Figure 4.155– Incremental manpower gap in Simdega



Qualitative Skill Gaps

Table 4.179– Qualitative skill gaps in high demand sectors in Gumla & Simdega

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills

³⁷⁰ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills
Metal Products	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian metallic segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Food Processing	Procurement Executive	<ul style="list-style-type: none"> - Inadequate knowledge of different dialects - Lack of knowledge to forecast demand
	Operator	<ul style="list-style-type: none"> - Inadequate understanding of machine controls - Lack of knowledge of production planning - Inadequate communication skills
	Quality Controller	<ul style="list-style-type: none"> - Inadequate knowledge of sampling techniques

4.16.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the PSEs or Indian Railways.
- Though students prefer to find employment in the district, lack of employment opportunities forces them to migrate to other district/ states in search of employment.

Youth of Gumla district highlighted that that availability quality coaching/ training would help them to become better technicians.

Source: Focus Group Discussion, Gumla

- Most of students were of the opinion that availability of quality coaching/ training would help them to become better technicians.
- Some of the students want to pursue higher education like B.Tech; while others were interested in starting their own business.

4.16.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Metal Products & (iii) Food Processing
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Real Estate Services & Business Services (iii) Healthcare services

Considering economic and skill landscape of the district, the proposed action plan would consist of the following priority areas:

Table 4.180– Recommendations and action points for Gumla & Simdega

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Food Processing - Tourism, hospitality & travel - Building & Construction - Healthcare Services
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate & business services - Food Processing - Healthcare - Skill development & education • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Communication - Tourism, hospitality & travel - Transportation & logistics - Drivers • Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes • Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income • Focus on supporting creation of micro-enterprises/ ancillaries for metallic

Stakeholder	Action points
	products sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms • Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Food Processing - Metallic products industry

4.17 West Singhbhum & Seraikela Kharsawan

Paschimi Singhbhum (West Singhbhum) district is located in the southern part of the state and is surrounded by districts Khunti & Seraikela Kharsawan in the north, state of Odisha in east and south, and Simdega district in west. The district is spread over 562.7 thousand hectares which constitutes about 7.06% of total geographical area of Jharkhand. Administratively, the district is divided into 3 subdivisions and 18 blocks. The district headquarter is located in Chaibasa.

Seraikela Kharsawan district was carved out of West Singhbhum district in 2001. Seraikela Kharsawan district is located in the southern part of the state and is surrounded by state of West Bengal & Ranchi district in north, East Singhbhum district in the east, state of Odisha and West Singhbhum district in the south and West Singhbhum district and Khunti in the west. The district is spread over 237.23 thousand hectares which constitutes about 2.97% of total geographical area of Jharkhand. Administratively, the district is divided into 9 blocks. The district headquarter is located in Seraikela town.

4.17.1. Demography

West Singhbhum has a population of 15.02 lakhs as of 2011 of which about 14.53% reside in urban areas³⁷¹ which is lower in comparison to the state average. The district is very sparsely populated with 209 persons per sq. km. in comparison to the state average of 414³⁷². The district has higher sex ratio than the state average.

Seraikela Kharsawan has a population of 10.63 lakhs as of 2011 of which about 24.29% reside in urban areas³⁷³ which is slightly higher in comparison to the state average. The district is relatively sparsely populated with 390 persons per sq. km. in comparison to the state average of 414³⁷⁴. The district has a higher sex ratio than the state average.

Table 4.181– Demography of West Singhbhum & Saraikela

Demography	West Singhbhum	Seraikela Kharsawan	Jharkhand
Population (2011)	15,01,619	10,63,458	3,29,66,238
Decadal Population Growth Rate (2001-11)	21.69%	25.28%	22.34%
Population density per sq. km (2011)	209	390	414
Sex Ratio (2011)	1004	958	947
Percentage of Urban Population (2011)	14.53%	24.29%	24%
Percentage of SC population (2001)	4.8%	5.1%	11.8%
Percentage of ST population (2001)	65.4%	35.9%	26.3%

4.17.2. Economic Profile

Gross District Domestic Product (GDDP) of erstwhile West Singhbhum district has grown at a higher growth rate (CAGR) of 7.05% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period³⁷⁵. Secondary sector contributes about 39.9% of the GDDP primarily on account of contribution coming from manufacturing activities.

³⁷¹ Census of India, 2011

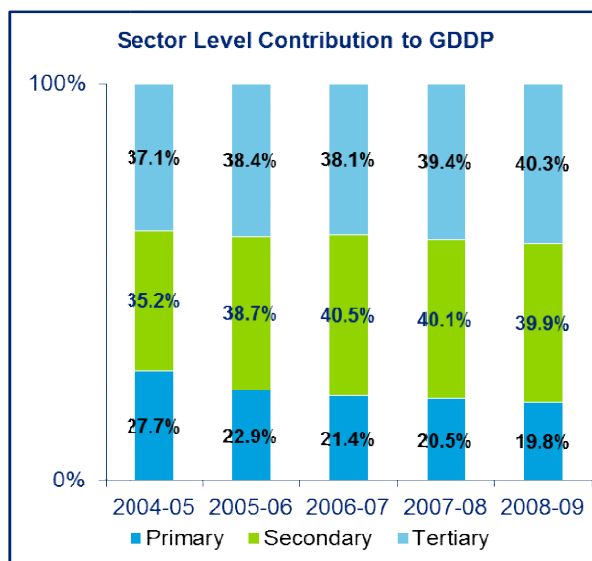
³⁷² Census of India, 2011

³⁷³ Census of India, 2011

³⁷⁴ Census of India, 2011

³⁷⁵ Directorate of Economics and Statistics, Jharkhand

Figure 4.156– Sector level contribution to GDDP of West Singhbhum & Saraikela



Source: Directorate of Economics & Statistics, Jharkhand

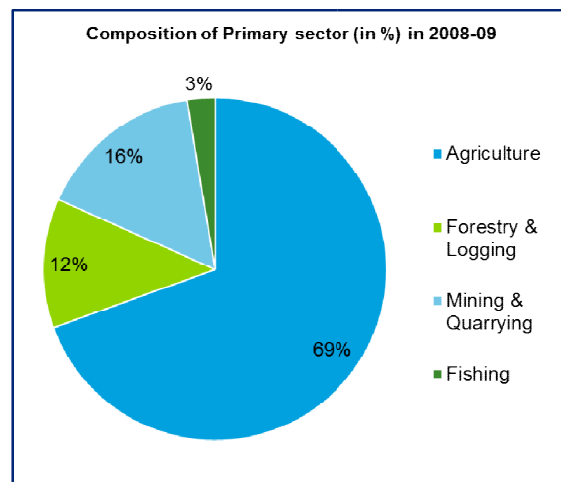
Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 19.8% to the GDDP in 2008-09³⁷⁶. The percentage contribution of primary sector to the GDDP has seen a decrease in the last few years primarily on account of decrease in contribution of agriculture.

Figure 4.157– Composition of primary sector of West Singhbhum & Saraikela

Primary Sector Highlights

- In West Singhbhum district, dairy has huge potential in Chakradharpur, Sonua, Manoharpur, Jagannathpur, Tantnagar and Chaibasa blocks.
- West Singhbhum district has vast inland water resources in the form of tanks, ponds and reservoirs for development of aquaculture.
- The district offers potential in the agro processing sector (flour mill, dal mill, bakery, jam and jelly) along with processing of dairy, meat and fish products.



Source: Directorate of Economics & Statistics, Jharkhand

Paddy and Maize are the main crops in the district. The agro-climatic condition of the district is suitable for cultivation of fruits such as mango, guava, jack fruit and vegetables like cauliflower, tomato etc. Vegetable cultivation clusters have emerged in Chakradharpur, Manoharpur, Nuamundi and Majhgaon blocks in the district. Women in silk production Kendra Bharbhariya, Chakardharpur and Jagannathpur are trained to grow mulberry and raise the silk cocoons at Sulabh Kendra. The women are also involved in production of Tasar fiber which is purchased by JHARCRAFT, Ranchi.

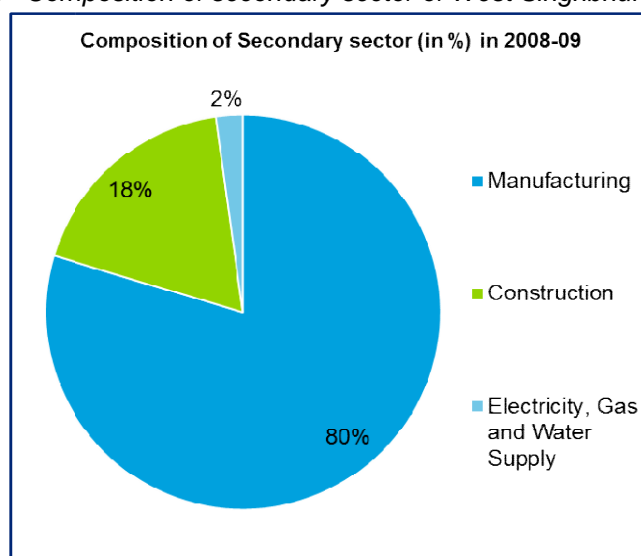
³⁷⁶ Directorate of Economics and Statistics, Jharkhand

Iron ore and Lime stone are produced in West Singhbhum district. SAIL, Bihar Sponge Iron Ltd. etc. are undertaking iron ore mine expansion to increase iron ore output to meet increasing demand.

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 39.9%³⁷⁷. The sector has registered a CAGR of 10.46% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 80 % of the contribution of the secondary sector to the GDDP.³⁷⁸

Figure 4.158– Composition of secondary sector of West Singhbhum & Saraikela



Source: Directorate of Economics & Statistics, Jharkhand

West Singhbhum is the home to many large scale companies like HPCL, Indian Oil Corporation, JUSCO, Power Grid Corporation of India, Usha Martin & TISCO. Fabricated metal products including auto components contribute about 33.3% of the total industrial output of the district. However, more than 50% of the industrial workforce of the district is engaged in food processing and beverage manufacturing.

Figure 4.159– Investments in MSME sector in West Singhbhum & Saraikela



Source: District Industrial Profile, DC-MSME

³⁷⁷ Directorate of Economics and Statistics, Jharkhand

³⁷⁸ Directorate of Economics and Statistics, Jharkhand

Upcoming Investments in Large Scale Industries in West Singhbhum

Some of the key investments are highlighted below:

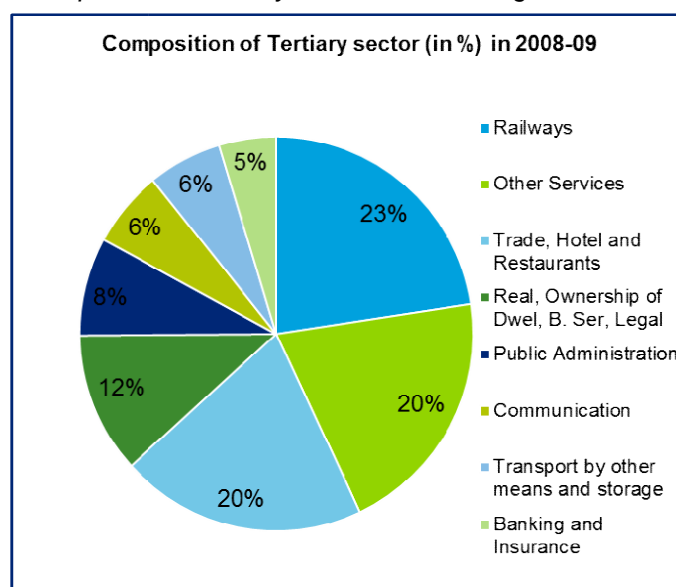
- Corporate Ispat Alloy Ltd. is setting up Kharsawan Steel Phase-I at an estimated investment of Rs 100,000 million.
- Jharkhand Silk Textile & Handicraft Development Corporation is developing Kharsawansilk park at an estimated cost of Rs 200 million.
- Jharkhand mild steel plant at an estimated cost of Rs 72,000 million

Source: CMIE Database

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 40.3% in 2008-09³⁷⁹. The sector has registered a CAGR of 9.31% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; public administration and Real Estate services.

Figure 4.160– Composition of tertiary sector of West Singhbhum & Saraikela



Source: Directorate of Economics & Statistics, Jharkhand

Railway was the highest contributor to tertiary sector in 2008-09 and has grown at 10.18% during 2001-09. About 220 km of railway network is operational in the district. Trade, hotel and restaurants contributed about 20% to tertiary sector. Other services including healthcare and education have grown at 4.13% during 2001-09.

Future Growth Opportunities in West Singhbhum & Saraikela Kharsawan

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential.

³⁷⁹ Directorate of Economics and Statistics, Jharkhand

Table 4.182– Focus sectors and growth opportunities in West Singhbhum & Saraikela

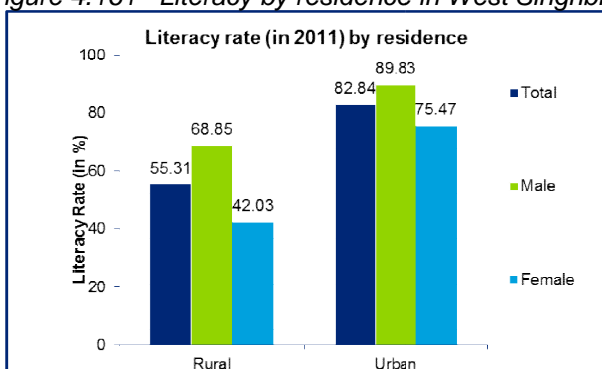
Sector/ Industry	Growth Opportunities
Sericulture	Sericulture is anticipated to grow in the district with the completion of Kharsawan silk park
Metal & Engineering Products	Metal & Engineering Products contribute about 1/3 rd of the industrial output and is expected to maintain its growth due to rise of ancillaries in auto parts, aluminium alloy components, Micro Drills, Forged auto, Railway component etc.
Construction	Expansions and investments in the manufacturing sector is likely to fuel infrastructure development leading to an increase in construction activities
Real Estate Services	Growth in construction activities is expected to have a positive effect on the demand of Real Estate services
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector.

4.17.3. Education

West Singhbhum

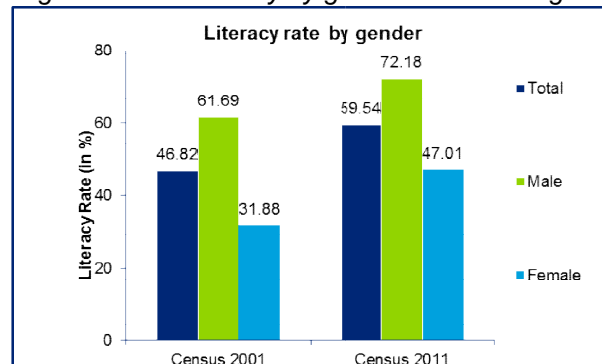
Western Singhbhum has a lower literacy rate of 59.54% in comparison to state average of 67.63%³⁸⁰ though it marks a significant improvement over literacy rate of 46.82% in 2001³⁸¹. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.161– Literacy by residence in West Singhbhum



Source: Census 2011

Figure 4.162– Literacy by gender in West Singhbhum



Source: Census 2001 & 2011

West Singhbhum has 2404 schools with enrolment of about 2.9 lakhs³⁸² in primary and upper primary. Enrolment in Government schools account for 89.2% of total enrolment. 72.8% of the students attend upper primary schools after primary education. On the other hand West Singhbhum has 123 secondary and higher secondary schools with enrolment of about 0.47 lakhs only.

In terms of vocational training infrastructure, West Singhbhum has one Government Industrial Training Institute, one Government Women Industrial Training Institute and 3 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, electrician, wiremen and machinist whereas the private ITCs focus on only two trades – electrician and fitter. Government ITI, Chaibasa also offers 10 courses under State Council for Vocational Training (SCVT). Government Women ITI offers 2 courses (Mechanic – TV/ Radio and Mechanic – General Electronics) under SCVT. In addition to ITIs/ITCs, a new government engineering college is being established in West Singhbhum.

³⁸⁰ Census of India, 2011

³⁸¹ Census of India, 2001

³⁸² DISE, 2010-11

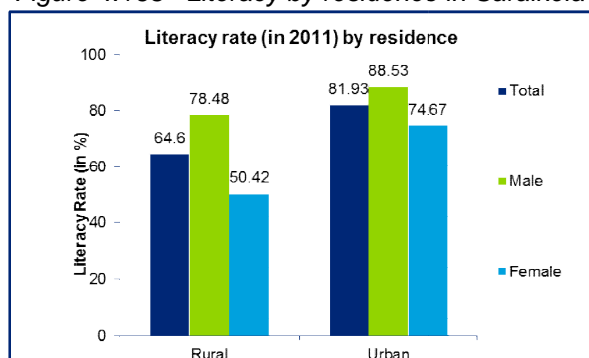
Table 4.183– Educational infrastructure in West Singhbhum

Educational Infrastructure	Number of Institutes 383	Approved Intake	Source
ITIs - Government	2	1169	Ministry of Labour, Jharkhand
ITCs - Private	3	626	Ministry of Labour, Jharkhand

SeraikelaKharsawan

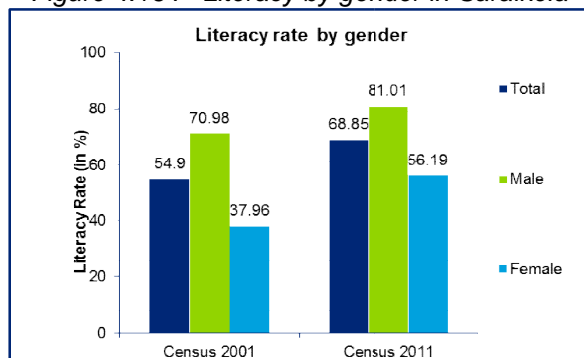
SeraikelaKharsawan has higher literacy rate of 68.85% in comparison to state average of 67.63%³⁸⁴. It marks a significant improvement over literacy rate of 54.90% in 2001³⁸⁵. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.163– Literacy by residence in Saraikela



Source: Census 2011

Figure 4.164– Literacy by gender in Saraikela



Source: Census 2001 & 2011

SeraikelaKharsawan has 1693 schools with enrolment of about 2.02 lakhs³⁸⁶ in primary and upper primary. Enrolment in Government schools account for 91.3% of total enrolment. 79.8% of the students attend upper primary schools after primary education. On the other hand SeraikelaKharsawan has 75 secondary and higher secondary schools with enrolment of about 0.38 lakhs only.

In terms of vocational training infrastructure, SeraikelaKharsawan has one Government Industrial Training Institute and 8 private Industrial Training Centres. Major trades offered in the Government ITI are fitter, electrician and turner (all courses under State Council for Vocational Training) whereas most of the private ITCs focus on only two trades – electrician and fitter.

In addition to ITIs/ITCs, SeraikelaKharsawan has one Government Polytechnic college with approved intake of 180 students. The college offers diploma in electrical, electronics & communication and computer science.

Table 4.184– Educational infrastructure in Saraikela

Educational Infrastructure	Number of Institutes 387	Approved Intake	Source
Polytechnic - Government	1	240	AICTE list of accredited institutes
ITIs - Government	1	180	Ministry of Labour, Jharkhand
ITIs - Private	8	1298	Ministry of Labour, Jharkhand

³⁸³ Same institute might offer different programs

³⁸⁴ Census of India, 2011

³⁸⁵ Census of India, 2001

³⁸⁶ DISE, 2010-11

³⁸⁷ Same institute might offer different programs

4.17.4. Employment Profile

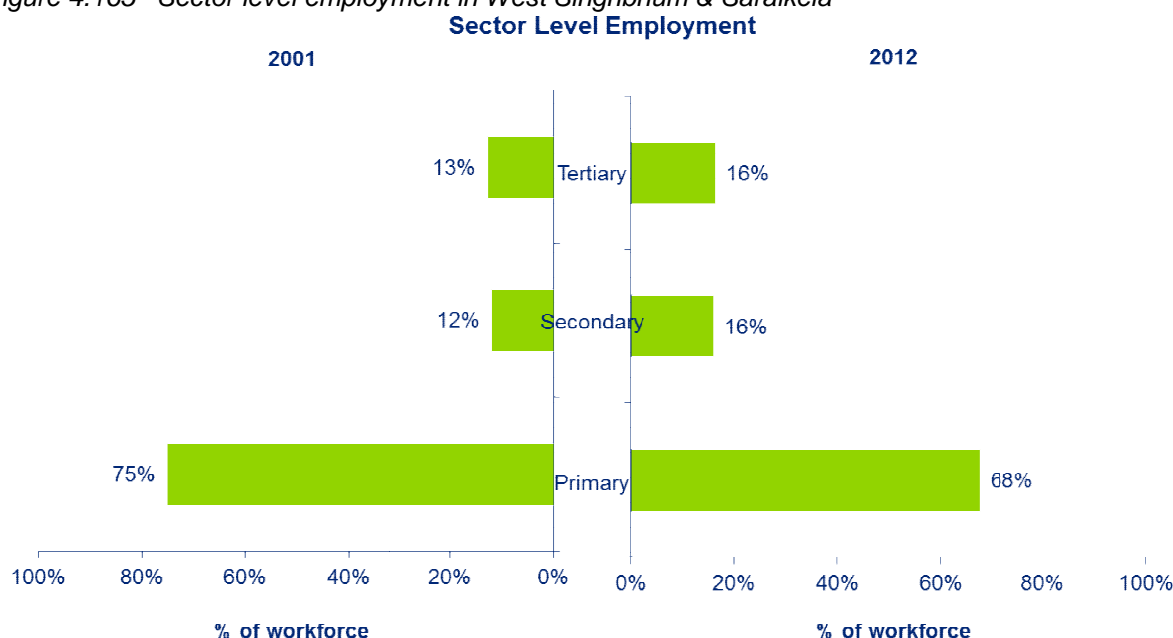
The work participation rate of erstwhile West Singhbhum district was 44.1% which is higher than the state average of 37.5%³⁸⁸. Total workforce is expected to increase to 12.1 lakhs in 2012.

Table 4.185– Employment profile in West Singhbhum & Saraikela

Employment Profile (In Lakhs)	2001 ³⁸⁹	2012 ³⁹⁰
Total Population	20.82	26.19
Working Age Population	11.50	16.35
Labour Force	9.24	12.37
Workforce	9.18	12.14

About 75% of the workers in West Singhbhum district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 67% in 2012 on account of increase in opportunities in secondary and tertiary sectors³⁹¹.

Figure 4.165– Sector level employment in West Singhbhum & Saraikela



4.17.5. Skill Gap Assessment

West Singhbhum

Manpower supply

The population of West Singhbhum in 2011 was about 15.01 lakhs which is expected to increase to about 16.9 lakhs in 2017 and about 18.6 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 2.32 lakhs.

³⁸⁸ Census of India, 2011

³⁸⁹ Census of 2001

³⁹⁰ Deloitte Analysis

³⁹¹ Deloitte Analysis

Table 4.186– Estimated workforce of West Singhbhum

Estimated Work Force			
	2011	2017	2022
Population	1501619	1689323	1863546
Working age population	956314	1091790	1245038
Available Labour Force	709391	825943	941875
Projected Work Force	692706	802225	893346
Incremental manpower supply (2012-22)	232484		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.187– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	3815	4077	7892
Semi-Skilled	7943	6311	14254
Minimally skilled	104794	105544	210338

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 2.04 lakhs including 1.02 lakhs in organized sectors and 1.02 lakh in unorganized sectors.

About 50% of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, transportation & logistics and metal products. The secondary sector which contributes about 39.9% of the GDDP is expected to continue its growth as about 56% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by building & construction, metallic products and handicrafts.

Tertiary sector which contributes about 40.3% of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, transportation & logistics and business services.

Table 4.188– Incremental manpower demand in West Singhbhum in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ³⁹²	14	48	416	11	36	312
Mining and Quarrying	58	116	405	44	87	305
Total (I)	72	164	821	55	123	617
Secondary Sector						
Mineral Based Products	219	657	219	187	561	187
Leather and Leather Goods	-	-	98	-	-	83
Textile & Garments	12	24	203	10	20	173
Metallic Products	1833	5498	1833	1564	4693	1564
Chemical & Pharmaceuticals	78	131	52	67	111	45
Other Manufacturing	357	595	1429	305	508	1220
Building and Construction	1078	2696	7010	879	2198	5714
Food Processing	152	457	2435	130	390	2079
Handicraft & Wood based furniture	199	199	3591	170	170	3064
Total (II)	3928	10257	16870	3312	8651	14129
Tertiary Sector						
Tourism, Hospitality and Travel Trade	3168	3168	1584	2397	2397	1199
Transportation & Logistics/ warehousing/ packaging	543	1086	3801	446	893	3124
Real Estate Services	1117	1117	2233	1180	1180	2359
Media & Entertainment	726	654	73	621	559	62
Healthcare Services	169	948	0	31	219	0
Banking Insurance & Finance	1517	179	89	1734	204	102
Education/ Skill Development Services	794	595	0	757	264	0
Total (III)	8034	7747	7780	7166	5716	6846
Grand Total (I+II+III)	12058	18195	25497	10550	14511	21611
Total Incremental Demand	102420					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 1.02 lakhs in the next 10 years.

Table 4.189– Incremental manpower demand in West Singhbhum in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	42553	31908
Drivers	946	987
Others	14082	11641
Total	57581	44536
Total Incremental Demand – Unorganized Sectors	102117	

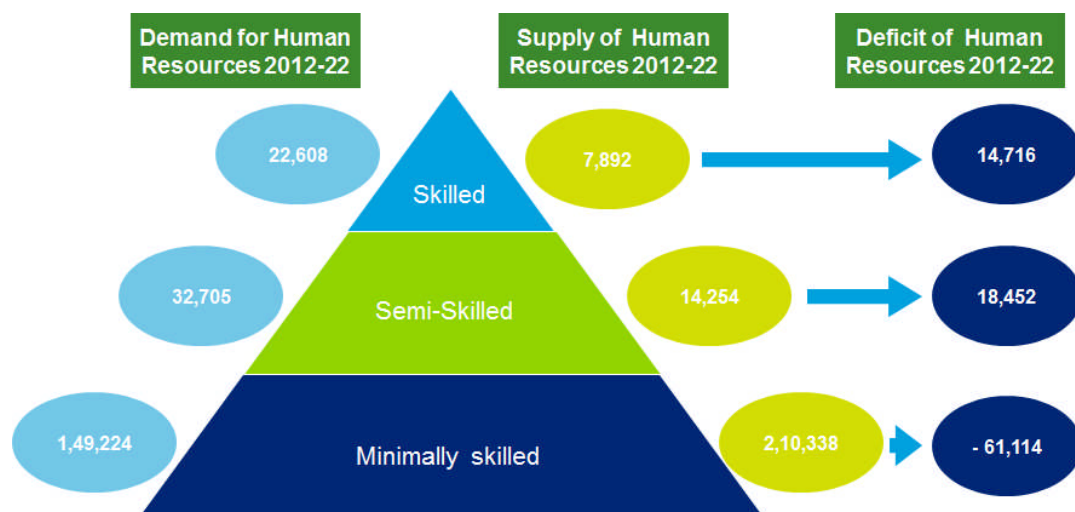
³⁹² Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.30 lakhs.³⁹³

Figure 4.166– Incremental manpower gap in West Singhbhum



SeraikelaKharsawan

Manpower Supply

The population of SeraikelaKharsawan in 2011 was about 10.6 lakhs which is expected to increase to about 12.17 lakhs in 2017 and about 13.62 lakhs in 2022. As per the methodology highlighted in section 2, the estimated incremental manpower supply will be about 1.86 lakhs.

Table 4.190– Estimated workforce of Saraikela

Estimated Work Force			
	2011	2017	2022
Population	1063458	1217444	1362667
Working age population	679241	786820	910400
Available Labour Force	502396	595232	688720
Projected Work Force	490580	568142	632675
Incremental manpower supply (2012-22)	186324		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.190– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	710	835	1545
Semi-Skilled	5524	4385	9909
Minimally skilled	86602	88268	174870

³⁹³The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 1.44 lakhs including 0.72 lakhs in organized sectors and 0.72 lakhs in unorganized sectors.

About 50% of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, transportation & logistics and metal products. The secondary sector which contributes about 39.9% of the GDDP is expected to continue its growth as about 56% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by building & construction, metallic products and handicrafts. Tertiary sector which contributes about 40.3% % of the GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, transportation & logistics and business services.

Table 4.192– Incremental manpower demand in Saraikela in organized sectors

Incremental Demand – Organized sectors	2012-17			2017-2022		
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ³⁹⁴	10	34	294	-	25	221
Mining and Quarrying	41	82	287	31	62	216
Total (I)	51	116	581	31	87	437
Secondary Sector						
Mineral Based Products	155	465	155	132	397	132
Leather and Leather Goods	-	-	69	-	-	59
Textile & Garments	-	17	144	-	14	123
Metallic Products	1298	3894	1298	1108	3323	1108
Chemical & Pharmaceuticals	55	92	37	47	79	32
Other Manufacturing	253	422	1012	216	360	864
Building and Construction	764	1909	4965	623	1556	4047
Food Processing	108	323	1725	92	276	1472
Handicraft & Wood based furniture	141	141	2543	121	121	2170
Total (II)	2774	7263	11948	2339	6126	10007
Tertiary Sector						
Tourism, Hospitality and Travel Trade	2244	2244	1122	1698	1698	849
Transportation & Logistics/ warehousing/ packaging	385	769	2692	316	632	2213
Real Estate Services	791	791	1582	835	835	1671
Media & Entertainment	514	463	51	440	396	44
Healthcare Services	120	672	0	22	155	0
Banking Insurance & Finance	1075	126	63	1228	144	72
Education/ Skill Development Services	562	421	0	536	187	0
Total (III)	5691	5486	5510	5075	4047	4849
Grand Total (I+II+III)	8539	12886	18057	7472	10276	15305
Total Incremental Demand	72535					

³⁹⁴ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) - Totals may not match due to rounding offs

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.72 lakhs in the next 10 years.

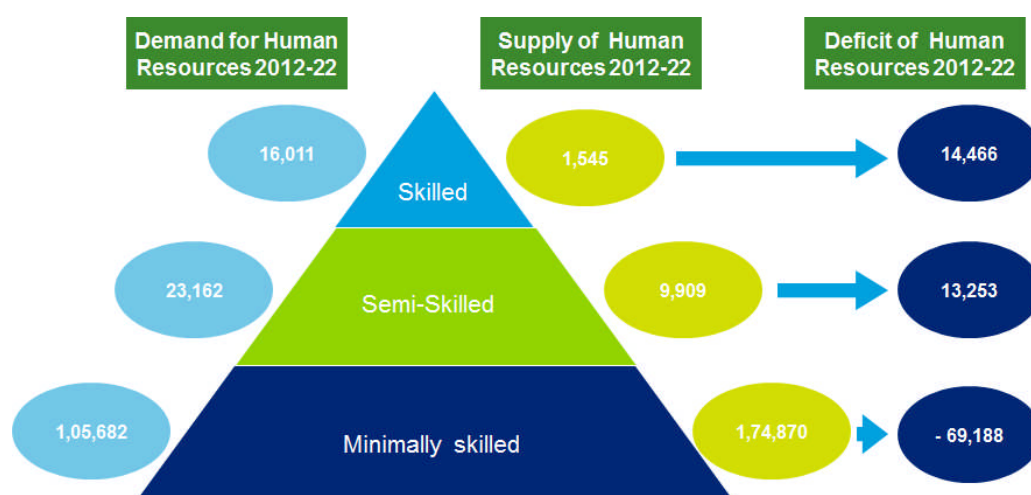
Table 4.193– Incremental manpower demand in Saraikela in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	30136	22597
Drivers	670	699
Others	9973	8245
Total	40779	31541
Total Incremental Demand – Unorganized Sectors	72320	

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about (-) 0.49 lakhs.³⁹⁵

Figure 4.167– Incremental manpower gap in Saraikela



Qualitative Skill Gaps

Table 4.194– Qualitative skill gaps in high demand sectors in West Singhbhum & Saraikela

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills - Inadequate knowledge of practical aspects - Lack of coordination skills

³⁹⁵ The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills
Metallic Products & Engineering Parts	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian market segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate courtesy level - Lack of discipline - Insufficient communication skills
Travel & Logistics	Driver	<ul style="list-style-type: none"> - Inadequate courtesy level - Lack of communication skills
	Travel Agent	<ul style="list-style-type: none"> - Lack of networking skills - Lack of understanding of supply chain concepts

4.17.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the PSEs or Indian Railways. Unlike many other districts, only a small percentage of students are interested in starting own business.
- Students highlighted lack of quality faculty & instructors as major barriers in skill development in the institutes. Also, lack of soft skills training has also been identified as a hindrance for many students to get jobs in the open market.
- Most students showed preference for higher studies if they would not get Government or PSU jobs.

Youth in West Singhbhum aspire to get apprenticeship in a good company where they can get job after completion of the apprenticeship.

Source: Focus Group Discussion, Chaibasa

4.17.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Metal Products & Engineering parts
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Real Estate Services (iii) Transportation & Logistics

Considering economic and skill landscape of the districts, the proposed action plan would consist of the following priority areas:

Table 4.195– Recommendations and action points for West Singhbhum & Saraikela

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> • Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate services - Transportation & logistics - Tourism, hospitality & travel
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> • Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate - Metallic products industry • Update machinery & provide manuals in workshops for practical classes • Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Banking, insurance & finance - Tourism, hospitality & travel - Transportation & logistics • Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> • Establish training initiatives in PPP mode for coal & steel industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres • Explore arrangements including public private partnerships (PPP) for operating

Stakeholder	Action points
	<p>the vocational training institutes</p> <ul style="list-style-type: none"> • Engage with industry players like SAIL, Coal India & BCCL and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students • Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income • Focus on supporting creation of micro-enterprises/ ancillaries for minerals sector in the district
Industry	<ul style="list-style-type: none"> • Collaborate with skill development institutes for updating course content & creating linkages for placement • Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms • Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Coal& Steel industry - Metallic products& Engineering parts - Construction

4.18 Ranchi & Khunti

Ranchi district is located in the southern part of the state and is surrounded by Ramgarh, Hazaribag & Chatra districts in the north, Khunti & Seraikela-Kharsawan districts in the south, the state of West Bengal in the east and Latehar, Lohardaga & Gumla districts in the west. The district is spread over 523.1 thousand hectares which constitutes about 6.5% of total geographical area of Jharkhand. Administratively, the district is divided into 2 subdivisions and 18 blocks. The district headquarter is located in Ranchi city.

Khunti district was carved out of Ranchi district in 2007. Khunti district is located in the central part of the state and is surrounded by Ranchi district in the north, Seraikela Kharsawan in the east, West Singhbhum in the south and the districts of Simdega & Gumla in the west. The district is spread over 246.7 thousand hectares which constitutes about 3.1% of total geographical area of Jharkhand. Administratively, the district is divided into 6 blocks. The district headquarter is located in Khunti town.

4.18.1. Demography

Ranchi has a population of 29.1 lakhs as of 2011 of which about 43.18% reside in urban areas³⁹⁶ which is much higher in comparison to the state average. The district is densely populated with 557 persons per sq. km. in comparison to the state average of 414³⁹⁷. The district has a higher sex ratio than the state average.

Khunti has a population of 5.30 lakhs as of 2011 of which about 8.51% reside in urban areas³⁹⁸ which is lower in comparison to the state average. The district is sparsely populated with 215 persons per sq. km. in comparison to the state average of 414³⁹⁹. The district has a lower sex ratio than the state average.

Table 4.196– Demography of Ranchi & Khunti

Demography	Ranchi	Khunti	Jharkhand
Population (2011)	29,12,022	5,30,299	3,29,66,238
Decadal Population Growth Rate (2001-11)	23.90%	21.96%	22.34%
Population density per sq. km (2011)	557	215	414
Sex Ratio (2011)	950	994	947
Percentage of Urban Population (2011)	43.18%	8.51%	24%
Percentage of SC population (2001)	5.17%	5.17%	11.8%
Percentage of ST population (2001)	41.82%	41.82%	26.3%

4.18.2. Economic Profile

Gross District Domestic Product (GDDP) of erstwhile Ranchi district has grown at a lower growth rate (CAGR) of 6.54% between 2004-05 and 2008-09 as compared to the state average of 6.70% during the same period⁴⁰⁰. Tertiary sector contributes about 54.3% of the GDDP primarily on account of contribution coming from trade, hotel & restaurants.

³⁹⁶ Census of India, 2011

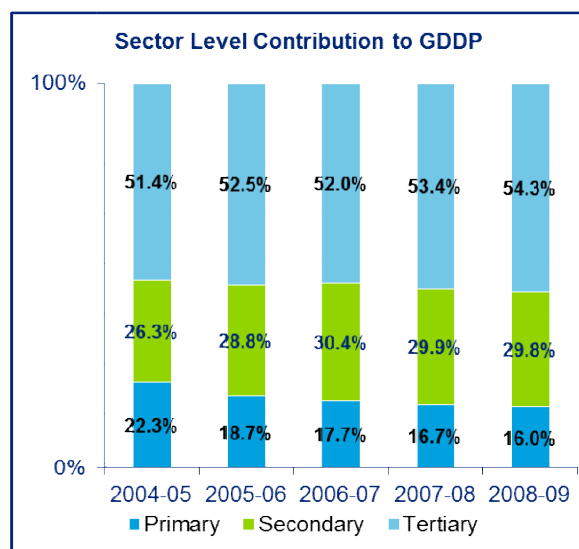
³⁹⁷ Census of India, 2011

³⁹⁸ Census of India, 2011

³⁹⁹ Census of India, 2011

⁴⁰⁰ Directorate of Economics and Statistics, Jharkhand

Figure 4.168– Sector level contribution to GDDP of Ranchi & Khunti

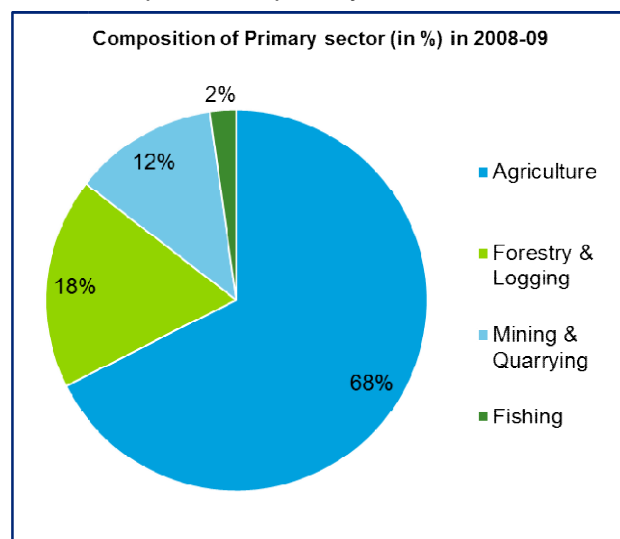


Source: Directorate of Economics & Statistics, Jharkhand

Primary Sector

The primary sector (agriculture, forestry & logging, fishing and mining & quarrying) contributed about 16% to the GDDP in 2008-09⁴⁰¹. The percentage contribution of primary sector to the GDDP has seen a decrease in the last few years primarily on account of decrease in contribution of agriculture.

Figure 4.169– Composition of primary sector of Ranchi & Khunti



Source: Directorate of Economics & Statistics, Jharkhand

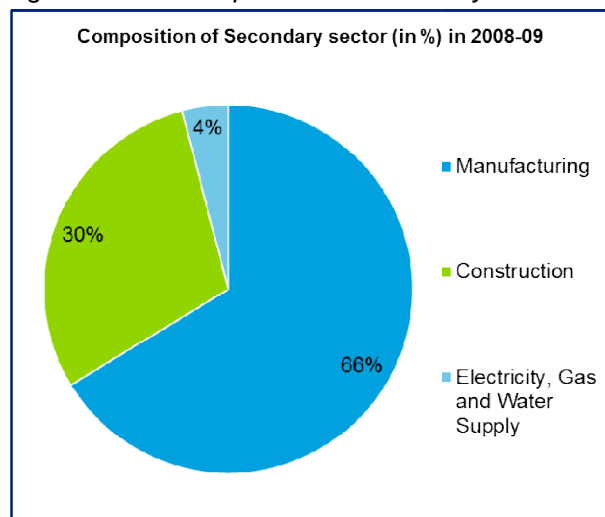
Paddy, maize and arhar are the top three major crops produced in Ranchi. In terms of vegetable production, contribution of Ranchi was highest in the state with 485130 MT/ year. Some of the fruits grown in Ranchi are mango, guava and strawberry; while major vegetables include potato, brinjal, cabbage and tomato. In animal husbandry, the district ranks highest in the state for total number of poultry and cattle stock. Ranchi has deposits of various minerals like lime stone, coal, china clay, gold, granite and asbestos.

⁴⁰¹ Directorate of Economics and Statistics, Jharkhand

Secondary Sector

The contribution of secondary sector to district GDP in 2008-09 was about 29.8%⁴⁰². The sector has registered a CAGR of 9.86% between 2004-05 and 2008-09 primarily on account of high growth in manufacturing activities. Manufacturing activities contributed about 66.2% of the contribution of the secondary sector to the GDDP.⁴⁰³

Figure 4.170– Composition of secondary sector of Ranchi & Khunti



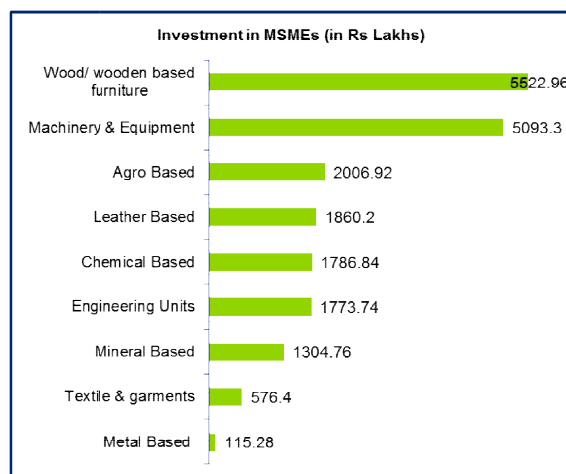
Source: Directorate of Economics & Statistics, Jharkhand

Sector Highlights

- Basic Iron & Steel industry contribute more than 50% of the industrial output of Ranchi.
- Un-registered manufacturing in Ranchi is mainly consists of brass & bell metal products, stone carving, wood carving, cane and bamboo products.

Ranchi is a prominent location in the industrial map of India. More than 50% of Ranchi's industrial output comes from basic iron and steel industry which primarily comprises small and medium scale steel fabrication units. Metals are second largest manufacturing sector in Ranchi. Existence of large engineering and manufacturing industries such as Heavy Engineering Corporation, Usha Martin and MECON offer immense scope for the establishment of ancillaries units to these industries. In addition to the above there are 11 industrial areas in Ranchi namely Tatisilwai Industrial Area – I & II, Tupudana Industrial Area Phase – I & II, Tupudana Industrial Area, Namkum Industrial Area, Kokar Industrial Area, HEC Sheds, Shops Railway Side, Shops Roadway side and Special component shed. Key industries in MSME sector include textile, wood based furniture, rubber & plastic and electrical machinery.

Figure 4.171– Investments in MSME sector in Ranchi & Khunti



⁴⁰² Directorate of Economics and Statistics, Jharkhand

⁴⁰³ Directorate of Economics and Statistics, Jharkhand

Upcoming Investments in Large Scale Industries in Ranchi

A number of new industrial facilities are coming up in Ranchi in the next five years. Some of the key investments are highlighted below:

- Upgrade of Ranchi airport at an estimated cost of Rs 1500 million
- Mega food park at Ranchi is being set up with an investment of Rs 1,140 million
- Construction projects like Ranchi multiplex, SAIL city residential township etc.
- Baranda coal based power plant by JSW Energy Ltd. with an investment of Rs 79,000 million.

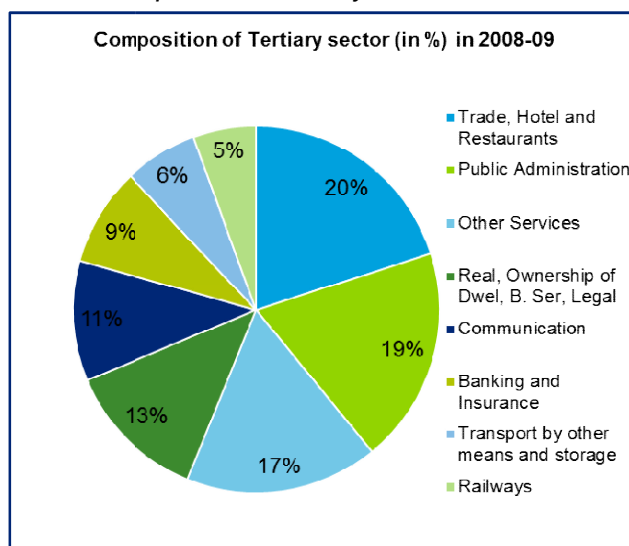
Source: CMIE Database

Source: District Industrial Profile, DC-MSME

Tertiary Sector

The contribution of the tertiary sector to GDDP was about 54.2% in 2008-09⁴⁰⁴. The sector has registered a CAGR of 7.98% between 2004-05 and 2008-09. Key contributors to the sector include trade, hotel and restaurants; public administration and other services.

Figure 4.172– Composition of tertiary sector of Ranchi & Khunti



Source: Directorate of Economics & Statistics, Jharkhand

Trade, hotel and restaurants have grown at a rate of 9% during 2001-09. Players like PVR and Kashish Developers Ltd. are opening new malls & restaurants in the district. During 2010-11, the district had 203 commercial bank & 40 rural bank branches. Organized retail outlets like Big Bazaar and Mahindra Mom & Me have opened branches in the district.

There has been a rise in tourism at Ranchi in the last few years which has given an impetus to the hospitality industry. Some of the major tourist spots in Ranchi are Hundru Falls, Jonha Fall and Ranchi Hill etc. The state government has set up a Software Technology Park of India (STPI) in Ranchi to promote export oriented companies in Information Technology sector.

⁴⁰⁴ Directorate of Economics and Statistics, Jharkhand

Future Growth Opportunities in Ranchi

As per the current economic profile, proposed investments and primary interactions with industry & industry association representatives in the district the following sectors/industries have been identified with good growth potential

Table 4.197– Focus sectors and growth opportunities in Ranchi & Khunti

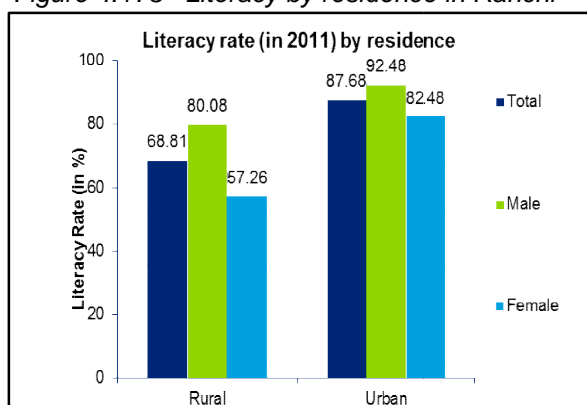
Sector/ Industry	Growth Opportunities
Basic Iron and Steel	It is the highest contributor to industrial output and is expected to grow at a higher growth rate on account of proposed investments in the sector
Other Metal based and Engineering units	Proposed investments in the district, is likely to create more opportunities for ancillary units in the district particularly engaged in metal based & engineering activities
Construction	Expansions and investments in the manufacturing sector is likely to fuel infrastructure development leading to an increase in construction activities
Real Estate Services	Growth in construction activities is expected to have a positive effect on the demand of Real Estate services
Tourism, Hospitality & Travel Trade	It is the highest contributor to the tertiary sector and will continue to grow at a similar rate on account of growth in secondary and tertiary sector. Organised trade has potential in the district.
Banking & Finance	The district is industrial and services hub of Jharkhand & has huge potential for banking & finance sector.

4.18.3. Education

Ranchi

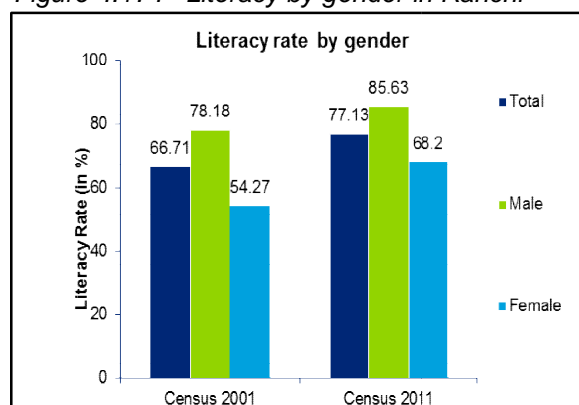
Ranchi has a higher literacy rate of 77.13% in comparison to state average of 67.63%⁴⁰⁵. It marks a significant improvement over literacy rate of 66.71% in 2001⁴⁰⁶. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

Figure 4.173– Literacy by residence in Ranchi



Source: Census 2011

Figure 4.174– Literacy by gender in Ranchi



Source: Census 2001 & 2011

Ranchi has 2969 schools with enrolment of about 5.26 lakhs⁴⁰⁷ in primary and upper primary. Enrolment in Government schools account for 61.06% of total enrolment. 82.7% of the students attend upper

⁴⁰⁵ Census of India, 2011

⁴⁰⁶ Census of India, 2001

⁴⁰⁷ DISE, 2010-11

primary schools after primary education. On the other hand Ranchi has 353 secondary and higher secondary schools with enrolment of about 2 lakhs only.

In terms of vocational training infrastructure, Ranchi has 2 Government Industrial Training Institute, 1 Government Industrial Training Institute for women and 36 private Industrial Training Centres. Major trades offered in general ITIs are fitter, turner, machinist and electrician whereas women ITI focuses on stenography and cutting & sewing. In addition to ITIs/ITCs, Ranchi has one Government polytechnic and one Government Women's polytechnic offering Diploma programs in 6 specialisations with approved intake of 360 and 180 students respectively.

Ranchi is the hub for higher education in Jharkhand. Many institutes of national repute like Indian Institute of Management, Ranchi, Birla Institute of Technology, Xavier Institute of Social Service and National Institute of Foundry and Forge Technology are located in the district.

Ranchi has 11 institutions offering AICTE accredited programs in the field of engineering/ technology, management, pharmacy, hotel management, architecture and computer application as highlighted in the table below. The total approved intake of the accredited institutes is 3,896 students per year. In addition to the AICTE accredited institutes, one central university, one Indian Institute of Management, three state universities, one deemed university and one private university are also located in Ranchi.

Table 4.198– Educational infrastructure in Ranchi

Educational Infrastructure	Number of Institutes*	Approved Intake	Source
Programs: Engineering/ Technology	4	2457	AICTE list of accredited institutes
Architecture	1	52	AICTE list of accredited institutes
Hotel Management	2	210	AICTE list of accredited institutes
MCA	1	120	AICTE list of accredited institutes
Pharmacy	2	192	AICTE list of accredited institutes
ITIs - Government	3	1899	Ministry of Labour, Jharkhand
ITCs - Private	36	12070	Ministry of Labour, Jharkhand
Government Polytechnics	2	480	Department of Science and Technology, Jharkhand
Private Polytechnics	6	1350	AICTE list of accredited institutes

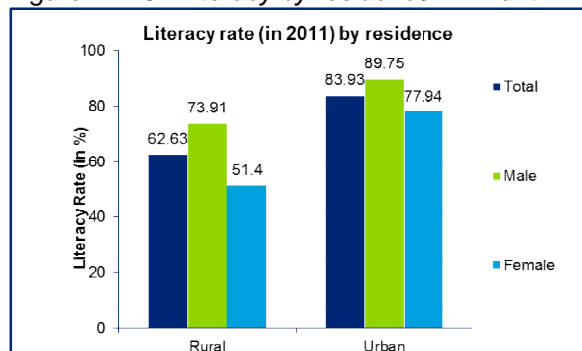
Khunti

Khunti has a lower literacy rate of 64.51% in comparison to state average of 67.63%⁴⁰⁸. It marks a significant improvement over literacy rate of 52.92% in 2001⁴⁰⁹. However, significant gaps in literacy rate exist in male-female literacy and urban-rural literacy.

⁴⁰⁸ Census of India, 2011

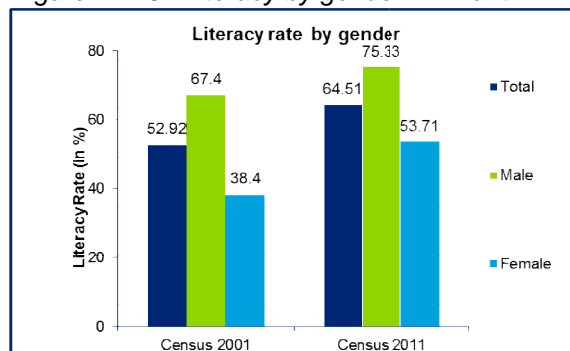
⁴⁰⁹ Census of India, 2001

Figure 4.175– Literacy by residence in Khunti



Source: Census 2011

Figure 4.176– Literacy by gender in Khunti



Source: Census 2001 & 2011

Khunti has 1107 schools with enrolment of about 1.14 lakhs⁴¹⁰ in primary and upper primary. Enrolment in Government schools account for 68.7% of total enrolment. 86.3% of the students attend upper primary schools after primary education. On the other hand Khunti has 69 secondary and higher secondary schools with enrolment of about 0.21 lakhs only.

4.18.4. Employment Profile

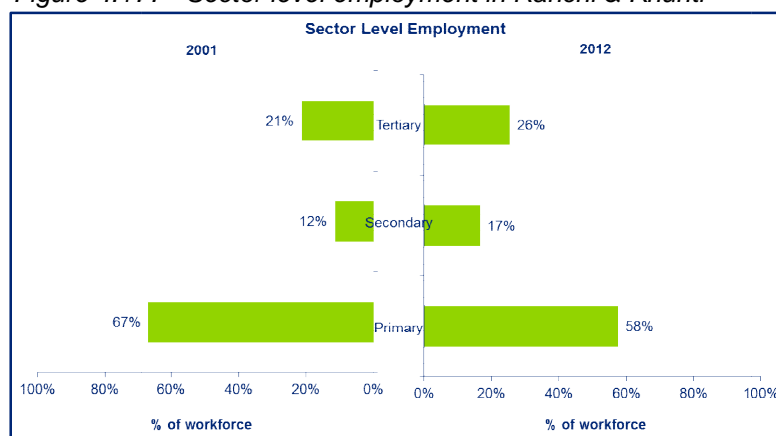
The work participation rate of erstwhile Ranchi district was 38.7% which is slightly higher than the state average of 37.5%⁴¹¹. Total workforce is expected to increase to 13.9 lakhs in 2012.

Table 4.199– Employment profile in Ranchi & Khunti

Employment Profile (In Lakhs)	2001 ⁴¹²	2012 ⁴¹³
Total Population	27.85	35.16
Working Age Population	15.69	22.49
Labour Force	11.7	15.6
Workforce	10.8	13.9

About 67% of the workers in Ranchi district were engaged in primary sector in 2001, which is estimated to slightly decrease to about 58% in 2012 on account of increase in opportunities in secondary and tertiary sectors⁴¹⁴

Figure 4.177– Sector level employment in Ranchi & Khunti

⁴¹⁰ DISE, 2010-11⁴¹¹ Census of India, 2001⁴¹² Census of 2001⁴¹³ Deloitte Analysis⁴¹⁴ Deloitte Analysis

4.18.5. Skill Gap Assessment

Ranchi

Manpower Supply

The population of Ranchi in 2011 was about 29.1 lakhs which is expected to increase to about 33.1 lakhs in 2017 and about 36.8 lakhs in 2022. As per the methodology highlighted in section 2 the estimated incremental manpower supply will be about 2.48 lakhs.

Table 4.200– Estimated workforce of Ranchi

Estimated Work Force			
	2011	2017	2022
Population	2912022	3311596	3686149
Working age population	1863308	2189018	2514561
Available Labour Force	1294452	1520724	1746881
Projected Work Force	1134020	1392507	1640966
Incremental manpower supply (2012-22)	248508		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.201– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	13882	14515	28397
Semi-Skilled	75742	62521	138263
Minimally skilled	136649	149121	285770

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 5.07 lakhs including 3.36 lakhs in organized sectors and 1.71 lakh in unorganized sectors.

More than 66% of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, business services, banking & finance and metal based products. The secondary sector which contributes 29.7% of GDDP is expected to continue its growth as about 40% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by metal based products, handloom & handicrafts and building & construction.

Tertiary sector which contributes about 54% of GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, banking & finance, transportation & logistics and business services.

Table 4.202– Incremental manpower demand in Ranchi in organized sectors

Incremental Demand – Organized sectors		2012-17			2017-2022	
Sectors	Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector						
Agriculture & allied activities ⁴¹⁵	13	44	385	10	32	282
Mining and Quarrying	18	35	124	12	25	87
Total (I)	31	79	509	22	57	369
Secondary Sector						
Fabricated Metal Products	4221	12663	4221	3849	11547	3849
Mineral Based Products	1344	4032	1344	1226	3677	1226
Other Manufacturing	165	275	659	150	250	601
Textiles & garments	24	47	403	22	43	368
Leather/ Leather goods	11	11	199	10	10	182
Chemicals & pharmaceuticals	74	123	49	67	112	45
Building & construction	3839	9598	24955	3377	8443	21953
Food processing/ Cold Chain/ Refrigeration	19	58	311	18	53	284
Handlooms & handicrafts	318	318	5728	290	290	5223
Total (II)	10015	27125	37869	9009	24425	33731
Tertiary Sector						
IT/ ITES Services	148	68	11	293	135	23
Tourism Hospitality and Travel Trade	17720	17720	8860	15212	15212	7606
Transportation & Logistics/ warehousing/ packaging	569	1137	3980	461	922	3228
Organized Retail	19	41	15	50	111	40
Real Estate Services	5679	5679	11357	7246	7246	14491
Media & Entertainment	3487	3138	349	3231	2908	323
Healthcare Services	381	2904	0	61	433	0
Banking Insurance & Finance	7531	886	443	8606	1012	506
Education/ Skill Development Services	2427	4221	0	1643	2399	0
Total (III)	37959	35794	25016	36803	30379	26218
Grand Total (I+II+III)	48053	63065	63469	45869	54911	60372
Total Incremental Demand	335739					

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 1.71 lakhs in the next 10 years.

Table 4.203– Incremental manpower demand in Ranchi in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	39452	28850
Drivers	10697	12896
Others	33585	45495
Total	83734	87241
Total Incremental Demand – Unorganized Sectors	170975	

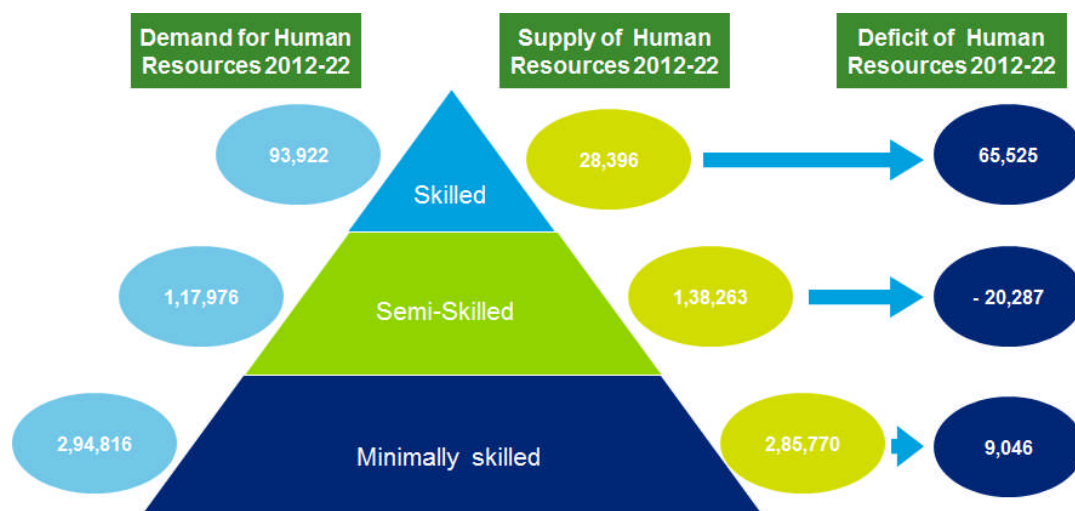
⁴¹⁵ Employment in organized agriculture activities

“ – “ Negligible Demand (<10) – Totals may not match due to rounding offs

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.54 lakhs.⁴¹⁶

Figure 4.178– Incremental manpower gap in Ranchi



Khunti

Manpower Supply

The population of Khunti in 2011 was about 5.3 lakhs which is expected to increase to about 5.97 lakhs in 2017 and about 6.59 lakhs in 2022. As per the methodology highlighted in section 2 the estimated incremental manpower supply will be about 0.77 lakhs.

Table 4.204– Estimated workforce of Khunti

Estimated Work Force			
	2011	2017	2022
Population	530299	597381	659721
Working age population	339321	394878	450038
Available Labour Force	235728	274324	312644
Projected Work Force	206513	253585	298831
Incremental manpower supply (2012-22)	76916		

Incremental manpower supply can be further classified into skilled, semiskilled and minimally skilled as per education qualifications and estimated output of educational and vocational training institutes in the district. Please refer annexure 5.8 for sector level skill definitions.

Table 4.205– Estimated workforce as per skill levels

Estimated Workforce as per Skill Levels			
	2012-17	2017-22	Total
Skilled	527	445	972
Semi-Skilled	130	0	130
Minimally skilled	37938	37875	75813

⁴¹⁶The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Manpower Demand

As per the methodology highlighted in section 2 the estimated incremental manpower demand will be about 0.92 lakhs including 0.61 lakhs in organized sectors and 0.31 lakhs in unorganized sectors. More than 66% of the incremental manpower demand is expected to come from organized sector, primarily from building & construction, tourism, travel & trade, business services, banking & finance and metal based products. The secondary sector which contributes 29.7% of GDDP is expected to continue its growth as about 40% of the total incremental demand in the organized sector is expected to come from this sector. The manpower demand in the secondary sector is expected to be primarily driven by metal based products, handloom & handicrafts and building & construction. Tertiary sector which contributes about 54% of GDDP is anticipated to continue its growth driven by tourism, hospitality & trade, banking & finance, transportation & logistics and business services.

Table 4.206– Incremental manpower demand in Khunti in organized sectors

Incremental Demand –		2012-17			2017-2022		
Organized sectors		Skilled	Semi-Skilled	Minimally skilled	Skilled	Semi-Skilled	Minimally skilled
Primary Sector							
Agriculture & allied activities ⁴¹⁷	-	-	70	-	-	-	51
Mining and Quarrying	-	-	23	-	-	-	16
Total (I)	-	-	93	-	-	-	67
Secondary Sector							
Fabricated Metal Products	769	2306	769	701	2103	701	
Mineral Based Products	245	734	245	223	670	223	
Other Manufacturing	30	50	120	27	46	109	
Textiles & garments	-	-	73	-	-	67	
Leather/ Leather goods	-	-	36	-	-	33	
Chemicals & pharmaceuticals	13	22	-	12	20	-	
Building & construction	699	1748	4544	615	1538	3998	
Food processing/ Cold Chain/ Refrigeration	-	11	57	-	10	52	
Handlooms & handicrafts	58	58	1043	53	53	951	
Total (II)	1814	4929	6887	1631	4440	6134	
Tertiary Sector							
IT/ ITES Services	27	12	-	53	25	-	
Tourism Hospitality and Travel Trade	3227	3227	1613	2770	2770	1385	
Transportation & Logistics/ warehousing/ packaging	104	207	725	84	168	588	
Organized Retail	-	-	-	-	20	-	
Real Estate Services	1034	1034	2068	1319	1319	2639	
Media & Entertainment	635	572	64	588	530	59	
Healthcare Services	69	529	0	11	79	0	
Banking Insurance & Finance	1371	161	81	1567	184	92	
Education/ Skill Development Services	442	769	0	299	437	0	
Total (III)	6909	6511	4551	6691	5532	4763	
Grand Total (I+II+III)	8751	11485	11558	8353	10000	10994	
Total Incremental Demand	61140						

“–Negligible Demand (<10) – Totals may not match due to rounding offs

⁴¹⁷ Employment in organized agriculture activities

As per the methodology highlighted in appendix 5.9, the estimated incremental demand in unorganized sectors including Agriculture and allied activities is expected to be about 0.31 lakhs in the next 10 years.

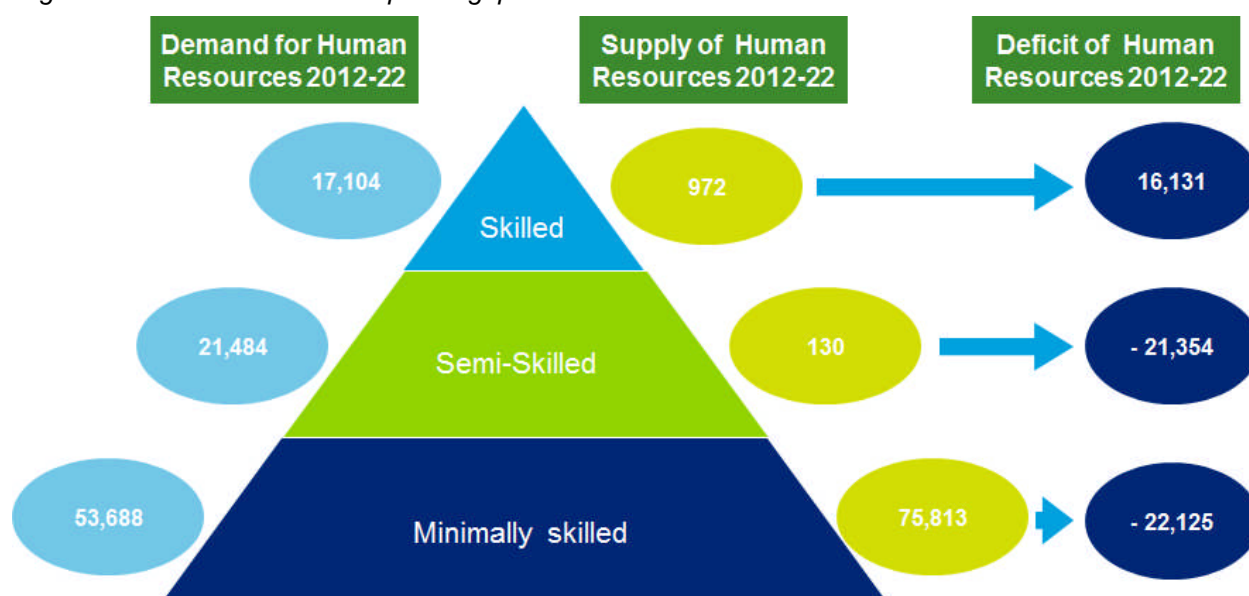
Table 4.207– Incremental manpower demand in Khunti in unorganized sectors

Incremental Demand – Unorganized Sectors		
Sectors	2012-17	2017-22
Agriculture & allied activities	7185	5254
Drivers	1948	2348
Others	6116	8285
Total	15249	15887
Total Incremental Demand – Unorganized Sectors	31136	

Incremental Demand Supply Gap

During the period 2012-22 the demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.15 lakhs.⁴¹⁸

Figure 4.179– Incremental manpower gap in Khunti



Qualitative Skill Gaps

Table 4.208– Qualitative skill gaps in high demand sectors in Ranchi & Khunti

Sector	Level	Skill Gaps
Building & Construction	Engineers	<ul style="list-style-type: none"> - Inadequate knowledge of safety aspects - Inadequate understanding of theoretical concepts - Inadequate communication skills - Poor time management skills
	Supervisors	<ul style="list-style-type: none"> - Inadequate understanding of theoretical concepts - Inadequate communication skills

⁴¹⁸The minimally skilled category also includes unorganized agriculture & allied activities and other unorganized sectors such as drivers, domestic help, security guards etc.

Sector	Level	Skill Gaps
		<ul style="list-style-type: none"> - Inadequate knowledge of practical aspects - Lack of coordination skills
	Workmen	<ul style="list-style-type: none"> - Lack of knowledge of basic machine operation - Lack of construction specific skills like lining, leveling etc. - Inadequate safety orientation - Inability to understand and follow simple instructions
Real Estate Services	Project Planner	<ul style="list-style-type: none"> - Inadequate understanding of government regulations - Inadequate networking skills - Inadequate ability to plan out large projects including financial planning
	Facility Management	<ul style="list-style-type: none"> - Incomplete understanding of maintenance services - Inadequate customer orientation and interaction skills - Inadequate documentation skills - Inadequate communication skills
	Real Estate Agent	<ul style="list-style-type: none"> - Lack of basic communication skills - Inadequate documentation skills - Lack of networking skills
Metallic & Engineering Products	Supervisor	<ul style="list-style-type: none"> - Inadequate interpersonal skills - Inadequate understanding of quality concepts - Inadequate understanding of product specifications
	Workman/ Operator	<ul style="list-style-type: none"> - Insufficient understanding of discipline, industrial rules, work related procedures - Inadequate understanding of the end-use of the product - Inadequate ability to carry out basic troubleshoot in case of machine breakdown
	Sales/ Marketing	<ul style="list-style-type: none"> - Inadequate ability to liaison/ negotiate with counterparts - Inadequate understanding of the Indian real estate / infrastructure segments
Tourism, hospitality & travel	Hotel Manager	<ul style="list-style-type: none"> - Inadequate communication skills - Inadequate ability to handle complaints - Inadequate personal presentation skills
	Guide	<ul style="list-style-type: none"> - Inadequate communication skills - Insufficient knowledge of tourist places - Inadequate skills of crises management and time management
	Driver	<ul style="list-style-type: none"> - Lack of adequate communication skills - Lack of awareness on driving rules and regulations - Inadequate knowledge of safety norms
	Bell boy	<ul style="list-style-type: none"> - Inadequate curtsy level - Lack of discipline - Insufficient communication skills
Banking, Financial Services & Finance	Field Executive/ Agent	<ul style="list-style-type: none"> - Poor knowledge of banking products - Poor communication skills - Poor selling skills
	Relationship Manager	<ul style="list-style-type: none"> - Lack of networking skills - Poor understanding of products & services

Sector	Level	Skill Gaps
Organized Retail	Billing Associate	<ul style="list-style-type: none"> - Inadequate knowledge of software related to transaction processing - Inadequate soft skills
	Sales person	<ul style="list-style-type: none"> - Inadequate product specific knowledge - Inadequate communication skills - Inadequate understanding of various schemes
Transportation & Logistics	Driver	<ul style="list-style-type: none"> - Lack of etiquette & courtesy towards customers - Lack of time management & communication skills
	Packaging - Worker	<ul style="list-style-type: none"> - Inadequate understanding of quality & cost reduction in packaging - Lack of time management skills

4.18.6. Youth Aspirations

Key observations from discussions with youth in the district are highlighted below:

- Most of the students with whom we interacted during the focus group discussions (FGD) aspire to get jobs in the PSEs or Indian Railways. However, as PSUs and Indian Railways conduct their own entrance examinations to select candidates and campus selection facility in the institutes in which they are studying are minimal, most of pass out students apply for jobs in the open markets.

Youth in Ranchi prefer job security and aspire to get job opportunities in the Government jobs preferably with the PSEs or Indian Railways.

Source: Focus Group Discussion, Ranchi

- Students highlighted lack of quality faculty & instructors and old & outdated machinery in the workshop as major barriers in skill development in the institutes. Also, lack of soft skills training has also been identified as a hindrance for many students to get jobs in the open market.
- Students highlighted the need for curriculum update in line with market requirements and importance of practical training in skill development.

Perception of other key stakeholders:

As per industry representatives, the students passing out from the local ITIs/ ITCs & Polytechnic institutions do not meet the quality requirements of the organization. Small industries do not have resources to invest in the students' training; so they prefer students who have prior experience/ training in the trade. Institutes should align their courses in line with market requirements and should engage with industry for apprenticeships.

4.18.7. Recommendations

Key observations from the analysis above are highlighted below:

- Priority industries for skill development in secondary sector are (i) Building and Construction (ii) Basic Iron and Steel & (iii) handloom & handicrafts
- Priority industries for skill development in tertiary sector are (i) Tourism Hospitality and Travel Trade (ii) Real Estate Services (iii) Banking Insurance & Finance

Considering economic and skill landscape of Ranchi & Khunti districts, the proposed action plan would consist of the following priority areas:

Table 4.209– Recommendations and action points for Ranchi & Khunti

Stakeholder	Action points
NSDC	<ul style="list-style-type: none"> Promoting partnerships with skill development players including private sector with focus on the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate services - Banking, insurance & finance - Tourism, hospitality & travel
Skill development institutes (ITI/ ITC)	<ul style="list-style-type: none"> Evaluate & update the course content as per industry requirements with focus on placement opportunities in the following sectors: <ul style="list-style-type: none"> - Building & construction - Real estate& business services - Basic iron & steel industry - Non-metallic mineral products industry Update machinery & provide manuals in workshops for practical classes Develop short term courses in collaboration with industry players for emerging sectors like <ul style="list-style-type: none"> - Organised retail - Banking, insurance & finance - Tourism, hospitality & travel - Transportation & logistics - Drivers Focus on developing communication & basic IT skills of the students
Government	<ul style="list-style-type: none"> Establish training initiatives in PPP mode for coal & steel industries in high industrial areas of Bokaro, Dhanbad, Jamshedpur & Ranchi to ensure proximity of trained labour to industrial centres Explore arrangements including public private partnerships (PPP) for operating the vocational training institutes Engage with industry players like SAIL, Coal India & HEC and industry associations like CII to develop vocational training curriculum with focus on increasing employability of passing out students Focus on training in agricultural products processing and animal husbandry including dairy & poultry as additional source of income Focus on supporting creation of micro-enterprises/ ancillaries for minerals sector in the district
Industry	<ul style="list-style-type: none"> Collaborate with skill development institutes for updating course content & creating linkages for placement Support the skill development institutes in capacity building of trainers & facilitate access to modern workshops/ tool rooms Provide training, including modular employability skill training, for specific high demand sectors such as <ul style="list-style-type: none"> - Coal & Steel industry - Building & construction

5. Appendices

5.1 List of Key Government Officials Met

Key Government Officials		
#	Name	Designation, Department
1.	Mr. A.P. Singh, IAS	Secretary, Department of Industries
2.	Mr. D.P. Vidyarthi	Deputy Director, Department of Industries
3.	Mr.SamromBarla	Deputy Director, Department of Industries
4.	Mr.VishwanathSaha	Director, Department of Labour, Employment & Training
5.	Mr.Umesh Prasad Singh	Deputy Labour Commissioner, Department of Labour, Employment & Training
6.	Mr.Arun Kumar	Director, Department of Science & Technology
7.	Mr. K.K. Sahu	Deputy Director, Department of Science & Technology
8.	Mr.D.N.Ojha	Director (Higher Education), Department of Human Resources
9.	Mr. B.B.A. Muthy	Deputy Secretary, Department of Human Resources
10.	Mr.Alok S Kachap	Deputy Secretary, Department of Human Resources
11.	Mr.D.K.Saxena	Director, Directorate of Economics & Statistics
12.	Mr.Pravin Kumar Gupt	Joint Director, Directorate of Economics & Statistics
13.	Mr. A.K. Ambastha	Under Secretary, Department of IT
14.	Mr. S.I. Minz	Assistant Director, Department of Mines & Geology
15.	Mr. Ram Kumar Sinha	Deputy Secretary, Department of Health, Medical Education & Family Welfare
16.	Dr.Pravin Chandra	Director-in- Chief (Health Services), Directorate of Health
17.	Mr.AloisLakra	Deputy Secretary, Department of Art, Culture, Sports & Youth Affairs
18.	Mr.Brijesh Kumar Swarnkar	Assistant Director, MSME-DI, Ranchi
19.	Mr. S.K. Rai	Assistant Director, NSSO
20.	Mr.Sant Ram	Chief Operations, Census Office, Ranchi
21.	Mr. H. Horen	Chief Inspector, Chief Inspector of Factories
22.	Ms. Priyanka Maiti	Officer, Jharkhand Agency for Promotion of IT, Department of IT

5.2 List of Key Industry and Industry Association Representatives Met

#	District	Industry/ Industry Associations	Name	Designation
1	Bokaro	Bokaro Chamber of Commerce	Mr.SanjaiBaid	President
2	Bokaro	Jharkhand Small and Tiny Services & Business Enterprise Association	Mr.Kumdan Kumar Upadhyay	President
3	Bokaro	Bokaro Steel Plant	Mr. B. Mukhopaddhyay	GM-HRD
4	Bokaro	Bokaro Steel Plant	Mr.Basant Thakur	GM-Personnel
5	Bokaro	Associated Plates & Vessels Private Limited	Mr.Somdev Mukherjee	General Manager
6	Bokaro	Ashoka Foundry & Equipment	Mr.Upendra Kumar	Manager - Marketing
7	Bokaro	Ashoka Foundry & Equipment	Mr.A.K.Mani	Manger – HR
8	Bokaro	District Industries Centre	Mr.ShriNivas Prasad	GM
9	Giridih	Chamber of Commerce	Mr.Gunwant Singh Saluja	President
10	Giridih	Mougia Steel Ltd.	Mr.Harindar Singh Saluja	Director
11	Giridih	Mougia Steel Ltd.	Mr.Rajib Singh	General Manager
12	Giridih	District Industries Centre	Mr.Pramod Kumar Lohani	General Manager
13	E. Singhbhum	Chaibasa Chamber of Commerce and Industries	Mr. Anil Khirwal	President
14	E. Singhbhum	District Industry Centre	Mr.Ramcharan Prasad	General Manager
15	E. Singhbhum	Rungta Mines Limited	Mr.Vijayanta Kumar Sinha	General Manager
16	Chatra	District Industry Centre	Mr.Amrinder Kumar	
17	Deoghar	Deoghar Chamber of Commerce	Mr. Rajesh Rajpal	President
18	Deoghar	Shree Hanuman Foundry Works	Mr. Shiv Kumar Shroff	Director
19	Deoghar	District Industry Centre	B.N. Rauthar	General Manager
20	Dhanbad	Industry and Commerce Association	Mr. B.N. Singh	Chairman
21	Dhanbad	PawanUdyog Ltd.	Mr. Mahesh	Manager
22	Dhanbad	District Industry Centre	Mr.ShriNiwas Prasad	General Manager
23	Dumka	Dumka Chamber of Commerce & Industries	Mr.ShyamGhipiya	Chief Advisor
24	Dumka	District Industry Centre	Mr.Ramesh Prasad Gupta	General Manager
25	Garhwa	Garwah Chamber of Commerce & Industries	Mr.Vinod Kumar Kamtapuri	President
26	Godda	Godda Chamber of Commerce & Industries	Mr.Mukesh Kumar	President
27	Godda	Jharkhand Hume Pipe Factory	Mr.SanjeevAnand	Proprietor
28	Godda	District Industry Centre	Mr.BanifasTigga	General Manager
29	Gumla	Chamber of Commerce, Gumla	Mr.Padam Kumar Saboo	President
30	Gumla	M/S M Bricks	Mr.Ajit Kumar	Owner
31	Gumla	District Industry Centre	Mr.BhideyMunda	General Manager
32	Hazaribagh	Federation of Jharkhand Chamber of Commerce & Industry	Mr.Vinod Kumar Namani	Regional Vice President
33	Hazaribagh	District Industry Centre	D.K. Ekka	Industry Extension Officer
34	Jamshedpur	M/s Shipra Auto Pvt. Ltd.	Mr.Shekhar Kumar Singh	Managing Director
35	Jamshedpur	Tata Steel Limited	Mr. Amit Kumar	Head, Technical Training

#	District	Industry/ Industry Associations	Name	Designation
36	Jamshedpur	Singhbhum Chamber of Commerce & Industries	Mr. Vijay AnandMoonka	General Secretary
37	Jamshedpur	District Industry Centre	Mr.P.K.Ambasatta	Project Manager
38	Koderma	Chamber of Commerce	Mr.Shyam Sunder Singhaniya	Chairman
39	Koderma	Chanda Roller Flour Mills Pvt. Ltd.	Mr. Rahul Jain	Managing Director
40	Lohardaga	Badla Bricks	Mr.Pramod Kumar Mahato	Owner
41	Lohardaga	Chamber of Commerce	Mr. Vijay Jaiswal	President
42	Lohardaga	District Industry Centre	Mr.NiranjanTirki	General Manager
43	Pakur	BPA Engineering Equipment Ltd.	Mr. Vishal Agarwal	Director
44	Pakur	Chamber of Commerce	Mr.Nirmal Jain	President
45	Pakur	District Industry Centre	Mr.Baleshwar Ram	Functional Manager
46	Palamu	Chamber of Commerce	Mr.Nilesh Chandra Agarwal	Executive Member
47	Palamu	Singhal Brothers	Mr.Shilendra Kumar Agarwal	Managing Director
48	Palamu	District Industry Centre	Mr.Prem Kumar Chowdhuri	General Manager
49	Ranchi	Jharkhand Small Industries Association	Mr.Arun Kumar Khemka	Chairman
50	Ranchi	Shri Ram Wire Products	Mr.AnjayParchewala	Executive Director
51	Ranchi	Heavy Engineering Corporation	Mr.AnugrahJha	DGM, HR
52	Ranchi	Capitol Hill	Mr.Narendra Singh	Residential Manager
53	Ranchi	Mecon Ltd.	Dr. S. Chatterjee	DGM, HRD
54	Ranchi	Allahabad Bank	Mr.Sudesh Kumar	AGM (Branch Manager)
55	Ranchi	Bhushan Steel	Mr. A.K. Saxena	Executive Director
56	Ranchi	Software Technology Parks of India	Mr. Siddharth Kumar Rai	Assistant Director & Officer in Charge
57	Ranchi	Reliance Fresh	Mr.Ashwin	Store Manager
58	Ranchi	District Industry Centre	Mr.LalR.K.NathSahdev	General Manager
59	Sahebganj	Chamber of Commerce	Mr.Santosh Kumar Singh	Secretary
60	Sahebganj	Shiv Bhartiya Engineering Works	Mr.ChetanBhartia	General Manager
61	Sahebganj	District Industry Centre	Mr.Bindeshwari Das	General Manager

5.3 List of Key Education and Skill Institutes Met

#	District	Education/ Skill Development Institute	Name	Designation
1.	Bokaro	Guru Govind Singh Educational society's Technical Campus	Mr.P SuvhaRao	Managing Director
2.	Bokaro	ITI, Bokaro	Mr.Jaykantprasad Singh	Principal
3.	E. Singhbhum	Women ITI	Mr.Sadhu Charan	
4.	E. Singhbhum	DEO ITI	Mr.Bhusan Kumar Pankaj	Director
5.	Chatra	Charta College	Mr.Tej Narayan Singh	Principal
6.	Deoghar	Bright ITC	Mr.Bhawesh Kumar Ayyar	Principal
7.	Dhanbad	Vishweshwariya ITC	Mr.LalMohan Prasad	Senior Principal
8.	Dhanbad	Industrial Training Center, Dhanbad (AyogikPrashikkshansangsthan)	Mr.Raghunath Prasad Singh	Principal
9.	Dumka	Women ITI	Mr.Deepak Kashyap	Principal
10.	Dumka	Dr.Rajendra Prasad ITC	Mr. D.P Ray	Principal
11.	Garhwa	ITI, Garwah	Mr.Jay Kant Prasad	Principal
12.	Giridih	ITI, Giridih	Mr.Raghunath Prasad Singh	Principal
13.	Gumla	Gumla ITC	Mr.NityanandaVidya	Principal
14.	Gumla	NICE ITC	Mr. Herman Bhengra	Principal
15.	Hazaribagh	Government Women ITI	Mr.Jay Prakash Choudhary	Electronics Instructor
16.	Hazaribagh	Dr.Rajendra Prasad ITC	Mr.Prakash Sharma	Principal
17.	Jamshedpur	Rambha ITI	Mrs.Rambha Devi	Director
18.	Jamshedpur	ITI Jamshedpur	Mr.Balveer Singh	Assistant Director Training
19.	Koderma	Kodarma ITC	Mr.Sanjib Kumar	Principal
20.	Koderma	Zarf ITC	Mr.Ajay Kumar	Fitter Instructor
21.	Pakur	Government ITI	Mr.Shubhas Chandra Singh	Principal
22.	Palamu	Government ITI	Mr.Jay Kant Prasad Singh	Principal
23.	Palamu	Sumitra ITC	Mr.Bhola Prasad Sahu	Principal
24.	Ranchi	BISMI Industrial training Center	Mr.TrilokiNath	Principal
25.	Ranchi	Women ITI, Hehal	Mrs.AnjuAggrwal	Principal
26.	Ranchi	Apparel Training and Design Center	Ms.Sangeeta Sharma	Program Coordinator
27.	Ranchi	Birsa Agricultural University	Dr.Nibha Bara	Head of Department, Extension Training, Faculty of Agriculture
28.	Ranchi	State Agricultural Management & Extension Training Institute	Mr. P B Singh	Assistant Director
29.	Ranchi	Government ITI (General), Ranchi	Mr.Devandra Prasad	Principal
30.	Ranchi	Ranchi University	Mr.Ugresh Sinha	PA to Registrar
31.	Ranchi	Xavier Institute of Social Service	Mr.Sanjeev Bajaj	Chief Coordinator - Placements
32.	Ranchi	Indian Institute of Management, Ranchi	Mr. Ashish Hajela	Placement Officer
33.	Ranchi	Indian Institute of Management,	Dr.Subir Verma	Professor

#	District	Education/ Skill Development Institute	Name	Designation
		Ranchi		
34.	Sahebganj	Government ITI	Mr.ParmanandPaswan	Principal

5.4 List of Districts in which FGDs were conducted

#	Name of the District
1.	Dumka
2.	Deoghar
3.	Godda
4.	Pakur
5.	Sahebganj
6.	Hazaribagh
7.	Koderma
8.	Chatra
9.	Giridih
10.	Bokaro
11.	Dhanbad
12.	Ranchi
13.	Lohardaga
14.	Gumla
15.	Palamu
16.	Garhwa
17.	E. Singhbhum
18.	W.Singhbhum

5.5 Estimation of Incremental Manpower Demand for Bokaro

(1) Anticipated growth rate (CAGR)

The historical growth rate (CAGR) is calculated based on the past GDDP estimates (1999 -2009) as presented in the table below:

#	Sector (Rs. Lakhs)	1990-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	CAGR
1.	Agriculture and allied activities	8749	6495	8327	7369	7522	8394	7258	8727	9196	9770	1.2%
2.	Mining & quarrying	47460	47859	44398	45247	46439	51261	52973	49654	49976	50300	0.6%
3.	Manufacturing (registered)	71875	39394	34007	58745	65488	75717	87505	108039	112934	118050	5.7%
4.	Manufacturing (unregistered)	7203	7439	7156	7490	7869	8045	8170	9719	10144	10588	4.4%
5.	Electricity gas& water supply	16145	15354	17756	15236	15149	17271	12012	16845	16948	17051	0.6%
6.	Building and Construction	19609	19009	23139	19659	24171	30251	33743	35436	38562	41964	8.8%
7.	Trade hotel and restaurants	23506	20019	21358	23319	24410	32227	31879	34365	36281	39885	6.1%
8.	Railways	7699	8641	8874	9042	10989	12145	12969	15550	16995	18763	10.4%
9.	Transport & Logistics	6756	6328	6325	6820	7029	7907	8601	9622	10120	10645	5.2%
10.	Media & Communication	3284	3496	3297	4324	5243	6252	7853	10246	14358	15170	18.5%
11.	Banking and Insurance	4813	5330	6545	6262	6073	6416	6886	8400	9861	10786	9.4%
12.	Real, Ownership of Dwel, B. Ser, Legal	9677	10319	10799	11356	12720	13588	14617	16822	18205	19701	8.2%
13.	Public Administration	7531	11784	13151	8479	14561	12611	11634	11342	12207	13139	6.4%
14.	Other Services	20379	22909	21679	20664	16386	23164	25452	28716	30158	31673	5.0%

Estimation of future growth rate of the sectors

The anticipated future growth rate of the sector is estimated based on historical growth rate and sector outlook as per primary interactions& literature survey.

#	Sector	CAGR	Sector Outlook	Anticipated growth rate
1.	Agriculture and allied activities	1.2%	2.0%	1.2%
2.	Mining & quarrying	0.6%	3.0%	0.6%
3.	Manufacturing (registered)	5.7%	10.0%	6.5%
4.	Manufacturing (unregistered)	4.4%	8%	5%
5.	Electricity gas& water supply	0.6%	3.0%	2%
6.	Building and Construction	8.8%	10.0%	9%
7.	Trade hotel and restaurants	6.1%	8.0%	6.5%
8.	Railways	10.4%	10.0%	9.0%
9.	Transport & Logistics	5.2%	7.5%	6.0%
10.	Media & Communication	18.5%	15.0%	15.0%
11.	Banking and Insurance	9.4%	10.0%	9.5%
12.	Real, Ownership of Dwel, B. Ser, Legal	8.2%	10.0%	8.0%
13.	Public Administration	6.4%	5.0%	7.0%
14.	Other Services	5.0%	5.0%	7.0%

(2) Projection of Sector level GDDP for 2012-22

Sector level GDDP is projected as per the anticipated sector growth rates in the sectors. The table below presents the projected sector level GDDP till 2022

#	Sector (Rs. Lakhs)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1.	Agriculture and allied activities	10128	10244	10362	10481	10602	10724	10847	10972	11098	11226	11355
2.	Mining & quarrying	51260	51567	51877	52188	52501	52816	53133	53452	53772	54095	54420
3.	Manufacturing (registered)	140313	149363	158997	169252	180169	191790	204161	217329	231347	246269	262153
4.	Manufacturing (unregistered)	12105	12704	13333	13993	14686	15413	16176	16977	17817	18699	19625
5.	Electricity gas & water supply	17604	17956	18316	18682	19055	19437	19825	20222	20626	21039	21460
6.	Building and Construction	54166	59041	64355	70147	76460	83342	90843	99018	107930	117644	128232
7.	Trade hotel and restaurants	47751	50831	54110	57600	61315	65270	69480	73961	78732	83810	89216
8.	Railways	24917	27147	29577	32224	35108	38250	41674	45404	49467	53895	58718
9.	Transport & Logistics	12483	13232	14026	14868	15760	16706	17708	18770	19897	21090	22356
10.	Media & Communication	24511	28188	32416	37279	42871	49301	56696	65201	74981	86228	99162
11.	Banking and Insurance	14124	15459	16919	18518	20268	22184	24280	26574	29086	31834	34843
12.	Real, Ownership of Dwel, B. Ser, Legal	24919	26912	29065	31390	33901	36614	39543	42706	46122	49812	53797
13.	Public Administration	15910	17023	18215	19490	20854	22314	23876	25547	27336	29249	31297
14.	Other Services	37379	39996	42795	45791	48996	52426	56096	60023	64224	68720	73531

(3) Estimate sector level employment in 2001

Base year contribution per person employed in the sector(calculated as per the sector GDDP and employment in the sector) is presented in the table below

#	Sector	GSDP (Rs. Lakhs)	No. of persons employed	GSDP contribution per person
1.	Agriculture and allied activities	543069	6862213	0.079
2.	Mining & quarrying	429725	309860	1.387
3.	Manufacturing & Repairs	546380	879815	0.621
4.	Electricity gas & water supply	68577	29890	2.294
5.	Building and Construction	210508	327430	0.643
6.	Trade hotel and restaurants, Retail & Wholesale	288882	608780	0.475
7.	Transport, storage & Communications	258117	284290	0.908
8.	Banking and Insurance, Real estate , Business activities	220476	62260	3.541
9.	Other Services	528373	614320	0.860

(4) Estimation of sector level employment at the district in 2001-2011

The table below highlights the estimated sector level employment till 2011

#	Sector	2001	2009	2010	2011
1.	Agriculture and allied activities	228334	257509	260972	264483
2.	Mining & quarrying	34509	36257	36457	36658
3.	Manufacturing (registered)	75413	105177	109137	113247
4.	Electricity gas& water supply	6692	6942	6970	6998
5.	Building and Construction	29567	60116	65047	70384
6.	Trade hotel and restaurants	42187	63229	66137	69178
7.	Railways	9517	13491	14025	14579
8.	Transport & Logistics	6970	8307	8471	8637
9.	Media & Communication	3850	7104	7604	8139
10.	Banking and Insurance	1505	3727	4122	4558
11.	Real, Ownership of Dwel, B. Ser, Legal	2914	8687	9809	11074
12.	Public Administration	13701	7901	7433	6992
13.	Other Services	26635	42843	45167	47616

(5) Projection of sector level employment till 2022

Sector level employment has been projected taking into account the sector level employment elasticity. The project sector level employment is presented in the table below:

#	Sectors	Employment Elasticity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1.	Agriculture and allied activities	1.09	267707	270880	273998	277058	280057	282993	285863	288665	291395	294051	296632
2.	Mining & quarrying	0.85	36840	37017	37191	37360	37524	37684	37840	37991	38137	38278	38415
3.	Manufacturing	0.75	117956	122723	127541	132398	137286	142195	147113	152030	156934	161813	166656
4.	Electricity gas& water supply	0.67	7090	7179	7268	7354	7440	7523	7604	7684	7762	7837	7911
5.	Building and Construction	0.93	76060	81964	88076	94375	100838	107437	114140	120915	127723	134526	141282
6.	Trade hotel and restaurants	0.76	72446	75739	79047	82358	85661	88944	92194	95399	98545	101619	104608
7.	Railways	0.38	15062	15546	16031	16517	17002	17486	17967	18445	18918	19386	19847
8.	Transport & Logistics	0.38	8829	9019	9208	9395	9580	9763	9943	10120	10294	10465	10632
9.	Media & Communication	0.38	8591	9054	9528	10011	10504	11005	11513	12026	12543	13063	13584
10.	Banking and Insurance	1.13	5032	5540	6083	6662	7276	7926	8611	9330	10082	10865	11677
11.	Real, Ownership of Dwel, B. Ser, Legal	1.57	12427	13903	15506	17241	19112	21119	23265	25550	27971	30527	33210
12.	Public Administration	-0.93	6539	6117	5724	5358	5017	4700	4403	4127	3869	3629	3405
13.	Other Services	1.08	51118	54772	58573	62519	66600	70812	75143	79584	84124	88749	93446

Projection of sector level employment as per NSDC Priority Sectors

Employment in the Manufacturing Sector is further sub-divided based on the following sources:

- Jharkhand Development Report – 2012: Indicus Analytics
- District Industrial Profile – Bokaro (MSME-DI, Ranchi)

#	Sector	% Contribution
1.	Basic Iron & Steel	46%
2.	Food Processing	16.64%
3.	Non – Metallic mineral products	11.41%
4.	Textile and Garments	6.9%
5.	Automobile/ Auto components	4.1%
6.	Wood & wood based furniture	3.9%
7.	Chemical and Pharmaceuticals	1.4%
8.	Leather & Leather goods	0.9%
9.	Other Manufacturing	8.5%

Employment in the Other Services Sector is further sub-divided into healthcare services, educational services & IT/ ITES based on the following assumptions:

#	Sector	Assumptions
1.	Healthcare Services	Estimation of manpower demand in healthcare is as per Indian Public Health Standard 2012 guidelines which provides details of hospitals required based on population and the optimal manpower requirements in the hospitals.
2.	Educational Services	Projected no. of children enrolled in school was estimated based on past gross enrollment ratios and projected children in the age group 5-19. The no of teachers required was calculated based on recommended student to teacher ratio as per NSDC skill gap report on Education/ Skill Development sector.
3.	IT/ ITES	Most of the IT/ITES professionals are engaged in e-governance initiatives by various government departments, which is expected to remain the same for coming years. Small IT/ITES companies are expected to provide process outsourcing, software support and maintenance services to various players.

Based on the above assumptions manpower requirement as per NSDC priority sector is presented in the table below:

#	Sector	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1.	Agriculture & allied activities	264483	267707	270880	273998	277058	280057	282993	285863	288665	291395	294051	296632
2.	Mining and Quarrying	36658	36840	37017	37191	37360	37524	37684	37840	37991	38137	38278	38415
3.	Basic Iron and Steel	52093	54260	56453	58669	60903	63152	65410	67672	69934	72190	74434	76662
4.	Non Metallic Mineral Products	12921	13459	14003	14552	15107	15664	16224	16786	17347	17906	18463	19015
5.	Automobile/ Auto components	4621	4813	5007	5204	5402	5602	5802	6002	6203	6403	6602	6800
6.	Electricity, Gas & Water Supply	6998	7090	7179	7268	7354	7440	7523	7604	7684	7762	7837	7911
7.	Textile and Garments	7855	8182	8512	8847	9184	9523	9863	10204	10545	10885	11224	11560
8.	Leather and Leather Goods	1095	1140	1186	1233	1280	1327	1375	1422	1470	1517	1564	1611
9.	Chemical & Pharmaceuticals	1621	1688	1756	1825	1895	1965	2035	2105	2176	2246	2316	2385
10.	Other Manufacturing	9718	10122	10531	10944	11361	11780	12202	12624	13046	13466	13885	14301
11.	Building and Construction	70384	76060	81964	88076	94375	100838	107437	114140	120915	127723	134526	141282
12.	Food Processing/ Cold Chain/ Refrigeration	18844	19628	20421	21223	22031	22844	23661	24480	25298	26114	26926	27732
13.	Wood & wooden furniture	4478	4665	4853	5044	5236	5429	5623	5818	6012	6206	6399	6591
14.	IT/ ITES-BPO services	421	413	552	701	859	1025	1200	1382	1572	1769	1973	2182
15.	Tourism Hospitality and Travel Trade	69178	72446	75739	79047	82358	85661	88944	92194	95399	98545	101619	104608
16.	Transportation & Logistics/ warehousing/ packaging	23217	23890	24565	25239	25912	26582	27249	27910	28565	29212	29851	30479
17.	Organized Retail	841	826	1105	1402	1717	2050	2399	3056	3740	4450	5263	6100
18.	Real Estate Services	11074	12427	13903	15506	17241	19112	21119	23265	25550	27971	30527	33210
19.	Media & Entertainment	8139	8591	9054	9528	10011	10504	11005	11513	12026	12543	13063	13584
20.	Healthcare Services	350	2795	2837	2879	2922	2966	3010	3055	3101	3147	3194	3242
21.	Banking Insurance & Finance	4558	5032	5540	6083	6662	7276	7926	8611	9330	10082	10865	11677
22.	Education/ Skill Development Services	12205	13023	13480	13926	14359	14776	15175	15554	15910	16240	16542	16812
23.	Other Services	40791	40599	42914	45389	48020	50801	53727	56498	59388	62387	65406	68514
	Total	664555	687708	711466	735787	760622	785915	811603	837618	863884	890317	916830	943326

(6) Estimate sector level incremental manpower demand

#	Sector	2010-11	2021-22	Incremental Demand
1.	Agriculture & allied activities	264483	296632	32149
2.	Mining and Quarrying	36658	38415	1757
3.	Basic Iron and Steel	52093	76662	24569
4.	Non Metallic Mineral Products	12921	19015	6094
5.	Automobile/ Auto components	4621	6800	2179
6.	Electricity, Gas & Water Supply	6998	7911	913
7.	Textile and Garments	7855	11560	3705
8.	Leather and Leather Goods	1095	1611	516
9.	Chemical & Pharmaceuticals	1621	2385	764
10.	Other Manufacturing	9718	14301	4583
11.	Building and Construction	70384	141282	70898
12.	Food Processing/ Cold Chain/ Refrigeration	18844	27732	8888
13.	Handlooms and Handicrafts	4478	6591	2113
14	IT/ ITES-BPO services	421	2182	1761
15	Tourism Hospitality and Travel Trade	69178	104608	35430
16	Transportation & Logistics/ warehousing/ packaging	23217	30479	7262
17	Organized Retail	841	6100	5259
18	Real Estate Services	11074	33210	22136
19	Media & Entertainment	8139	13584	5445
20	Healthcare Services	350	3242	2892
21	Banking Insurance & Finance	4558	11677	7119
22	Education/ Skill Development Services	12205	16812	4607
23	Other Services	40791	68514	27723
	Total	6,64,555	9,43,326	2,78,771

5.6 Estimation of Incremental Manpower Supply for Bokaro

(1) Project district population till 2022

Decadal and annual growth rate of population has been calculation based on censuses 2011 & 2001 data as presented in the table below

Year	Population
2001	17,77,662
2011	20,61,918
Decadal Growth Rate	15.99%
Annual Growth Rate	1.49%

The population of the district has been projected till 2022 based on annual growth rate of the population (2001-2022)

Year (%)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Population	2061918	2092731	2124005	2155746	2187961	2220658	2253843	2287524	2321709	2356404	2391618	2427358

(2) Estimate population in the age group of 15-59, working age population

Estimated distribution of population across age groups (Population Projection Report, NRHM)

Year (%)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0-14	28.60	27.92	27.25	26.58	25.91	25.23	24.56	23.89	23.22	22.54	21.87	21.20
15-59	65.63	66.08	66.53	66.98	67.44	67.89	68.34	68.79	69.25	69.70	70.15	70.60
60 and above	5.78	6.00	6.22	6.44	6.66	6.88	7.10	7.32	7.54	7.76	7.98	8.20

Estimated distribution of population by age groups is as per the table below

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0-14	598455	593114	587480	581544	575301	568740	561856	554638	547079	539171	530904
15-59	1373356	1403493	1434223	1465558	1497510	1530090	1563308	1597178	1631711	1666920	1702816
60 and above	120920	127398	134043	140859	147847	155013	162360	169893	177614	185527	193638
Total	2092731	2124005	2155746	2187961	2220658	2253843	2287524	2321709	2356404	2391618	2427358

(3) Estimate Labour Force

Labour Force Participation Rate has been estimated as per the table below:

Year - 2001	Population
Total Working Population	6,03,888
Working age Population (15-59)	10,30,028
Labour Force Participation Rate	55.75%

Estimation of Incremental Labour Force Supply

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Working age population	1353135	1373356	1403493	1434223	1465558	1497510	1530090	1563308	1597178	1631711	1666920	1702816
Labour Force	754336	765609	782410	799541	817009	834822	852984	871502	890384	909635	929263	949274

(4) Estimate incremental manpower supply

Year	2011 (I)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 (II)
Labour Force	754336	765609	782410	799541	817009	834822	852984	871502	890384	909635	929263	949274
Incremental manpower supply	1,94,938 (II-I)											

(5) Categorization of Incremental Labour Force into Skilled, Semi-Skilled and Minimally skilled

As per definitions of skill level across different sectors and estimated output of various educational institutions the incremental supply of labour force can be further subdivided into skilled, semi-skilled and minimally skilled as presented in the table below:

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Skilled	1916	2013	2116	2234	2348	2467	2593	2726	2865	3012	3166
Semi-Skilled	2411	2702	2966	3163	3255	3141	3243	3530	3643	3761	3885
Minimally skilled	6946	12085	12049	12071	12210	12554	12682	12626	12743	12855	12959
Total	11273	16801	17131	17468	17813	18162	18518	18882	19251	19628	20011

5.7 List of Key Secondary Sources

Key Secondary Sources		
#	Input	Data Source
1.	Sector wise Gross District Domestic Product	“Estimates of GSDP”, Directorate of Economics and Statistics, Jharkhand
2.	Sector wise base year employment in Jharkhand	Census 2001
3.	Anticipated growth rate of sectors	“Transforming Jharkhand”, BibekDebroy et al., 2011
4.	Sector Level employment elasticity	Contribution of Unorganized sector in India, NCEUS - 2008
5.	Sector level contributions of informal sector	NSS Report No. 519: Informal sector and conditions of employment in India
6.	Employment share of manufacturing in districts	Jharkhand Development Report – 2012: Indicus Analytics
7.	Employment in MSME sectors	District Industrial profile, MSME DIs
8.	District Population	Census 2011
9.	Projection of Population Composition	Population Projection Report, NHRM
10.	Labour Force Participation Rate	Census, 2001
11.	Enrolment and teachers in schools	DISE, SEMIS
12.	Enrolment and teachers in ITIs/ITCs	Department of Labour & Training, Jharkhand
13.	Enrolment in Polytechnics	Department of Science and Technology, Jharkhand
14.	Enrolment – professional courses	List of AICTE approved programmes

5.8 Sector Level Skill Definition

Key Secondary Sources				
#	Sector	Minimally skilled	Semi-Skilled	Skilled
1.	Auto and Auto Components	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
2.	Electronics and IT hardware	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
3.	Textiles and Clothing	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
4.	Leather and Leather goods	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
5.	Chemicals and Pharmaceuticals	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
6.	Gems and Jewellery	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
7.	Building, Construction and Real Estate	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
8.	Food Processing	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
9.	IT and ITES	Metric & below	Graduates/ Trained	B. Tech (Comp Science, IT), MCA
10.	Tourism, Hospitality and Travel	Metric & below	Graduates/ Trained	Graduates (Hotel Management & relevant courses) and Above
11.	Transportation, Logistics, Warehousing and Packaging	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
12.	Organized Retail	Metric & below	Graduates/ Trained	Post graduates, MBA
13.	Media and Entertainment	Metric & below	Graduates/ Trained	Post graduates, MBA
14.	Healthcare Services	N.A	B. Pharm, Assistants Trained by Govt	MBBS, BDS, PG in Medicine
15.	Banking, Financial Services and Insurance	Metric & below	Graduates/ Trained	B.Com, M.Com, MBAs, CA
16.	Education and Skill Development	N.A	Primary Teacher Training	B. Ed, M. Ed
17.	Construction Material and Building Hardware	Metric & below	ITI/ ITCs/ Trained	Graduates and Above
18.	Furniture and Furnishing	Metric & below	ITI/ ITCs/ Trained	Graduates and Above

5.9 Estimation of Manpower Demand in Unorganized Sectors

1. Agriculture

Total manpower demand in Agriculture (refer appendix 5.5) is subdivided into organized and unorganized sectors based on national level average as per the report “Contribution of Unorganized Sector in India, NCEUS – 2008”.

2. Drivers

The number of different vehicles registered during 2000-12 in Jharkhand was obtained from Transport Department, Government of Jharkhand. Based on the decadal growth in number of vehicles registered, estimated number of vehicles to be registered in Jharkhand was projected till 2022. The share of the district to the vehicles registered in Jharkhand for 2012-22 was assumed to be same as during 2000-12. Factoring in the useful life of a vehicle and the composition of different types of vehicles to be constant, the no of drivers in each district were calculated.

3. Security Guards & Domestic Help

Number of security guards and domestic help per household was estimated based on NSDC Skill gap report on unorganized sectors and household details in a district calculated from census 2011 data. Based on annual growth rate of population, incremental number of households was estimated for 2012-22. Number of security guards and domestic help required were projected based on the estimated incremental number of households in the district.

5.10 Mapping of Industries to Primary, Secondary and Tertiary Sectors

#	Sector	Industries
1.	Primary	<ol style="list-style-type: none"> 1. Agriculture and allied activities 2. Mining & quarrying
2.	Secondary	<ol style="list-style-type: none"> 1. Automobile/ Auto components 2. Electronic hardware 3. Textile & garments 4. Leather & leather goods 5. Chemicals & pharmaceuticals 6. Gems and jewellery 7. Building and construction 8. Food processing/cold chain/ refrigeration 9. Handlooms & handicrafts 10. Building hardware and construction material 11. Other manufacturing
3.	Tertiary	<ol style="list-style-type: none"> 1. IT or software services 2. ITES-BPO services 3. Tourism hospitality and travel trade 4. Transportation & logistics/warehousing/packaging 5. Organized retail 6. Real estate services 7. Media/ entertainment/ content creation/ animation 8. Healthcare services 9. Banking/ insurance/ finance 10. Education/ skill development services

5.11 Distribution of workers across skill level in various sectors

Distribution of workers across skill levels			
Sector	Skilled	Semi-Skilled	Un-Skilled
Agriculture and allied activities	3%	10%	87%
Mining and Quarrying	10%	20%	70%
Automobile/auto component	35%	45%	20%
Electronics hardware	61%	17%	22%
Textiles & garments	5%	10%	85%
Leather/ Leather goods	5%	5%	90%
Chemicals & pharmaceuticals	30%	50%	20%
Gems and jewellery	23%	32%	45%
Building & construction	10%	25%	65%
Food processing/ Cold Chain/ Refrigeration	5%	15%	80%
Handlooms & handicrafts	5%	5%	90%
Building & construction	10%	25%	65%
Food processing/ Cold Chain/ Refrigeration	5%	15%	80%
Handlooms & handicrafts	5%	5%	90%
IT / ITES Services	65%	30%	5%
Tourism hospitality and travel trade	40%	40%	20%
Transportation & logistics/ warehousing/ packaging	10%	20%	70%
Organised retail	25%	55%	20%
Real estate services	25%	25%	50%
Media/ Entertainment/ Broadcasting / Content creation/ Animation	50%	45%	5%
Banking/ Insurance/ Finance	85%	10%	5%
Basic Iron and Steel	20%	60%	20%
Non Metallic Mineral Products	20%	60%	20%
Electricity, Gas and Water Supply	25%	35%	40%
Other Manufacturing	15%	25%	60%
Other Services including Public Administration	75%	20%	5%



This report has been prepared by Deloitte Touche Tohmatsu India Private Limited (DTTIPL)

Our global network

Deloitte is the largest professional services firm in the world, with 200,000 employees in more than 150 countries providing audit, tax, consulting, enterprise risk and financial advisory services. In FY 2012, Deloitte earned a record \$31.3 billion USD in revenues.

Deloitte in India

Deloitte India offers a wide gamut of consultancy services and provides a comprehensive range of fully co-ordinated services under a single umbrella.

With over 20,400 professionals and through its offices in 13 prominent cities viz. Ahmedabad, Bengaluru, Chennai, Coimbatore, Goa, New Delhi, Hyderabad, Jamshedpur, Kochi, Kolkata, Mumbai, Pune, and Vadodara, Deloitte has a strong pan-India presence.

Our global delivery centres located in Hyderabad, Bengaluru, Mumbai and Gurgaon are staffed with highly capable teams who combine deep technical and subject matter expertise with strong industry and process focus.

Deloitte in India provides a combination of “close to client” and “delivery centre based” services to our clients which optimizes on delivery quality and cost.

We provide consulting services in the area of Strategy and Operations, Human Capital, Enterprise Applications, Technology Integration and GUIDe. The public sector group in India uses an acronym to describe its focus as GUIDe (Government, Utilities, Infrastructure and Development). The team essentially consists of industry specialists in Government policies, regulations and governance; energy and resources; transport and infrastructure such as roads, railways, ports, airports and industrial infrastructure; public service delivery such as public health, education and skill development.

Our in-depth understanding also enables Deloitte to remain at the cutting edge in terms of new product and process development offerings to our clients. Listed below are the key GUIDe service offerings:

- Policy Design and Review –
- Economic Analysis and Regulations -
- Institutional Strengthening -
- Performance Improvement -
- Partnership Management–
- Monitoring and Evaluation



Anindya Mallick Senior Director +91 (124) 6792895 anmallick@deloitte.com	Debashish Biswas Senior Manager +91 (33) 66121093 debiswas@deloitte.com	Vineet Kumar Manager +91 (124) 6792510 vineetkumar@deloitte.com	Rashmi Ranjan Behera Senior Consultant +91 (124) 6792000 rashmibehera@deloitte.com
--	--	---	---

For more details please contact:



National Skill Development Corporation

Block A, Clarion Collection, (Qutab Hotel)

Shaheed Jeet Singh Marg

New Delhi - 110 016

Tel: +91 11 4745 1600-10

Fax: +91 11 4656 0417

Email: skillgapstudies@nsdcindia.org

Industry Partner



www.nsdcindia.org