



N · S · D · C
National
Skill Development
Corporation

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



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1 Executive Summary

West Bengal is a key human resource hub in India, with the state being fourth most populous and second most densely populated regions in India. North 24 Parganas and South 24 Parganas district accounting for one fifth of total state population are focus districts in the state. Growing labour force within the state during the period 2012-22, is expected to spur net employment growth. However, the state is expected to witness significant growth in unskilled and informal job segments that would accommodate workers displaced from agriculture. In the near future, West Bengal has the potential to be a source for trained and quality manpower for the rest of India.

While national key growth sectors witnessing migration of workforce like IT-ITES, Retail Construction and Financial Services are top priorities for skill development in West Bengal, manpower intensive industries like Construction, Agri-Allied activities, IT-ITES, Food Processing and MSME units should be the local priorities for training manpower for local requirements within the state.

Key Recommendations for the Government include enhancing training capacities in districts with senior secondary, higher, as well as vocational education infrastructure in districts like Murshidabad, Jalpaiguri, Cooch Behar and West Medinipore. Districts with significant scope for organized employment growth and low vocational training densities like South 24 Parganas and North 24 Parganas could be targeted by private vocational training providers operating in B2C as well as B2B vocational training space, depending on the industry segments.

Anchor Institutes for catalyzing the growth of skill development in West Bengal should be a focus area for the Government. Some of the initiatives that should be taken up by the various stakeholders in skill development are: Upskilling industrial workers (mostly in MSME units) through short term training programs through Public Private Partnership, Incorporating Skill Training in mainstream K12 Education, Offering Demand-Driven Skill Training Programs and validating program effectiveness through tracer studies, and exploiting technology for trainer development activities as well as to reach out to remote areas. Further, District Employment Exchanges could be transformed into Skill Management Centers, offering seamless information sharing between employment providers, and employment seekers, after digitalizing the information.

NSDC can support training initiatives in the priority sectors of Construction, Food Processing, Education and Services. Besides these, NSDC could play an active role in bringing national/global level training providers to West Bengal by setting up a joint forum of NSDC Investee Training Companies, NSDC partner Training companies and representatives of Government of West Bengal

Private training providers can provide skill training in conjunction, using government endowment training schemes for sectors of Horticulture, Sericulture and Animal Husbandry. Cluster based skill training initiatives in PPP mode can be established near industry clusters, to ensure proximity to market for absorption of trained talent. There is also an opportunity to set up finishing schools for tertiary sectors with a high salary potential, where students will be willing to pay and learn – e.g.: IT&ITES and Banking and Financial Services – Skills in both technical and non-technical category.

2 Report Structure

The report is structured in the following manner

- **Part I** includes Foreword, Acknowledgements, Study Objectives, Approach and Methodology, Study Limitations and Executive Summary.
- **Part II** concentrates on the profile of West Bengal from a socio-economic and human capital perspective and state level recommendation on skill development in West Bengal
- **Part III** consists of detailed analysis of all districts of West Bengal from a socio-economic and human capital perspective and specific district level recommendations
- **Part IV** consists of Appendix

3 Acknowledgement

We are grateful to the Government of West Bengal and its various departments for their contribution towards the successful completion of the study. Our special thanks to Shri Sanjay Mitra, IAS and Shri Anil Verma, IAS who gave their time for focused and intense discussions.

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.

In addition, we convey our gratitude to all those who have, in some way or other, contributed towards the successful completion of this study.

4 Study Objectives

National Skill Development Corporation (NSDC) has mandated KPMG Advisory Services Pvt Ltd to undertake the District level Skill Gap Study of the state of West Bengal.

Study objectives would include a review of the following at an overall state and for all districts:

- Socio-economic profile – demography, economic profile of district by industry, state of education.
- 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 booth in the private sector and the government domain.
- Suggest suitable interventions/recommendations to address the skills gap.
- Recommendations have to be specific and actionable.
- Recommendations should also include specific initiatives that NSDC can take based on the mandate of the organization.
- Create an action plan with indicative timelines.

5 Approach and Methodology

KPMG has adopted a structured methodology to understand the skill ecosystem in West Bengal, assess incremental manpower needs, and collate insights, to arrive at recommendations to address the manpower skill gaps in the districts of the state – which in turn aggregate to provide a picture of the manpower skill gaps in the entire state.

Dimensions to assess skill gaps

Skill gaps were assessed under two dimensions, each of which required a different approach

- i. *Need for manpower skill development in organized sector:* This involved understanding skill gaps for formal/informal employment in both private and public enterprises among key manufacturing and services sectors in West Bengal.
- ii. **Need for manpower skill development for livelihood trades:** This involved understanding skill requirements to foster local livelihoods in primary, unorganized secondary and unorganized tertiary sectors in the districts.

Salient features of the study

Socio-economic Profile: Detailed analysis of demographic and socio economic factors such as population, population growth trends, population density, urbanization, overall literacy, female literacy, healthcare indices, school education, higher/vocational education, drop out rates, domestic product, per capita income, labour force participation, worker participation rate, migration, primary, secondary & tertiary sector profiles at a state and district level.

Sectoral Focus: The study focused on analysing manpower skilling requirements from the perspective of state level high growth sectors along with localized sectors that have potential at the district level. Since over two thirds of the population of West Bengal is involved in agriculture and agri-allied activities, the study also focused on manpower skilling requirements in these areas. Government policies of related sectors were studied, to understand thrust and growth targets for different sectors in the state, which would translate to priority sectors from the perspective of investment in manpower skilling as well.

Voice of Stakeholders: Detailed interactions were undertaken with various stakeholders, such as youth, private skill training providers, Government departments with skill training mandate and industry players - to understand their perspectives on manpower training and placement.

Manpower Supply-Demand Gap: Manpower supply-demand gap would be the difference between projected workforce participation and industrial manpower requirements, estimated as 2022.

Estimation of Manpower Supply: Based on estimations of population growth rate, working age group population and labour force participation, manpower supply in 2017 and 2022 has been estimated at district and state level.

Assessment of Existing Skill Training Capacity: Existing skill training capacity has been calculated based on sanctioned intake and enrolment in formal skill training institutions – government and private institutions offering Higher Education, Vocational Education (ITI/ ITC) and Diploma programs, at both the state and district levels along with Government sponsored training schemes. A dipstick study was undertaken at the district level to understand the institutional readiness of the skill training institutions.

Computation of Incremental Employment Potential: District level and state level data on categories of investment and employment were analyzed to arrive at the composition of economic activity, and their respective growth rate in each district. The proposed sectoral growth rate for the state of West Bengal and its districts, have been estimated based on a triangulation of several factors such as past growth trend, state government’s policy impetus to sectors, inputs from industry personnel, presence of industrial infrastructure besides a state-comparable analysis.

Labour elasticity estimates have been used to arrive at sector wise employment growth projections at the district and state level. Based on industry inputs and published literature, incremental employment potential has been classified as highly skilled, skilled, semi skilled and un-skilled. Further, critical skills required for the focus sectors have been highlighted, keeping in view the adoption of technology in industries.

Detailed approach for the human resource requirement estimation is given below.

Secondary Sector		
Sub Sectors	Factors considered for estimation of district wise incremental manpower during 2012-22	Key stakeholders
Large Scale Industries	<ul style="list-style-type: none"> Estimated district wise/sector wise investment during 2012-22 in a district from sector wise projected investment estimated based on analysis of <ul style="list-style-type: none"> Investment targets from state industries & Commerce department/West Bengal Industries Development Corporation (WB IDC) Achievability of targets from interaction with nodal bodies for identified priority sectors, historical trends (IEM data) Estimated sector wise manpower intensity based on historical trends for investment to employment ratio (IEM data) and inputs from industry bodies. 	WB IDC, Department of Commerce & Industry, industry bodies/players in identified priority sectors covering SEZs, Industrial clusters including <ul style="list-style-type: none"> Iron & Steel Engineering Leather & Leather Products Food Processing Petro Chemicals Gems & Jewellery Textile Auto-Auto Components Mineral based Industries

<p>MSMEs(Medium-Small Scale Enterprises)</p>	<ul style="list-style-type: none"> • Estimated sector wise MSME growth potential in the district from analysis of <ul style="list-style-type: none"> • Inputs from DIC on potential MSME sectors in the district • Historical trends in sector wise MSME growth from Entrepreneurship Memorandum-II (EM-II) • Qualitative inputs from MSME units. • Employment generation capacity in MSME units based on analysis of <ul style="list-style-type: none"> • EM-II data • Qualitative inputs from MSME units from identified priority clusters 	<p>District Industries Officer(DIC), Promoters of MSME units from key identified sectors including</p> <ul style="list-style-type: none"> • Metal Processing • Engineering Products • Jute • Tea • Silk • Gems & Jewellery • Handicrafts
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Tertiary Sector		
Sub Sectors	Factors considered for estimation of district wise incremental manpower during 2012-22	Key stakeholders
IT-ITES	<ul style="list-style-type: none"> Estimated district wise IT-ITES output(IT-ITES Exports/Domestic) growth during 2012-22 based on analysis of <ul style="list-style-type: none"> Output growth targets from Department of IT Historic achievement of growth targets, Interaction with IT-ITES industry bodies and key IT Players in West Bengal Estimated Manpower intensity in IT-ITES industry based <ul style="list-style-type: none"> Inputs from IT-ITES industry bodies Historic trends in output linked employment generation potential in IT-ITES Industry 	<ul style="list-style-type: none"> Department of Information Technology IT-ITES Industry bodies Key IT-ITES Players in West Bengal
Tourism	<ul style="list-style-type: none"> Estimated growth in number of tourist visits to major tourist destinations in the district during 2012-22 based on analysis of <ul style="list-style-type: none"> Growth targets from Department of Tourism Historic tourist arrival trends, Interactions with Tourism Industry Players. Employment generation potential for tourist visits based on Interactions with regional tourism development bodies 	<ul style="list-style-type: none"> Department of Tourism, Govt of West Bengal
Hospitality	<ul style="list-style-type: none"> District wise estimated growth in number of hotel rooms/restaurants during 2012-22, based on analysis of <ul style="list-style-type: none"> Growth of hospitality sector in the district based on contribution to district GDDP Inputs from State/Regional Hotel and Restaurant Associations Key growth drivers for hospitality like trends in per capita income, life style patterns. Employment potential estimates in hospitality industry 	<ul style="list-style-type: none"> Hotel and Restaurant Associations

Healthcare	<ul style="list-style-type: none"> • District wise estimated growth of healthcare institutions during 2012-22, estimated based on analysis • Universal healthcare access targets(number of PHCs/CHCs/SHCs/ beds /healthcare professionals per 1000 population) • Achievability of targets from proposed healthcare sector allocation and historic spending pattern • Estimated manpower intensity in healthcare institutions based on requirement of healthcare professionals (Number of doctors/nurses/ technician per number of hospital beds) 	<ul style="list-style-type: none"> • Department of healthcare along with nodal agencies for <ul style="list-style-type: none"> • Primary healthcare • Secondary healthcare • Tertiary healthcare • Private healthcare institutions in key districts.
Education	<ul style="list-style-type: none"> • Estimated district wise growth of education institutions during 2012-22 based on analysis • Universal and state level penetration targets for educational institutes (Schools/Higher Education Institutions /Vocational Education Institutions) • Achievability of targets from proposed fund allocation towards education • Manpower intensity in educational institutions, estimated based on human resource requirement in educational institutions(student to teacher ratio) 	<ul style="list-style-type: none"> • Department of School Education • Department of Higher Education • Department of Technical Education & Training
Logistics	<ul style="list-style-type: none"> • Projected contribution from logistics sector to the district economy based on analysis of <ul style="list-style-type: none"> • Historic growth trends in logistics sector to the district economy • Investment into logistics hubs (Railways/Roadways) • Interaction with key Logistics players • Employment potential in logistics industry based on analysis of <ul style="list-style-type: none"> • Current employment patterns in logistics industry • Inputs from key logistics players in West Bengal 	

Transportation	<ul style="list-style-type: none"> • Estimated district wise growth in number of commercial vehicles during 2012-22 based on analysis of historic trends in commercial vehicle registrations in the district and interactions with transportation companies • Estimated requirement of manpower per vehicle based on Inputs from transportation companies 	<ul style="list-style-type: none"> • Department of Transportation • Transportation Companies
Retail	<ul style="list-style-type: none"> • District wise estimated growth in organized/un-organized retail sector <ul style="list-style-type: none"> • Historic sub sector GDDP growth trends • Penetration of organized retail • Key growth drivers like per capita income trends, spending patterns • Employment generation potential estimates 	<ul style="list-style-type: none"> • Key organized retail players in West Bengal
Banking Sector	<ul style="list-style-type: none"> • Estimated district wise growth in number of bank branches during 2012-22 based on analysis of <ul style="list-style-type: none"> • Financial inclusion targets • Historic growth trends in deposits/loans • Manpower requirements in banking outlets 	
Financial Services	<ul style="list-style-type: none"> • Estimated growth in Non Banking Financial Companies (NBFC) in the district <ul style="list-style-type: none"> • Projected growth trends in bank deposits/loans • Historic growth trends in NBFC operations • Manpower intensity in NBFCs 	

Primary Sector		
Sub Sectors	Factors considered for estimation of district wise incremental manpower during 2012-22	Key Stakeholders
Agriculture	<ul style="list-style-type: none"> Based on analysis of district level crop pattern, irrigation pattern and extent of mechanization training potential in agriculture has been estimated 	<ul style="list-style-type: none"> Department of Agriculture, District Agricultural Officers, Agricultural promotion councils in major agro clusters of West Bengal
Agriculture Allied Activities	<ul style="list-style-type: none"> District wise/category wise estimated growth in Agri-Allied output by 2022 based on analysis of <ul style="list-style-type: none"> Growth targets from Nodal Agencies for key Allied activities in West Bengal Historic growth trends, funding allocation from nodal agencies Category wise employment potential in Agri-Allied activities 	<ul style="list-style-type: none"> Nodal Agencies for Individual Allied Sectors <ul style="list-style-type: none"> Horticultural Sericulture Department Fisheries Department

Assessment of Manpower Supply-Demand Gap: Supply-demand gap at the district and state level is estimated from the incremental manpower supply and projected employment growth during 2012-17 and 2017-22.

Research Methodology of the Study

The study was carried out through both primary and secondary research methodology, as well as qualitative and quantitative techniques.

Primary Research: Primary research inputs were collected through research techniques such as in-depth discussions, formal interviews, and Focus Group Discussions (FGD). Interview schedules, FGD Guidelines and points for field observations were developed in accordance to the study objectives. Consultation meetings were conducted with the following stakeholders to understand their perspectives on skill development.

Activity	Number of Interviews
Primary Interviews	250
FGDs across West Bengal	15
Number of Participating Students	300

State Government Officials: Department of Technical Education & Training, Directorate of Economics and Statistics, Department of Industries & Commerce, Department of Tribal Development, Department of Rural Development, WBIDC, Small Scale Industries Department, Department of Healthcare, Department of Transportation, Department of Tourism, Department of School Education, Department of Higher Education.

District Administration Officials: District Collector, Officials from Department of Rural Development , District Planning Office, District Employment Office, District Labor Office, SC/ST Welfare Department Officials and Women and Child Development Department, Sarpanch/Patwari from a sample of villages.

Skill Training Providers: Government ITI Principals and Training Officers, Private ITC Principals and Training Officers, NGOs involved in Skill Training, Financial Services Institutions involved in Skill Training

Skill Training Beneficiaries: Students who are currently pursuing vocational education, and focus groups such as BPL women trained under government programs

Industry Representatives: HR and Operations personnel from key industries and members representing industry associations in the respective districts

Migrant Labor : Dipstick survey in tribal belts and non-tribal belts of West Bengal

Focus Group Discussions (FGDs) were conducted with groups of 10-15 students in each district to understand their aspirations in terms of social life, career, expected economic standards of living and work related mobility - and the outcome was correlated to the level of industrialization of the district. The group discussions were carried out in a systematic manner with both skill training beneficiaries and skill training providers. The discussions were designed to be participatory in nature, and evoke inputs from all stakeholders, with due representation from various sections of trades and courses besides gender, both at trainer and trainee level.

Secondary Research: Secondary Data were collected from a number of sources including central, state and district government/administration agencies, especially the Department of Economics and Statistics, Department of Industries - and program specific information from departments with a mandate in skill training, and from studies commissioned by funding agencies, NGOs etc.

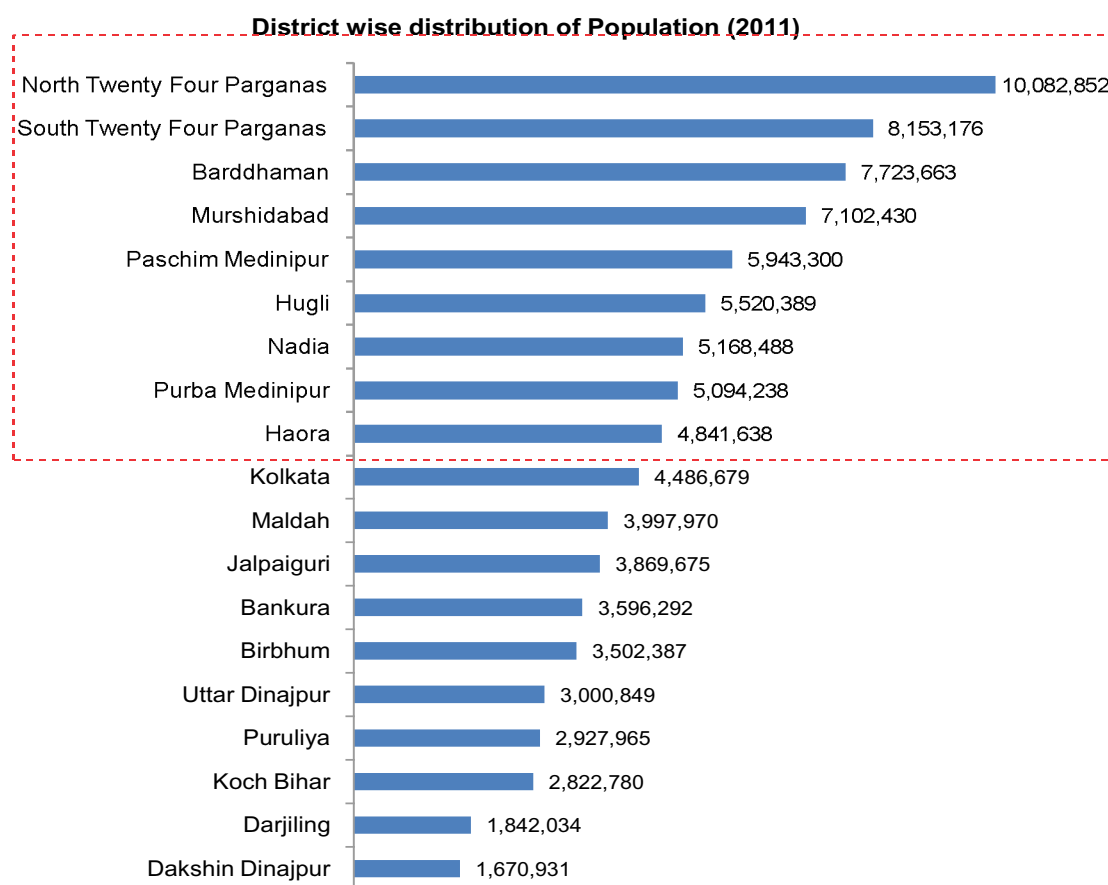
6 Growth of Human Capital in West Bengal

6.1 Social Profile

6.1.1 Demographics

West Bengal is the fourth populous state in India after Uttar Pradesh, Maharashtra and Bihar. As per Census 2011 estimates, the state has a population of 9.13 Crore¹ accounting for 7.55² percent of India population. Decadal growth of population has reduced to 13.93 percent³ during 2001-11 from 17.77 percent⁴ during 1991-2001. West Bengal is among the most populous regions in India with a population density of 1029 per sq.km⁵ in comparison national average of 382 per sq.km⁶. Availability of a large pool of human resource in the state makes West Bengal a manpower hub in India.

Distribution of population among 19 districts of the state has significant variations. North 24 Parganas, South 24 Parganas, Bardhaman, Murshidabad, Paschim Medinipur, Hugli and Nadia are key districts accounting for large portion of state population. While top ten most populous districts in West Bengal comprise over 70 percent⁷ of state population, North & South 24 Parganas account for one fifth⁸ of the total. District wise distribution of population is given in the chart.



¹ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

² http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

³ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁴ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁵ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁶ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁷ KPMG Analysis

⁸ KPMG Analysis

Further, concentration of population has regional variations in the state with the districts of Kolkata, North 24 Parganas having highest density on one hand and Purulia, Jalpaiguri on the other hand. However, Population density of less dense districts in the state is still higher than national average⁹ indicating the importance of state in meeting the manpower requirements of India. Classification of districts based on distribution of population as per average population density as high density, moderate density and low density regions is given in the table.

Category	Districts
Low Density (Below 800 Persons Per Sq.km)	Purulia, Darjeeling, Bankura, Jalpaiguri, West Medinipore, Dakshin Dinajpur, Birbhum
Moderate Density(800-1100 Persons Per Sq.km), State average-1029 Persons Per Sq.km	South 24 Parganas, Cooch Behar, Malda, Uttar Dinajpur, East Medinipore, Burdhan
High Density(Above 1100 Persons Per Sq.km)	Nadia, Murshidabad, Hooghly, North 24 Parganas, Howrah, Kolkata

Concentration of population in districts is closely related to level of urbanization with the growth of industrial and commercial activity in urban regions leading to population explosion in these regions. However, state average urbanization standing at 31.89 percent¹⁰ indicates the significance of rural population base in the state economy. Urbanization has witnessed rapid growth in West Bengal which has witnessed 29.90 percent¹¹ growth in urban population during 2001-11 in comparison to 7.73¹² percent growth in rural population during the same period. Malda district has recorded the highest decadal growth rate in urban areas at 129.07 per cent¹³ and Howrah district has shown the lowest decadal growth rate in rural areas at (-)16.22¹⁴, both indicating the rapid urbanization trends in the state. While there is a clear trend of urbanization in certain regions, districts like Bankura (91.64 per cent¹⁵ rural population), Cooch Behar (89.75 per cent¹⁶ rural population) and Purba Medinipur (88.35 per cent¹⁷ rural population) are still predominantly rural.

Historically West Bengal has been among the states which have consistently exceeded the national proportion of SCs with a significant share of SCs in total state population¹⁸. As per 2001 census, 23.02 percent¹⁹ of total state population consisted of Scheduled Castes and 5.5 percent²⁰ of Scheduled Tribes. There are around 60 Scheduled Caste communities in the state with Rajbanshi, Bagdi, Namasudra, Poundra, Bauri and Chamar / Muchi being the prominent ones. Cooch Behar, Jalpaiguri and South 24-Parganas have significantly high proportion of SC population. Among the Scheduled Castes in the state there are communities practicing craft works like wood & bamboo, blacksmithy, tanning and canning of skin. Jalpaiguri and Purulia are among the districts with significant tribal population. There are around 40 recognized Scheduled Tribes in the state of which three tribes- Lodha, Birhor and Toto, have been classified under "Special Primitive Tribal Groups". Aspiration towards seasonal work related migration, stemming from socio-economic backwardness and lack of sustainable local livelihood/employment opportunities in the region, has been observed amongst the surveyed tribal

⁹ KPMG Analysis

¹⁰ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹¹ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹² http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹³ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹⁴ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹⁵ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹⁶ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹⁷ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

¹⁸ KPMG Analysis

¹⁹ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

²⁰ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

population in the state. District wise variations in proportion of backward classes in total population are shown in the table.

District	Overall SC/ST Population ²¹	SC Population ²²	ST Population ²³
<i>Jalpaiguri</i>	56%	37%	19%
<i>Cooch Behar</i>	51%	50%	1%
<i>Dakshin Dinajpur</i>	45%	29%	16%
<i>Bankura</i>	41%	31%	10%
<i>Purulia</i>	40%	20%	20%
<i>Birbhum</i>	37%	30%	7%
<i>24-Parganas(S)</i>	33%	32%	1%
<i>Burdhwan</i>	33%	27%	6%
<i>Uttar Dinajpur</i>	33%	28%	5%
<i>West Midnapore</i>	33%	18%	15%
<i>Nadia</i>	32%	30%	2%
<i>Darjeeling</i>	29%	16%	13%
State Average	28.52%	23.02%	5%
Hooghly	28%	24%	4%
Malda	24%	17%	7%
24-Parganas(N)	23%	21%	2%
East Midnapore	15%	14%	1%
Howrah	15%	15%	0%
Murshidabad	13%	12%	1%
Kolkata	6%	6%	0%

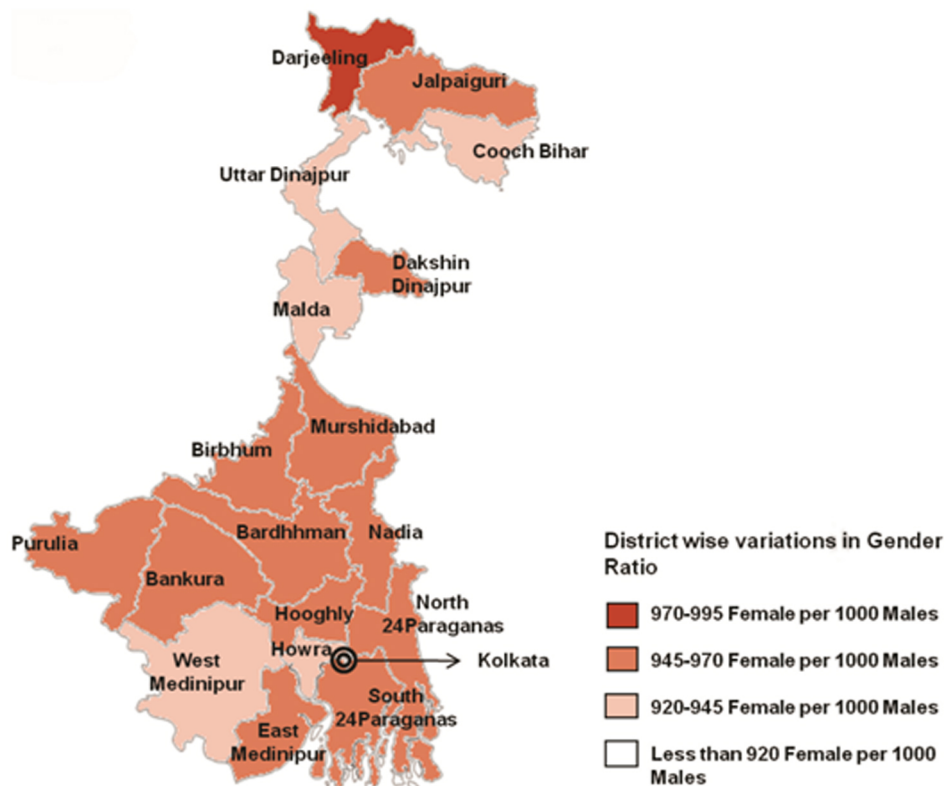
As per 2011 Census estimates, state has a gender composition of 947 females per 1,000 males²⁴ which has increased from 934 females per 1000 males²⁵ in 2001. Growing proportion of female population indicates increasing the increasing

²¹ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

²² www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

²³ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

prominence for women in the economy of West Bengal. Districts of Kolkata, Cooch Behar, Malda, West Medinipur, Howrah districts²⁶ with a low female population, need special focus on upliftment of women. District wise variations in gender composition of population, are presented in the chart.

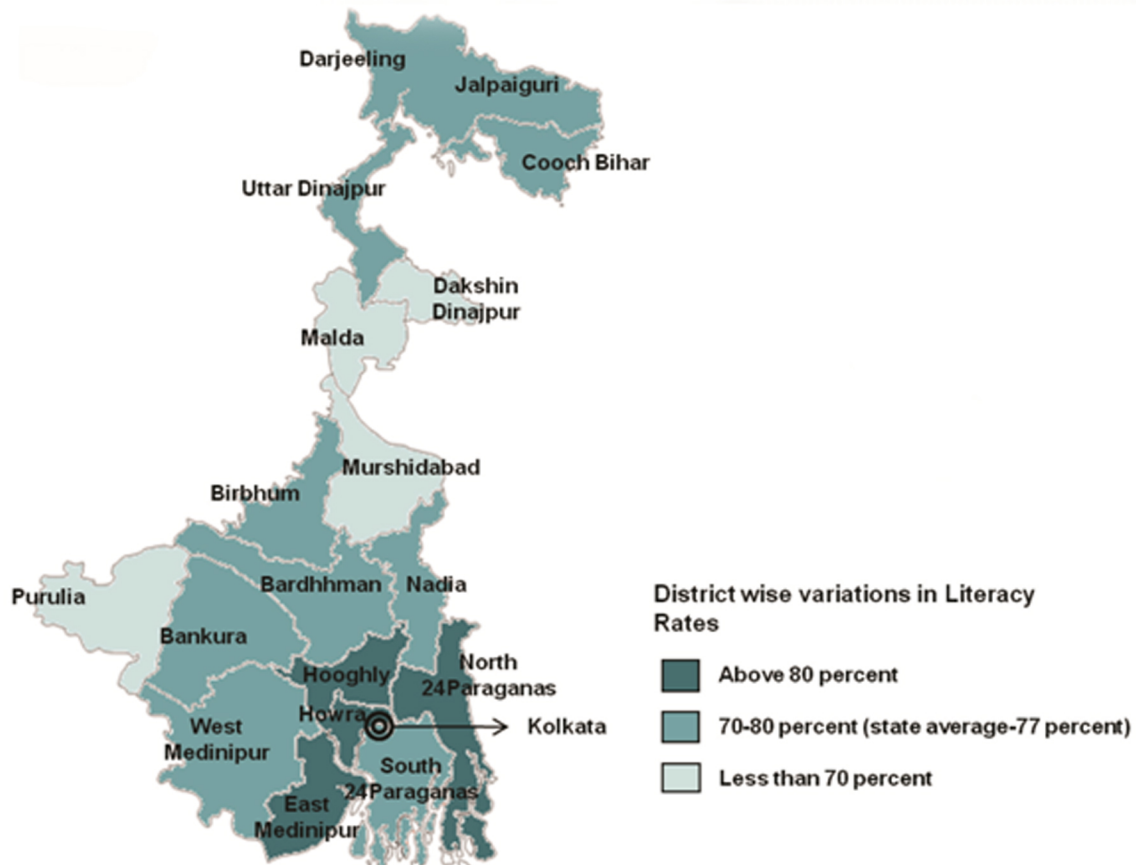


6.1.2 Literacy

West Bengal has a literacy rate of 77.08 percent²⁷ as per Census 2011 estimates, as against 74.02 percent²⁸ at national level. During 2001-11 literacy rate has witnessed growth from 68.64 percent²⁹ to 77.08³⁰ percent, while the number of literates increased to 6,26,14,556³¹ persons. Growth in overall literacy of state is largely attributed to successful implementation of mass education. However, significant regional variations in literacy rate are witnessed among the districts of West Bengal with Dakshin Dinajpur, Malda, Purulia and Murshidabad having very low literacy rates³². There is a greater need to focus on strengthening primary education system in these districts from the state. Further, state female literacy rate at 71.16 percent³³ is higher than national average female literacy rate of 65.46 percent³⁴. While better female

²⁴ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
²⁵ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
²⁶ KPMG Analysis
²⁷ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
²⁸ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
²⁹ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
³⁰ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
³¹ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
³² KPMG Analysis
³³ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html
³⁴ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

literacy rates indicate better participation of women in the workforce, compared to the national average, the state has considerable gender literacy disparities with a male-female literacy rate gap of 11.51 percent³⁵. Gender inequalities in literacy are more prominent in rural regions with a rural male-female literacy rate gap of 13.43 percent³⁶. District wise variations in literacy rates are presented in the chart.



While the State has progressed towards providing universal access to all regions and ensuring high enrollment in primary education, further efforts are required to increase retention of students across especially in districts like Uttar Dinajpur, Purulia, DGHC, Murshidabad and Malda. District wise details of school statistics are presented the table.

³⁵ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

³⁶ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

District	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Uttar Dinajpur	221806	13477	6.08%	256415	16140	6.29%
Purulia	230291	12308	5.34%	266224	12289	4.62%
DGHC	97468	2813	2.89%	112676	5128	4.55%
Murshidabad	532639	8948	1.68%	615747	17297	2.81%
Malda	298866	3973	1.33%	345499	5313	1.54%
Birbhum	273649	3280	1.20%	316347	11942	3.77%
Siliguri	88516	1053	1.19%	85759	2430	2.83%
Chooch Behar	225118	2412	1.07%	260243	4664	1.79%
South 24 Parganas	627590	6574	1.05%	725513	11506	1.59%
Paschim Medinipur	471751	4381	0.93%	545358	7161	1.31%
Kolkata	416080	2778	0.67%	481001	2769	0.58%
Burdhwan	628560	3909	0.62%	726635	1013	0.14%
Jalpaiguri	309135	1556	0.50%	357369	6046	1.69%
North 24 Parganas	811196	3497	0.43%	937767	11757	1.25%
Howrah	388236	1668	0.43%	448812	5307	1.18%
Bankura	289934	1201	0.41%	335172	4299	1.28%
Dakshin Dinajpur	136495	532	0.39%	157792	1606	1.02%
Hooghly	457820	1599	0.35%	529254	1150	0.22%
Purba Medinipur	403773	390	0.10%	466775	2669	0.57%
Nadia	418188	200	0.05%	483439	1115	0.23%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

6.1.3 Healthcare

West Bengal is undergoing significant demographic changes, and hence it is important to achieve inclusive growth across gender, age, castes and regions to sustain the growth momentum. Historically, the state has performed better than national average in healthcare indices, due to a significant focus given on primary healthcare. However, there is a growing need to improve tertiary healthcare services in the state. A comparative view of West Bengal and India overall, in select health indicators, is presented in the table³⁷.

Indicator(2010)	Region	
	West Bengal	India
Birth Rate	16.8	22.1
Death Rate	6	7.2
Infant Mortality Rate(IMR)	31	47

6.2 State of the Economy

West Bengal has a prominent place in the economy of India. Net income of state (at current prices) had registered a cumulative growth of 16.07 percent³⁸ during 2006-2012 (Advance Estimates). The state economy growth is marginally lower than national average growth rate of 17.12 percent³⁹ during the same period. State economy has witnessed a gradual shift from secondary to tertiary sector, while the primary sector contribution remained consistent over the years. Tertiary sector has witnessed maximum growth among sub sectors, contributing to 60 percent⁴⁰ of total state income in 2011-12. Net State Income trend is presented in the chart.

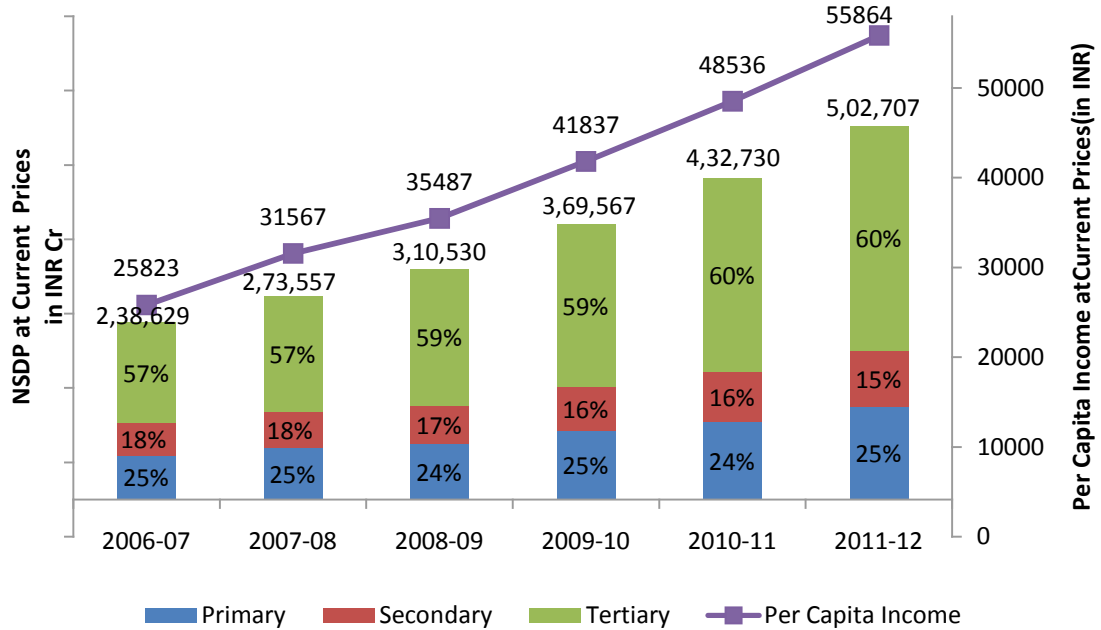
³⁷ Directorate of Economics and Statistics, Government of West Bengal

³⁸ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

³⁹ <http://indiabudget.nic.in/es2010-11/echap-01.pdf>

⁴⁰ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

West Bengal State Economic Performance



While the State Per Capita Income (At Current Prices) has increased from INR 25,823⁴¹ to INR 55,864⁴² between 2006-07 and 2011-12, it is still lower than the national level average of INR 60,972⁴³ during 2011-12. Per capita income has increased by INR 30,041⁴⁴ during 2006-07 and 2011-12, growing at a rate of 16.69 percent⁴⁵.

In terms of contribution of individual districts to the overall state economy, districts of North 24 Parganas, Kolkata, Howrah, Hooghly, Burdwan, Soth 24 Parganas accounted for a major share. The leading ten district economies in the state contribute to about 75 percent⁴⁶ of state income. District wise GDDP details are presented in the chart.

⁴¹ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

⁴² www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

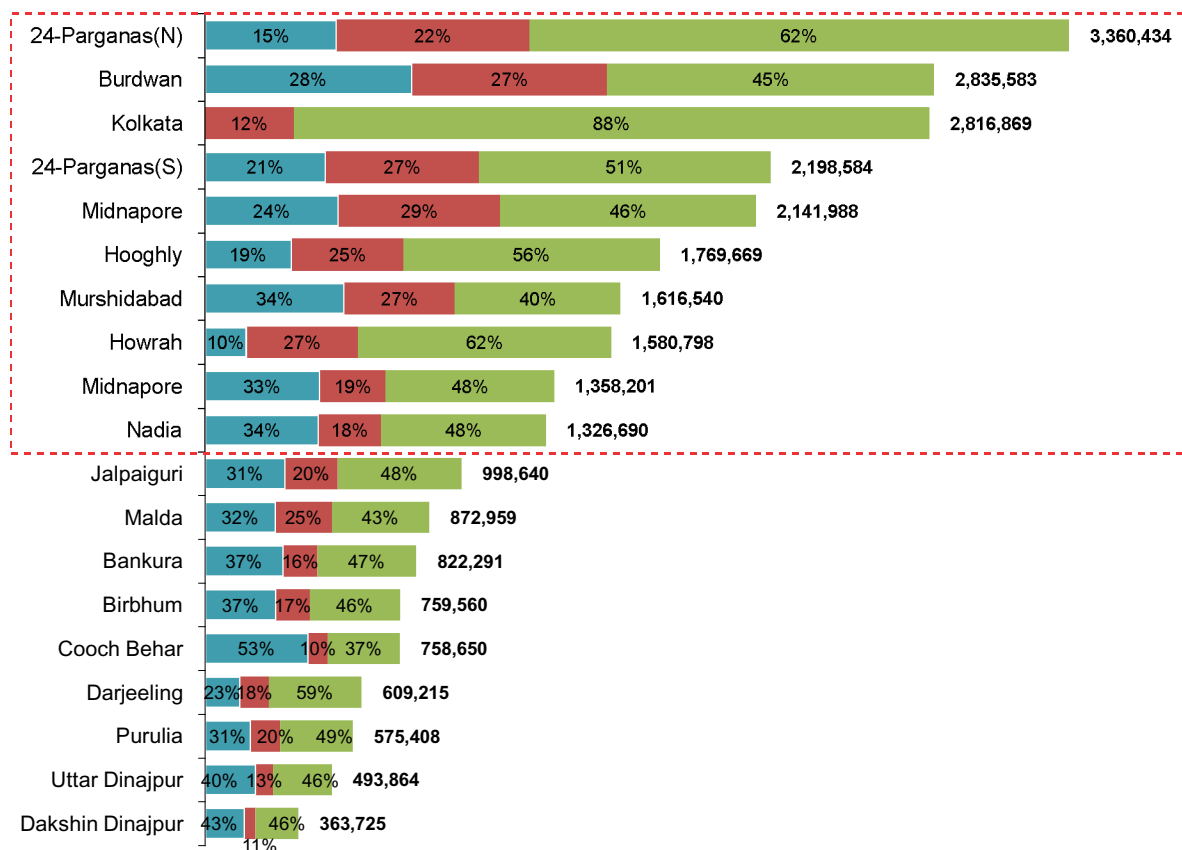
⁴³ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

⁴⁴ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

⁴⁵ www.wbfin.nic.in/writereaddata/EconomicReview11_Part2.pdf

⁴⁶ KPMG Analysis

Economy of Districts of West Bengal (in INR Lakhs at Current Prices, 2006-07)



6.2.1 Agriculture & Allied Activities

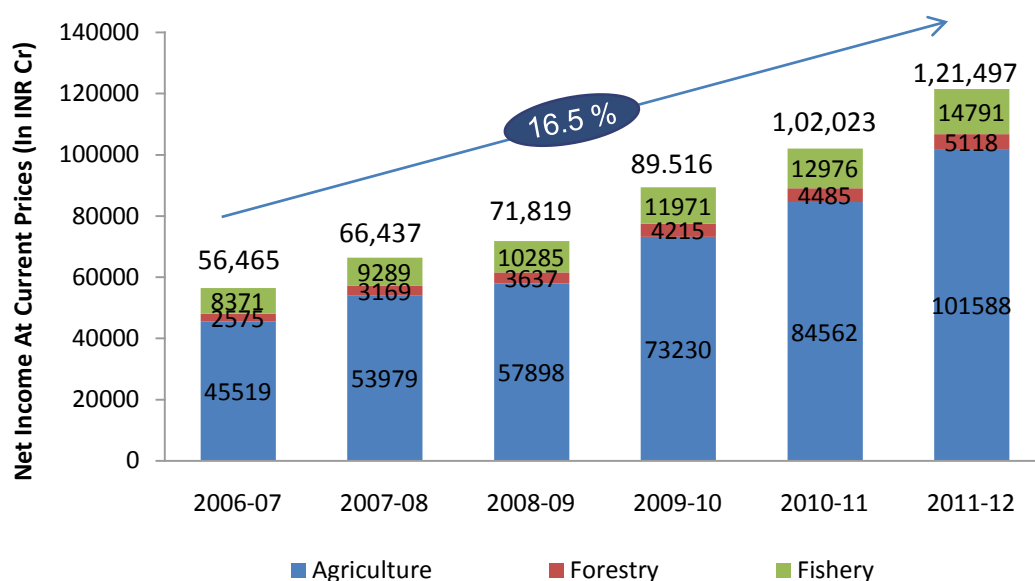
Agriculture and Allied activities have a significant place in the economy of the state. Between 2006-07 and 2010-11, the sector contribution to State Net Income at current prices, grew at 16.5%⁴⁷. While the absolute growth of the sector at current prices shows an increasing trend, contribution to the overall economy has dipped, owing to faster growth in secondary and tertiary sectors. As per 2011-12 estimates the sector has contributed INR 1,21,497⁴⁸ to the Net State Income, accounting for 24 percent⁴⁹ of the total state economy. Cultivation has traditionally dominated the sector while Fisheries has witnessed significant growth in recent years in certain districts. Sub-Sector wise state primary sector income growth trends are presented in the chart.

⁴⁷ Directorate of Economics and Statistics, Government of West Bengal

⁴⁸ Directorate of Economics and Statistics, Government of West Bengal

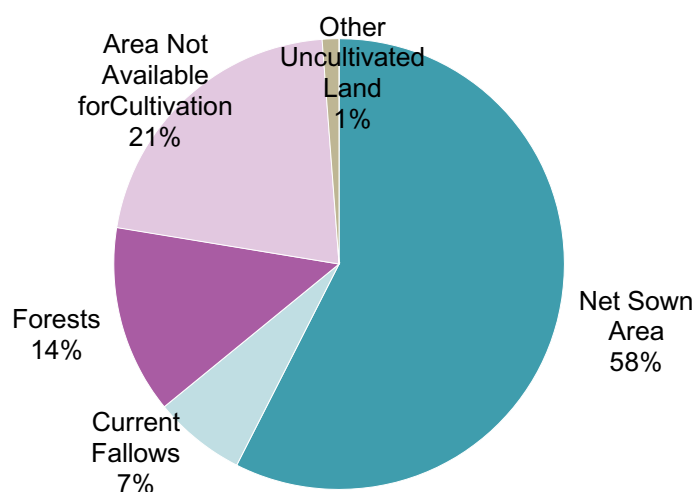
⁴⁹ Directorate of Economics and Statistics, Government of West Bengal

Contribution of Agriculture and Allied Sector to the Economy



Cultivation: The state has a significantly high proportion of overall geographical land available under cultivation. As per recent estimates, around 58 percent⁵⁰ of the total geographical area of the state is under cultivation with a minimal cultivable waste land indicating the effective implementation of irrigation schemes. However, considering the limited availability of Un-cultivated land, agricultural output growth in West Bengal could only be achieved through multiple cropping and simultaneous cropping techniques. Distribution of land usage pattern in West Bengal is given in the table.

Land Usage Pattern in West Bengal(2010-11)



West Bengal has a diversified topographical nature ranging from Himalayas in the North to shallow Sundarbans in the south. Regional variations in topographical and soil conditions have resulted in significant variations in proportion of available cultivable land in total land across the districts. Paschim Medinipur, Burdwan, Murshidabad, South 24

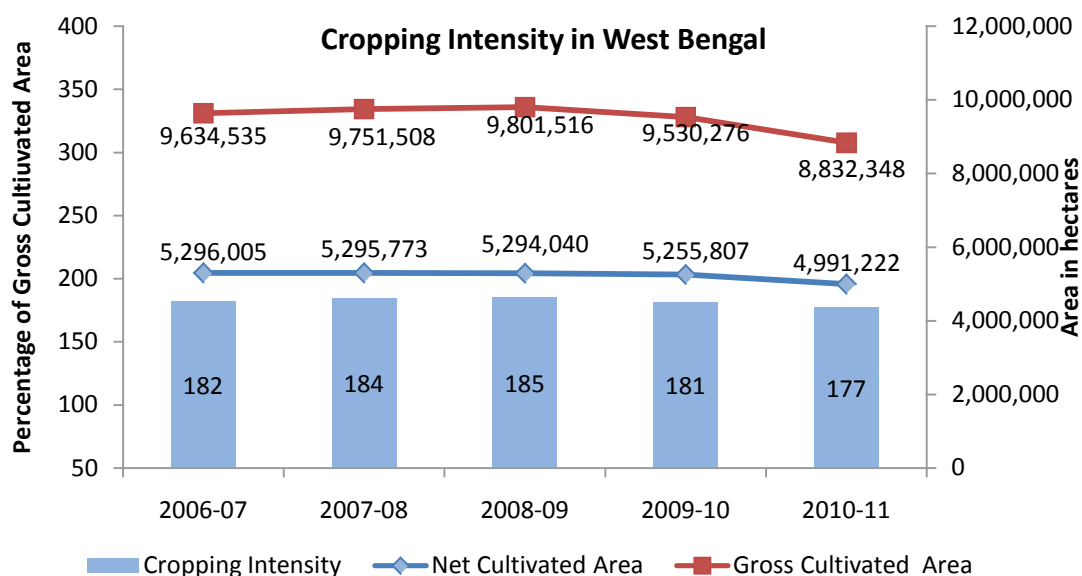
⁵⁰ Directorate of Agriculture, Government of West Bengal

Parganas, Jalpaiguri and Birbhum are among the districts which account for a major share of the cultivable land in the state. District wise details of land availability are presented in the table.

District	Geographical Area (In hectares)	Net Sown Area (in hectares)	Percentage of Area under Cultivation
Paschim Medinipur	928581	486199	52%
Burdhwan	698762	452462	65%
Murshidabad	532499	395958	74%
South 24 Parganas	948710	358401	38%
Jalpaiguri	622700	334127	54%
Birbhum	451118	319956	71%
Nadia	390655	290447	74%
Purba Medinipur	396594	288052	73%
Uttar Dinajpur	312466	274768	88%
Bankura	687998	264089	38%
Cooch Bihar	331565	250611	76%
Purulia	625646	226134	36%
North 24 Parganas	386524	223017	58%
Malda	370862	217984	59%
Hooghly	313379	212407	68%
Dakshin Dinajpur	221909	183615	83%
Darjeeling	325469	133582	41%
Howrah	138676	79413	57%

Uneven distribution of land usage patterns among the districts is largely attributed to forest and non agricultural barren lands in the districts of South 24 Parganas and Bankura. A comparative look at the trend in cropping intensity over the years indicates that during 2006-07 and 2010-11, cropping intensity had remained constant⁵¹, with no significant growth in cultivated area in the state.

⁵¹ Directorate of Agriculture, Government of West Bengal



Limited growth in the cropping intensity, as well as overall cultivated area, are attributed to high dependence on rainfall. Considering the low rainfall in the Gangetic regions covering Burdwan, Birbhum, and Bankura districts, there is a need to develop awareness levels on minor irrigation techniques to sustain agricultural growth. District wise details of irrigation sources in West Bengal are given in the table.

District	Kharif 2011 Rainfall (in millimeters)	Area Irrigated through Canals (in hectares)
Darjeeling	2902	2830
Jalpaiguri	2511	39350
Cooch Bihar	2147	N.A.
Malda	1207	N.A.
Uttar Dinajpur	1390	N.A.
Dakshin Dinajpur	1151	N.A.
Burdhwan	1069	245630
Birbhum	1256	93170
Bankura	1422	26360
Purba Medinipur	1300	N.A.
Paschim Medinipur	1408	N.A.
Howrah	1267	29630

Hooghly	1285	80710
North 24 Parganas	1418	7500
South 24 Parganas	1349	44900
Nadia	1213	N.A.
Murshidabad	1262	9170
Purulia	1378	8900

Agricultural output from West Bengal has a good mix of both food and cash crops. Rice, Potato, Jute and Tea are major food and commercial crops grown in the state. Agricultural production in the state has achieved high yield per hectare in comparison to national average, owing to increasing consumption of NPK fertilizers - especially in the districts of Burdwan, Hooghly, Murshidabad and Paschim Medinipur. However, in a majority of the districts, loss of harvest due to pest associated with deficiency of micro-nutrients is observed due to lack of awareness about micro nutrients. To ensure sustainability of agricultural practices initiatives to support implementation of organic farming along with Vermi compost techniques are required in the state. Further, there is a greater need to popularize hybrid varieties in crops other than Rice and Wheat. Crop wise agricultural output during 2010-11 details are given in the table⁵².

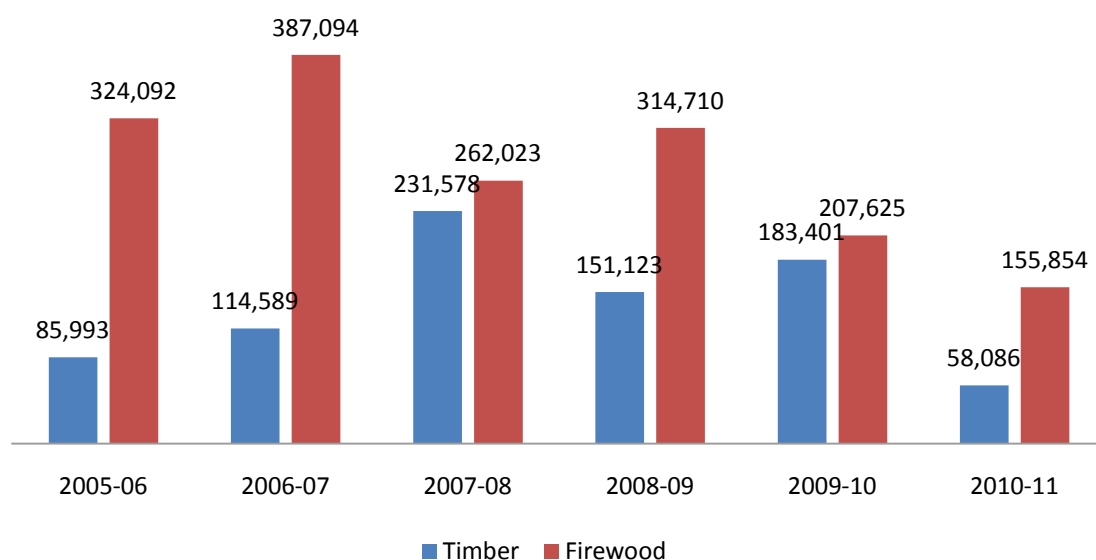
Crop	West Bengal Production (in million tons)	India Production (in million tons)
Rice	13.39	95.98
Wheat	0.87	86.87
Pulses	0.18	18.24
Sesame	0.17	0.89
Rapeseed and Mustard	0.42	8.18
Sugarcane	1.13	342.38
Potato	13.42	39.66(P)
Jute & Mesta	8.21	10.62
Tea	228305(E)	966733(E)

Agri-allied sectors such as forest produce, sericulture, horticulture, dairy farming, and fisheries play a crucial role in providing employment as well as complementing the earning potential of agricultural workforce dependant on cultivation.

⁵² Directorate of Agriculture, Government of West Bengal

Forestry: Forest Produce collection is an important activity in the districts of South 24 Parganas, Jalpaiguri, Paschim Medinipur, Bankura, Darjeeling and Purulia. Timber and Firewood are key products supporting allied handicraft industries in the tribal regions of the state. However, due to deforestation and usage of land for industrial activities, forest produce output has been declining over the years. Forest produce trends in West Bengal are presented in the table⁵³.

Forest Produce in West Bengal (in cubic metre)



Fisheries: State has the potential for the production of both Marine and Inland fish considering the vast sea coast coverage. Production of fish has increased from 1060 thousand tons in 2001-02 to 1443 thousand tons in 2010-11⁵⁴. South 24 Parganas, North 24 Parganas, Nadia, Cooch Behar have significant employment generation from Pisciculture activities. However, currently, a major portion of the fish produce comes from Inland production indicating a need to explore the potential in marine fish production to boost the sector. District wise details of Pisciculture in West Bengal are given in the table⁵⁵.

Pisciculture Scenario in West Bengal			
District	Net area available (ha.)	Net area under effective pisciculture (ha.)	Number of People Employed
South 24 Parganas	115530	47862	430308
North 24 Parganas	60160	56778	297447
Nadia	22301.16	13380.69	270000
CoochBehar	6084.2	3055.4	146840

⁵³ Directorate of Forests, Government of West Bengal

⁵⁴ Directorate of Fisheries, Government of West Bengal

⁵⁵ Directorate of Fisheries, Government of West Bengal

Burdhman	31181	23313	143950
Hooghly	23094.94	16376.9	133364
Purulia	18578	16214	124191
Bankura	25813	22655	114578
Jalpaiguri	6000	4500	111271
Dakshin Dinajpur	8260	6862	109311
Howrah	8895	7907	86270
Malda	16194	5689	78735
Paschim Medinipur	23169.57	15701.84	62946
Murshidabad	46933.19	33186.37	20500
Purba Medinipur	30269.7	22617.1	19808
Uttar Dinajpur	6189	4063	8637
Darjeeling	227	208	4727
Birbhum	100.2	100.2	179
West Bengal	593512.4	143336.66	2163062

State fisheries Development Corporation Ltd. has been set up to promote pisciculture in the State of West Bengal focusing on Sewage fed fisheries, Sweet water fisheries and Brackish water fisheries. Currently, the Corporation has undertaken 11 projects including Digha Brackish Water Fisheries Project, Goltala Fisheries Project, South 24 Pagans and Krisna Badh Fisheries Project. Considering the scope for innovative and advanced techniques in this area, Government has initiated skill upgradation programs for existing workforce in pisciculture.

Animal Husbandry: Animal husbandry, especially cattle and goats and sheep, poultry and piggery have been providing rural supplementary livelihood opportunities, considering the uncertainties in cultivation. Total milk production from cow, buffalo and goats stood at 4,472 thousand tons⁵⁶ during 2010-11, which has increased from 3,470 thousand tons⁵⁷ in 2000-01. State has witnessed production of 4,000 million eggs⁵⁸ from hen and duck during 2010-11. Total meat production in the state from all categories has reached 272.9 thousand tons⁵⁹ by 2010-11. However, penetration of advanced rearing methods using mechanization including fisheries is limited in the state, indicating a growing need to increase awareness about such practices for better yields. Major livestock clusters in West Bengal are presented in the table.

⁵⁶ Directorate of Animal Husbandry, Government of West Bengal

⁵⁷ Directorate of Animal Husbandry, Government of West Bengal

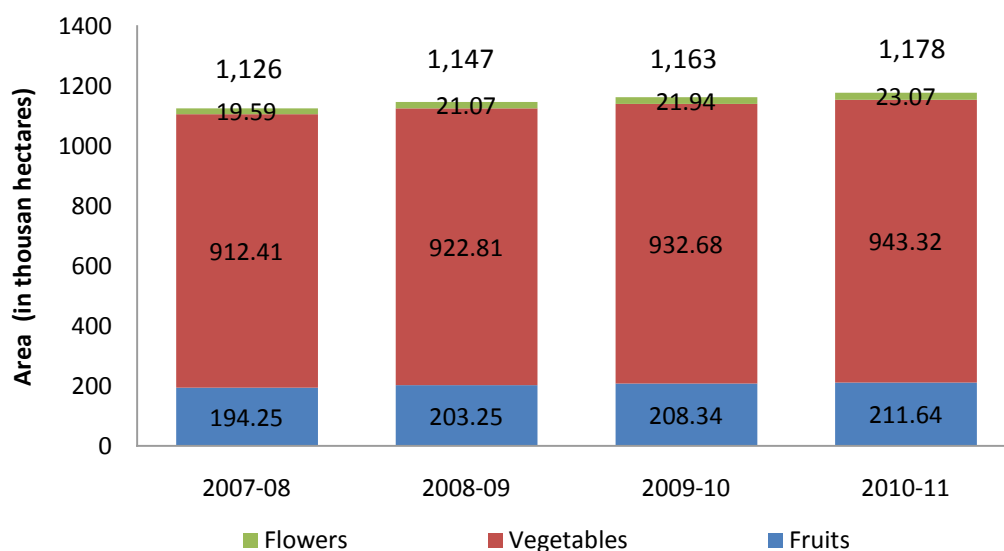
⁵⁸ Directorate of Animal Husbandry, Government of West Bengal

⁵⁹ Directorate of Animal Husbandry, Government of West Bengal

Livestock Growth Clusters in West Bengal	
Activity	Districts
Milk Production	Burdhwan, Murshidabad, Hooghly, North 24 Parganas and Nadia
Poultry	Murshidabad, South 24 Parganas, Burdhwan, Nadia, North 24 Parganas, Hooghly, Paschim Medinipur and Birbhum

Horticulture: Horticulture is one of the emerging sectors in West Bengal with opportunities of parallel cropping being explored across the regions. As per 2010-11 estimates, the state has around 1,178 thousand hectares⁶⁰ under horticulture cultivation. Vegetable cultivation accounts for around 80 percent of total land used for horticulture growth, followed by Fruits. Over the last five years, there has been very minimal growth in the area under horticulture crop cultivation. This is attributed primarily to limited awareness levels about the benefits of these crops, indicating a need to promote horticulture through suitable training among small and marginal farming communities. Cropping trends among horticultural crops are presented in the table.

Land Used for Horticulture in West Bengal



Fruits and nuts, vegetables, spices, plantation crops, medicinal and aromatic plants, flowers and ornamentals are key horticulture crops in the state. Key horticulture clusters in the state are presented in table⁶¹.

⁶⁰ Directorate of Food Processing Industries and Horticulture, Govt. of West Bengal

⁶¹ Directorate of Food Processing Industries and Horticulture, Govt. of West Bengal

Horticulture Clusters in West Bengal	
Crop	Districts
Mango	Malda, Murshidabad, Nadia, Hooghly, North 24-Parganas
Pineapple	Siliguri, Jalpaiguri and Uttar Dinajpur
Banana	Hooghly, South 24- Parganas, Nadia, Murshidabad
Papaya	Hooghly, North 24-Parganas, South 24-Parganas, Nadia, Murshidabad
Mandarin orange	Darjeeling Hills
Guava	Murshidabad, 24 Parganas-S
Jackfruit	Jalpaiguri, Coochbehar
Litchi	Murshidabad, Malda, Nadia,24 Parganas-S
Coconut	24 Parganas-N, Medinipur
Sapota	24 Parganas-S
Cashew nut	Medinipur-East
Tomato	Nadia, 24 Parganas –N&S
Cabbage	24 Parganas, Nadia, Bardhaman, Murshidabad, Hooghly
Cauliflower	24 Parganas, Nadia, Bardhaman, Murshidabad, Hooghly
Radish	24 Parganas, Nadia, Bardhaman, Murshidabad, Hooghly
Pea	24 Parganas-N, Nadia, Hooghly
Brinjal	Hooghly, Bardhaman, Nadia
Onion	Hooghly, Burdhaman
Lady's Finger	24 Parganas, Nadia, Bardhaman, Hooghly, Murshidabad
Flowers	Darjeeling, Nadia, North 24 Parganas, South 24 Parganas, Howrah, Paschim Medinipur and Purba Medinipur

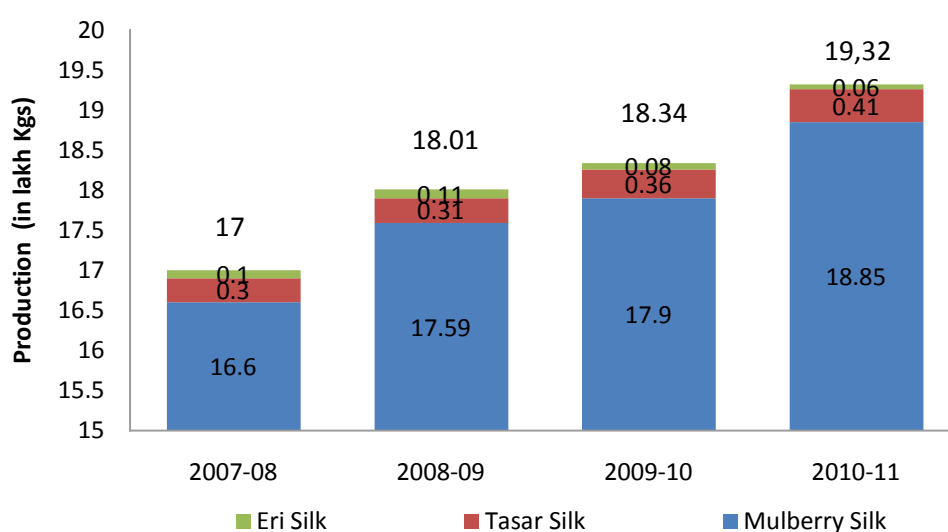
Low productivity due to limited use of hybrid varieties, need for post harvest handling training and mono cropping methods in districts of Bankura, Purulia and Birbhum, are some of the issues identified with regard to promotion of horticulture in the state.

Sericulture: Sericulture in West Bengal is another key agri allied activity with significant commercial prospects for farmers, providing employment and livelihood to more than 1 lakh families. Major silk varieties of mulberry, tassar, muga and eri are being produced in the State. At present, there are 62 Basic Seed Farms, 16 Egg Production Centers (Grainages) and 59 Technical Service Centers throughout the State.

Government has initiated Catalytic Development Programme in 14 clusters across the State for development of silk. Several Schemes like need-based and beneficiary-oriented, tailor-made special schemes and schemes in Social Sector under the head 'Other Development Scheme (ODS)' under State Plan, are being implemented for sustainability of sericulture industry in the State.

Sericulture sector in 2011-12 has been incorporated in the RASHTRIYA KRISHI VIKASH YOJANA (RKVY) list. A number of schemes will be implemented under RKVY. As per the 2010-11 estimates state has produced 19.32 lakh kgs of Silk⁶². Silk production in the state is dominated by Mulberry. Silk production trends in the state are presented in the chart.

Growth of Sericulture in West Bengal



Significance of Mulberry cultivation is visible even in employment generation from Sericulture activities. Mulberry cultivation leads employment generation in the state followed by Tassar. Details of Sericulture employment are provided in the table⁶³.

Category wise Employment in Sericulture Activities(2011-12)	
Category	Employment
Mulberry	2,59,736
Tassar	30,640
Muga	2,566
Eri	2,668
Total	2,95,610

⁶² Directorate of Sericulture, Govt. of West Bengal

⁶³ Directorate of Sericulture, Govt. of West Bengal

Malda, Murshidabad and Cooch Bihar are key silk producing districts in the state. Murshidabad is historically known for high quality silk produced from the state. Silk production has further helped the growth of cottage handloom industry in these regions. However cultivation techniques used are still primitive, leading to low productivity and reduced earnings to the people employed in silk cultivation. District wise category level silk production in the state are presented in the table⁶⁴.

District	Mulberry(tons)	Tassar(tons)	Eri(tons)	Muga(tons)
Cooch Behar	3060	N. A.	N. A.	4.9
Jalpaiguri	N. A.	N. A.	10542	0.36
Darjeeling	1440	N. A.	N. A.	0.52
Uttar Dinajpur	18570	N. A.	N. A.	N. A.
Dakshin	5870	N. A.	N. A.	N. A.
Malda	12591220	N. A.	68	N. A.
Murshidabad	2328320	N. A.	N. A.	N. A.
Nadia	126750	N. A.	N. A.	N. A.
North& South	1600	N. A.	440	N. A.
Medinipore	16610	862	N. A.	N. A.
Purulia	N. A.	5771	N. A.	N. A.
Bankura	N. A.	17708	N. A.	N. A.
Burdhwan	60	94	N. A.	N. A.
Birbhum	2177500	835	N. A.	N. A.
Total	17271000	25270	11050	5.78

N.A- Not Applicable for the district

Agriculture and allied activities output in the state has regional variations depending on the land area under cultivation, nature of soil, irrigation facilities and scope for allied activities in the districts. Added to this, the high involvement of third parties (intermediaries) in marketing is resulting in low returns to farmers. High wastage due to lack of storage and transportation infrastructure and predominantly local consumption, are some other characteristics of agricultural marketing in the state. Storage capacity of public godown has remained constant at 21,600 metric tons over the last few years due to closure and de-hiring of godowns. There is an increasing need to enhance the awareness about agricultural marketing through formation of cooperatives in the state. Regulated market yards details as on November, 2011 are presented in the table⁶⁵.

⁶⁴ Directorate of Sericulture, Govt. of West Bengal

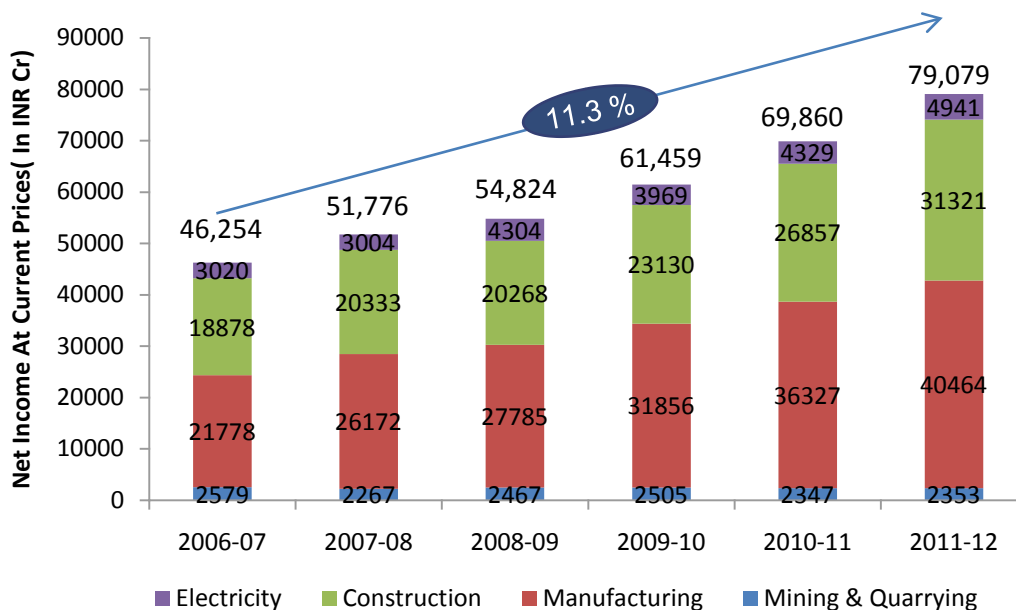
⁶⁵ Directorate of Agriculture, Govt. of West Bengal

District	Market Yards	Sub Market Yards
Burdhwan	4	41
Birbhum	3	29
Bankura	1	21
Purba Medinipur	2	23
Paschim Medinipur	2	31
Howrah	1	6
Hooghly	3	85
North 24-Parganas	1	53
South 24-Parganas	1	45
Kolkata	1	-
Nadia	3	9
Murshidabad	4	27
Uttar Dinajpur	2	26
Dakshin Dinajpur	1	16
Malda	2	17
Jalpaiguri	3	57
Darjeeling	2	37
Cooch Bihar	6	108
Purulia	2	10

6.2.2 Secondary and Mining Sectors

Secondary sector along with mining plays a key role in the economy of the state, providing significant organized employment opportunities. Sector has witnessed a compounded growth rate of 11.32⁶⁶ percent between 2006-07 and 2011-12, dominated by manufacturing and construction. During 2011-12 Net Income from the sector has reached INR 79,079 Cr.

⁶⁶ Directorate of Economics and Statistics, Government of West Bengal



State Government has embarked on several measures for the development of industrial sector, to reinstate the industrial glory that the state has witnessed historically. Under the new "Industrial Policy", Government has laid broad and deep focus on Micro, Small and Medium Enterprises, restarting and re-modeling closed PSUs, and striven to attract large private investments in sectors. Engineering, steel, tea, jute, mining, power and food processing are focus areas for promotion. Information Technology sector is another growth area. Further, Government has proposed to develop 'Land Bank' with digitalized maps to promote industry and other projects.

New Industrial Policy also intends to initiate steps to generate employment on a large scale based on a skill development programme with focus on labour intensive sectors such as textiles, apparel, leather, jute, handicrafts, tourism, gems and jewellery, scaling up agro-based industries and other creative industries. Key initiatives undertaken by the Government include:

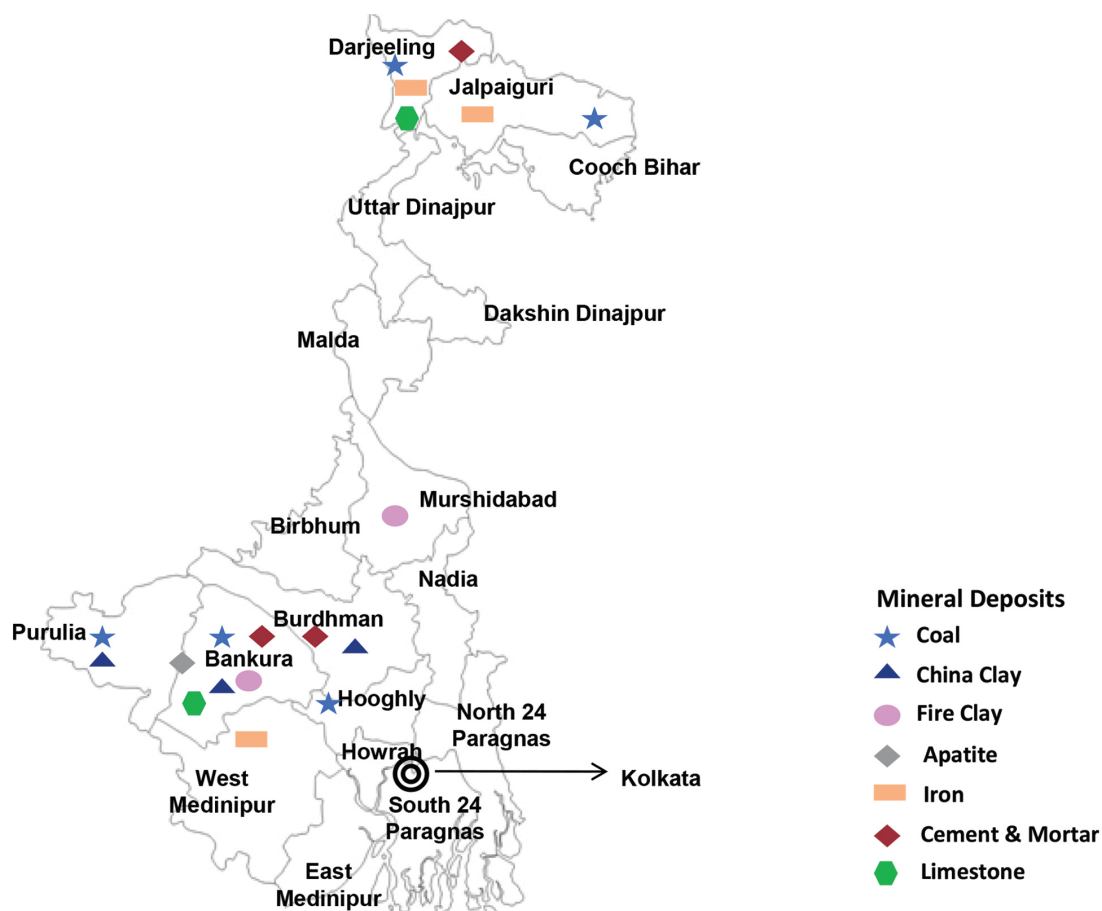
SHILPA-SATHI: A "Single Window System" has been set up to facilitate faster clearances.

Incentives: West Bengal Incentive Scheme 2004 has been replaced with "West Bengal State Support for Industries Scheme 2008" with broad focus on incentivizing industrial policy units which lay emphasis on greater employment generation at the local level and specific time-frame for availing benefits of the Incentive Scheme by the industrial units, as a measure to ensure timely commissioning of industrial units and commencement of production.

Corporations under the administrative control of Commerce & Industries Department:

In order to achieve the state's economic agenda of attracting industrial investment, Government has restructured the West Bengal Mineral Development & Trading Corporation Ltd.(WBMDDTC), West Bengal Tea Development Corporation Ltd.(WBTDC), West Bengal Photochemical & Pharmaceutical Development Corporation Ltd.(WBPPDC) and The Infusions(India) Ltd. West Bengal Industrial Development Corporation (WBIDC) has been set up with an objective to develop sector-specific and multi product industrial parks in the State, keeping in mind the roadmap for rapid industrial growth. Further, government has initiated development of Growth Centers through the West Bengal Industrial Infrastructure Development Corporation (WBIIDC). WBIIDC has developed 15 Growth Centers in Kalyani, Falta, Uluberia, Bishnupur, Raninagar, Coochbehar, Malda, Dabgram, Haldia, Kharagpur and Bolpur along with exploring PPP ventures in

Jalpaiguri and Jhargram. Two manufacturing related SEZs in Falta (multi product zone), Manikanchan at Salt lake (Gems & Jewellery) are operational in the state. Details of industrial infrastructure in the state are shown in the map.



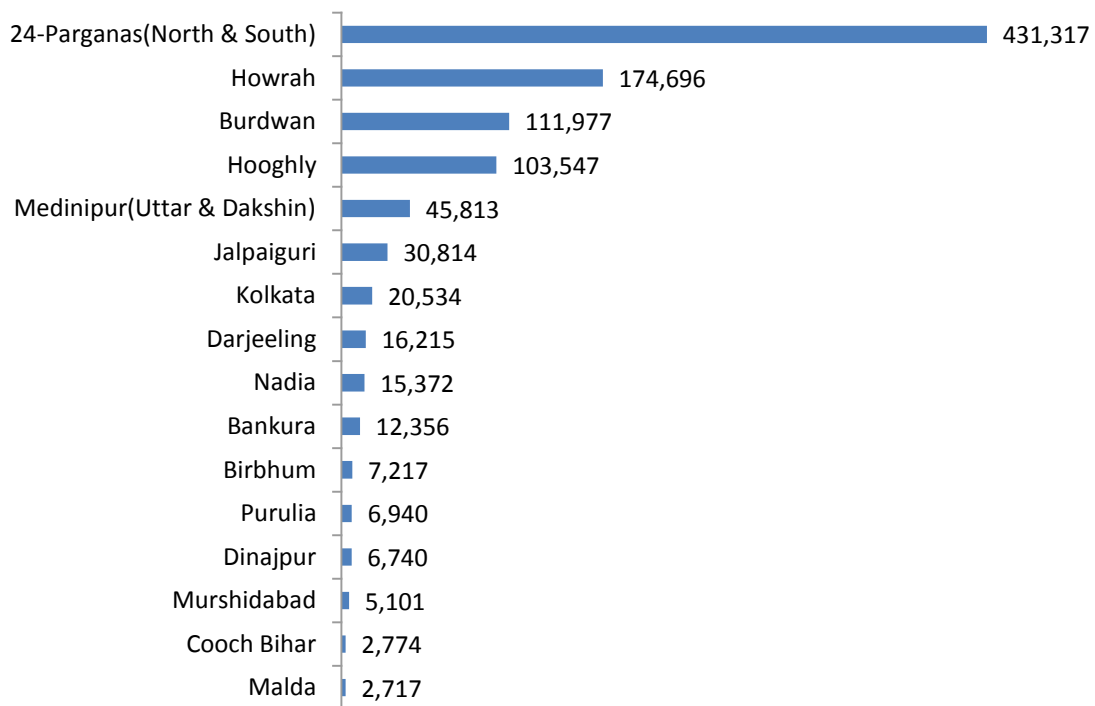
Favorable government initiatives have helped the state witness significant investments into the manufacturing sector. Industrial growth, in terms of investment, has been predominantly propelled by large-medium scale industries whereas small scale industries have played a significant role in contributing to employment generation in the state.

During the period from 2000 to 2010, an overall investment of INR 55,844 Cr has flown into the large-scale industries category generating additional direct employment of 2,44,225. Year wise growth in investments is presented in the table.

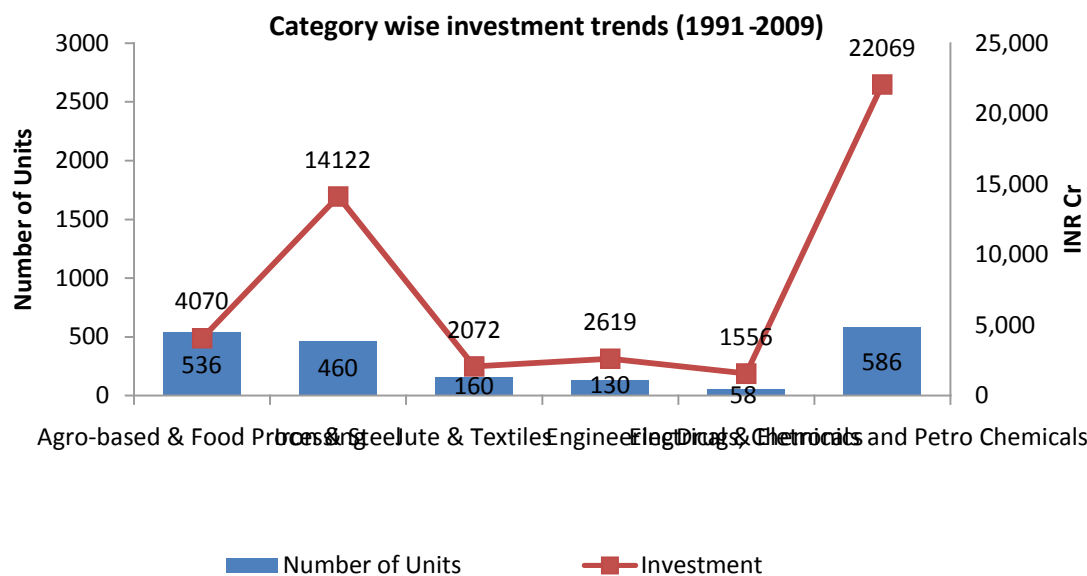
Year	Number of Units	Investment in INR Cr	Direct Employment
2000	63	7740.11	8821
2001	86	2194.54	9653
2002	113	2325.95	19491
2003	137	2335.19	10772
2004	196	2243.8	26070
2005	227	2515.58	27521
2006	221	3436.15	25394
2007	291	5072.82	41219
2008	217	4434.5	20563
2009	262	8493.43	23451
2010	322	15052.23	31270

Growth of large scale industries has not been evenly spread in the state considering the geographical and raw material advantages of certain districts over others. As per 2011 statistics leading districts-North & South 24 Parganas, Howrah, Burdwan and Hooghly - account for over 80 percent of total 9,94,130 employment generated in registered factories in the state.

District wise Average Daily Employment in Registered Factories(2011)

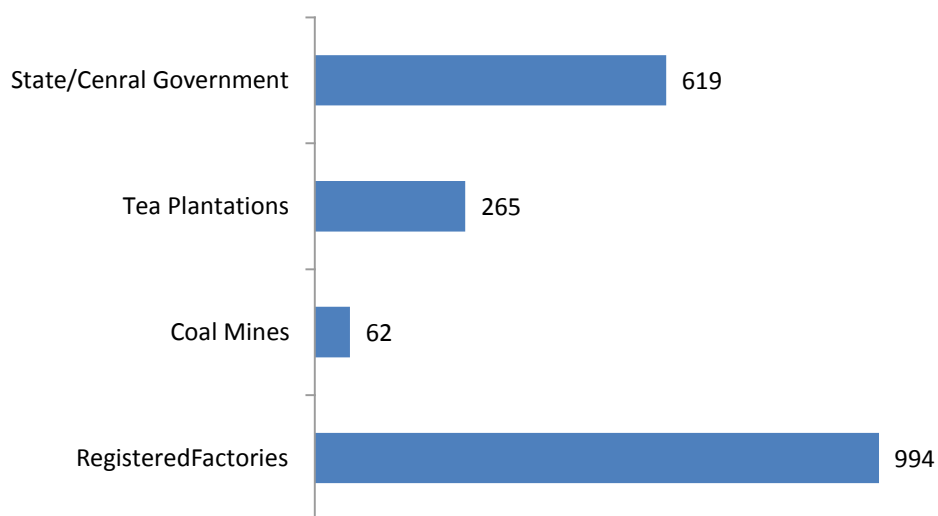


Further, sectoral distribution of investments into manufacturing industries during 1991-2009 shows significant developments in Iron & Steel, Drugs & Petro Chemicals and Textile in a state historically known for strong Agro Processing Industries. Investment details into key manufacturing sub sectors are presented in the chart.



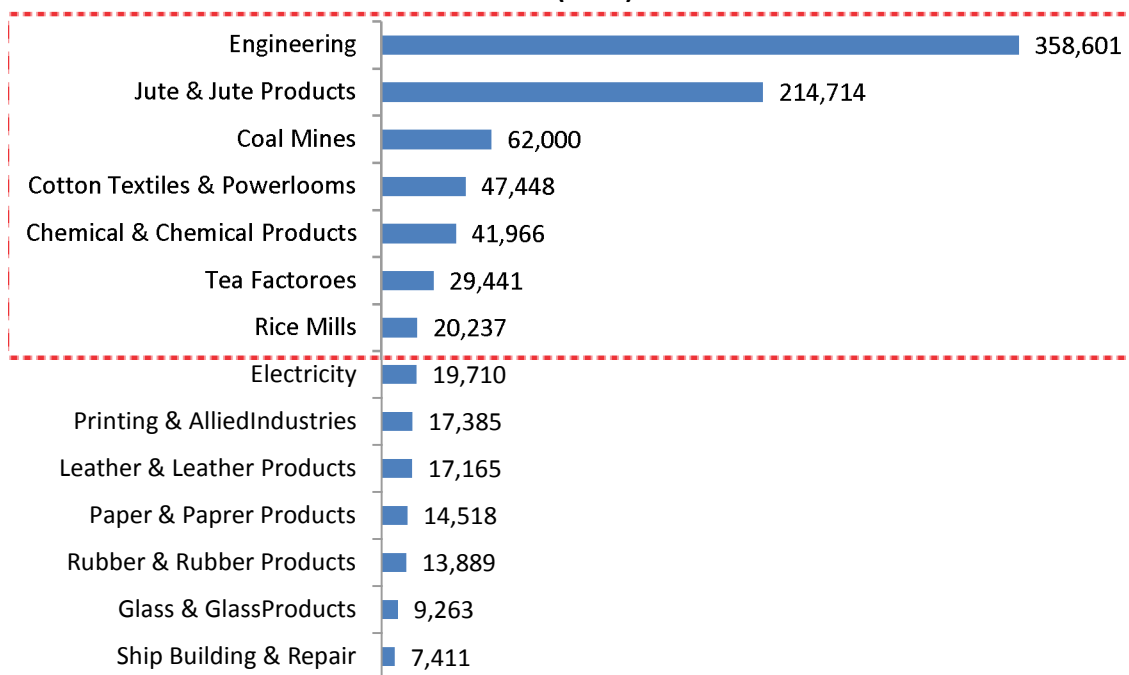
Factories, Tea Plantations, Coalmines and State/Central Government administration provide majority of organized employment in the state. Employment generation from these sectors as on 2011, is presented in the chart.

Employment in Registered Factories, Coal Mines, Tea Plantation, State and Central Government Offices in West Bengal (In Thousands)



Further, among the industrial sector Engineering Products, Jute & Jute Products, Coal mines, Cotton and Textile Power looms, Chemical Industries, Tea Factories and Rice Mills account for around 88 percent of the total employment generated in registered manufacturing units. Details of employment generation from registered manufacturing units is presented in the chart.

Employment in Major Industries in West Bengal (2011)



The trend of large scale industries generating low employment opportunities is primarily due to high levels of automation and mechanization in the industries, with demand for only skilled manpower, in lesser numbers, to operate the machines. Growth of Large scale industries has witnessed significant boost over the recent years. Some of the key developments in the sector include.

Projects nearing completion:

- Increasing production capacity of Dhansari Petrochem Limited from 2 lakh ton to 4.3 lakh ton
- Training Centre for production of leather goods at Bantala
- Foundry Park and ITI at Ranihat, Howrah
- Bitumen-emulsion Plant of Hindustan Kolas Limited at Haldia is complete and can start production as soon as the Environmental Clearance is available

Projects on progress: Issues related to land have been settled for the following projects : –

- Steel Project (10 m. ton) of JSW at Shalboni. Production target at 1st Phase is 30 lakh ton.
- Cold-Rolling Mill of Paton International Limited at Uluberia in Howrah District.
- Integrated Steel Plant (11 lakh ton) of Shova Ispat Limited at Mejia in Bankura District.
- Rolling Mill and Steel Melting Shop of Ankit Metal and Power Limited at Jorhira in Bankura District.
- Foundry Park (150 units) of Foundry Cluster Association at Ranihat in Howrah District.

Evaluation of Projects: Four key industrial projects from M/s. Universal Crescent Power Private Limited, M/s. APS Ispat & Power Limited, M/s. Sri Badri Narayan Alloys & Steel Limited and Bikash Smelters & Alloys Limited are evaluated for approval.

Master Plans have been drawn for 15,000 Acre Panagarh Industrial Park at Panagarh and 98 Acre “Rishi Bankim Shilpa Udyan” at Naihati.

“Bengal Leads – 2012”

State level investor summit “Bengal Leads” has been organized in January 2012. Players like Maruti Suzuki, Techno India Group, TATA International, Bengal Aeropolis have come up with proposals of investment.

State Government has proposed 16 big projects with an investment of INR. 56,000 with an employment generation potential of nearly 2.45 lakhs. Steel Authority of India Limited, Indian Railways, Burn Standard, Traitors India Limited, Hindustan Petroleum Corporation Limited, TVS Motors, Universal Group and Reliance Group, are key industries planning to set up large scale units in the state.

New Projects –

- **Machineries for Construction Industries:** Tractors India Limited have set up new unit at Kharagpur Vidyasagar Park and at Changuai. Total investment after completion will be Rs.600 crore and will create jobs directly for 2,000 people, and indirectly for 3,000 people.
- **Eco-friendly Tourism Industry:** The State Government has signed MOU for construction of Eco-friendly Tourism park and a 1,980 M.W. Power Station involving investment of Rs.26,000 crore at Nayachar in the District of Purba Medinipur. Housing scheme for rehabilitation of Fishermen, introducing modern technique of fishing and setting up of Industrial Park, have also been planned.
- **Fertilizer Industry:** Matix Fertilizer & Chemicals Limited is constructing a 2,200 MTPD Ammonia Plant and a 3,850 MTPD single stream Urea Plant at Panagarh Industrial Park. Rs. 11,000 crore will be invested and employment generation is expected to be 1,525 units.
- **Gas Sector:** Proposed investment of INR 2,000 crore for the development of Gas Grid Network for distribution of Gas in Greater Kolkata is approved. An MOU has been signed by Greater Kolkata Gas Supply Authority, Hindustan Petroleum Corporation Limited and Gas Authority of India Limited. Further, extraction of methane project across an area of 210 sq. km from coal-bed has been leased out to Great Eastern Energy Corporation Limited
- **TVS:** TVS Company has come up with a proposal for setting up of a factory. A plot of land measuring 45.17 Acres in Howrah has been allotted through WBIDC to the company for setting up of the factory.

Micro and small enterprises play a very important role in the development of the State’s economy, providing for largest employment only after agriculture. Micro & Small Scale Enterprises and Textiles Department of West Bengal has initiated several measures to facilitate an integrated growth and development plan for micro and small enterprises, including those in khadi & village industries and Handicrafts industries sectors. Some of the programs initiated by the department include.

(i) **Micro & Small Enterprise Cluster Development Programme: -**

Micro & Small Enterprises Cluster Development Programme (MSE – CDP) is the most important programme for achieving an integrated development of micro and small enterprises. Objectives of the Scheme are: -

- (a) To support the sustainability and growth of MSEs by addressing common issues such as improvement of technology, skills and quality, market access, access to capital etc;

- (b) To build capacity of MSEs for common supportive action through formation of self help groups, consortia, up gradation of associations, etc;
- (c) To set up Common Facility Centers (for testing, training centre, raw material depot, effluent treatment, complementing production process etc.).

(ii) Entrepreneurship Development Programme: -

Entrepreneurial skills of unemployed youth have to be increased following training on managerial development, and also financial aspects of setting up a SSI, to cope up with the various self-employment oriented programmes. Various NGOs like Ramkrishna Mission, WEBCON, EDI etc. are linked with this. Also DICs organize EDP with the assistance of various line Department to extend appropriate knowledge required for setting up of enterprises.

(iii) Incentive Scheme for encouraging the setting up of new units/expansion of existing units: -

Micro & Small Enterprises enjoyed protection in the pre GATT period. After introduction of GATT, in the free globalized market, they have had to face stiff competition for marketing of their products. The government has decided to continue the subsidy scheme to enable them face the competition in the present market scenario. A new Incentive Policy was introduced by the State Government for Micro & Small Scale Enterprises in West Bengal, under the name 'WBIS – 2007', with effect from 02/10/2006. Various incentives have been provided, like Capital Investment Subsidy, Interest Subsidy, Waiver of electricity Duty, Subsidy on Energy Charges, Incentive on Employment Generation, Subsidy on Quality Improvement, Patent Registration. Use of piped gas, expansion of projects etc. were made for Micro & Small Scale Enterprises, along with special provision for Women, SC, ST, SHG Entrepreneurs.

(iv) Handicrafts Industries Development Programme: -

The State Government organizes a number of fairs and exhibitions every year in order to provide marketing support to poor handicrafts artisans. To encourage the Handicrafts artisans and to recognize their creativity, State & District level Handicrafts competition are organized every year. Training programme on different handicrafts items are organized in the district level, as well as at the State level, at Baruiपुर Experimental Workshop-cum-Research Institute for skill development of existing craftsmen, and also for designs and arrangement of advance training programme for the artisans in important functions of the Baruiपुर Experimental Workshop-cum-Research Institute.

(v) Other Important Schemes for development of Micro & Small Enterprises: -

The Department of Micro & small Scale Enterprises and Textiles also pursues the following schemes aimed at the growth and development of micro and small enterprises in the State: -

- (a) Lac Development Programmes;
- (b) Motivation & Awareness Programme;
- (c) Up gradation of Quality Marking Scheme;
- (d) Marketing Research & Survey for promotion of SSEs;
- (e) Implementation PMEGP;
- (f) Promotional support to small, cottage, Handicrafts and other tiny units and entrepreneurs for undertakings export activities for their respective items, and to create new exports for undertaking export activities in

respect of different products produced in the State;

- (g) Training Scheme for Bee-keeping;
- (h) Financial assistance programmes for coir industries;
- (i) Welfare Programmes like Health Insurance and Pension Scheme for the artisans.
- (j) Development of industrial infrastructure for the micro and small enterprises

Along with generic schemes, the state has also initiated sector specific schemes in Handlooms, power looms and food processing sectors.

Schemes in Handlooms Sectors: Product Diversification to keep pace with the demand of the market, through Integrated Handloom Development Scheme (In Cluster & Group Approach Mode) & other State Schemes/Projects with an emphasis on

- Skill upgradation/training.
- Supply of modern looms & accessories.
- Design Development & Supply of Modern Designs
- Common Facility Centers for common services such as Yarn Dyeing etc.
- Credit Linkage
- Construction of Work-shed
- Market Survey & Scientific production planning.
- Development of Market Awareness & Product Knowledge amongst the stake holders of handloom sector.
- Development of marketing channels through Exhibition/Buyers' & Sellers' Meet/Participation in national & International Fairs /Exhibitions.

Schemes for Power loom Sector: Some important schemes for Development of Power loom, Hosiery and Readymade Garments Sectors are: -

- Training of Power loom Weaving;
- Assistance for acquisition of modern loom and accessories by primary power loom cooperative societies;
- Assistance for construction of work shed for primary power loom cooperative societies;
- Development of Power loom Cluster;
- Incentive for Upgradation of existing Power loom, Hosiery and Readymade Garments Units;
- Incentive for new Power loom Units under West Bengal Incentive Schemes;
- Old Age Pension Schemes for the workers of Power loom, Hosiery and Readymade Garments workers;
- Assistance for modernization of machineries of hosieries cooperative societies;
- Upgradation of Government Tailoring Institute;
- Creation of Pre loom processing facilities.

Programme of the Food Processing Industries:

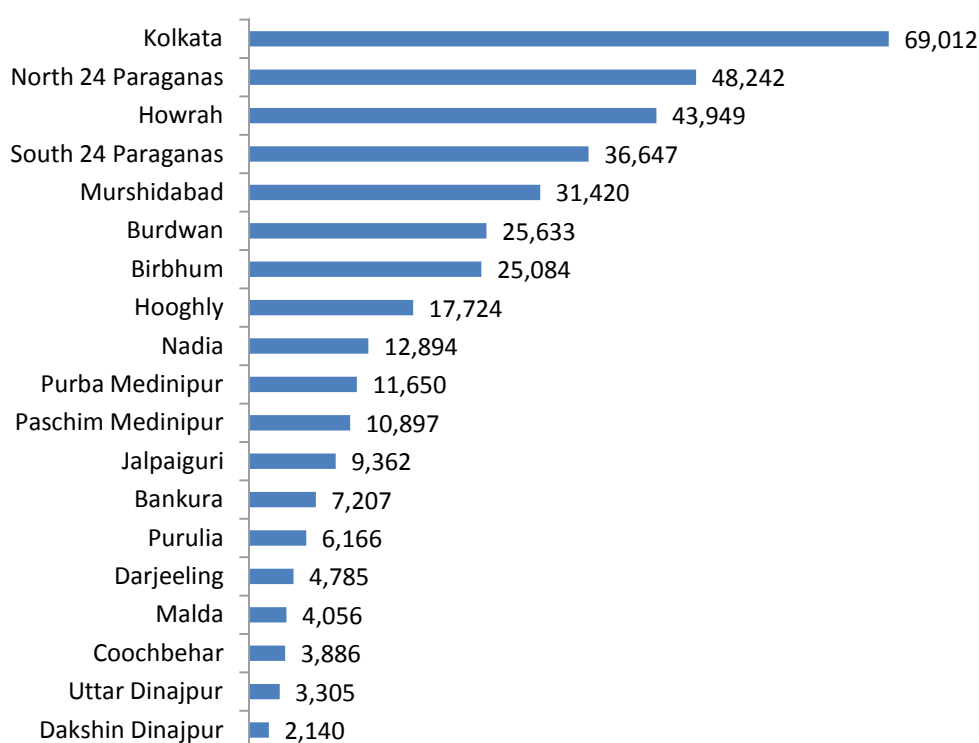
Food Processing Industries in West Bengal have significant growth potential with a variety of crops ranging from Pulses, Vegetables, fruits to cereals providing key raw materials for the industry. (FPI). Considering the need for development of the industry, Government has set up special packages for the promotion of this industry.

Riding on the Government Scheme thrust, state has witnessed promising growth in MSME category with an investment of INR 8,937 Cr into Plant and Machinery of 66,246 new units opened during 2007-08 and 2011-12. Currently there are 1,08,881 MSME units in the state providing employment opportunities to over ten lakhs in the state. Investment and Employment trends in MSME category are presented in the table.

Year	Units	Employment	Investment(Plant & Machinery) in Lakhs
Working on 2006-07	42,635	3,65,228	338054
2007-08	17,618	1,83,242	135945.9
2008-09	13,415	1,37,150	126409.7
2009-10	11,668	1,31,669	89964.77
2010-11	10,099	1,21,944	77788.42
2011-12	13,446	1,20,446	125548.3
Total	1,08,881	10,59,679	8,93,711.05

Regional variations in industrial growth are prominent even in the MSME category, with districts like Kolkata, North & South 24 Parganas, Murshidabad and Burdwan, accounting for nearly two thirds of the total employment generation from this category during 2009-10 and 2011-12. District wise distribution of employment generated through MSME units during 2009-10 and 2011-12, is presented in the chart.

Employment Generation in MSME Category during 2009-10 and 2011-12



Further, the composition of MSME units identified by local clusters, has significant variations across the districts of West Bengal. A detailed list of district-wise clusters existing, along with potential growth areas, are listed in the table.

District	Existing Clusters	Clusters Identified for Promotion
Kolkata	(i) Foundry & Metal Casting (ii) General Purpose Machinery Tools (iii) Lathe Works, (iv) Readymade Garments (v) Nuts & Bolts, (vi) Steel Re-rolling, (vii) Locks and metal spare parts (viii) Jewellery & Artificial Jewellery, (ix) Optical Lenses, (x) Zari Work, (xi) Wigs & Artificial Hair, (xii) Shuttle Cock Manufacturing (xiii) Rubber molded products, (xiv) Sewing m/ c & jute mill m/c spares, (xv) Imitation ornaments, (xvi) Musical instruments,	Fan Manufacturing, Hosiery Products
Howrah	(i) Gold & Silver Jewellery, (ii) Hand gloves (iii) Electronic Items (iv) Automobile Accessories, (v) Pharmaceuticals & Chemicals (vi) Leather Shoe (vii) Letter Printing Press, (viii) Lathe Works & Mechanical Equipments (ix) Readymade Garments, (x) Electrical Fans, (xi) GLS Lamp Manufacturing, (xii) Rubber products, (xiii) Hosiery Products (xiv) Dying Bleaching. (vi) Leather Chappal,	Foundry, Shuttle Cock Mfg., Metal Spare Parts
Malda	(i) Mango Processing, (ii) Honey Processing,	Honey Processing
Purulia	(i) Shellac manufacturing, (ii) Hand Tools. (iii) Chow Mask	Shellac
24-Parganas [S]	(i) Earthen Pottery, (ii) Silver Ornaments, (iii) Leather Shoe and Chappal, (iv) Bricks and Tiles. (v) Mat products, (vi) Bamboo Products, (vii) Gauze & Bandage, (viii) Bori Making.	Silver Filigree
24-Parganas [N]	((i) Zari Work, (ii) Silver Filigree, (iii) Surgical instruments, (iv) Coir Brush Making, (v) Agarbati (vi) Fire Works	Zari Embroidery
Purba Medinipur	(i) Cashew Nut Processing (ii) Sea shell, (iii) Horn Products, (iv) Embroidery Zari Works	Cashew Nut Processing
Burdhwan	(i) Rice Mill (ii) Dokra (iii) Wood Carving (iv) Gold & Silver Ornaments	Wood Carving, Dokra, Rice Mill
Bankura	(i) Brass & Bell Metal, (ii) Fishing Hook, (iii) Roofing tiles, (iv) Dokra (v) Terracotta products	Roofing Tiles
Nadia	(i) Brass & Bell metal, (ii) Gold & Silver Ornaments (iii) Clay Pottery and terracotta.	Brass & Bell Metal, Gold & Silver

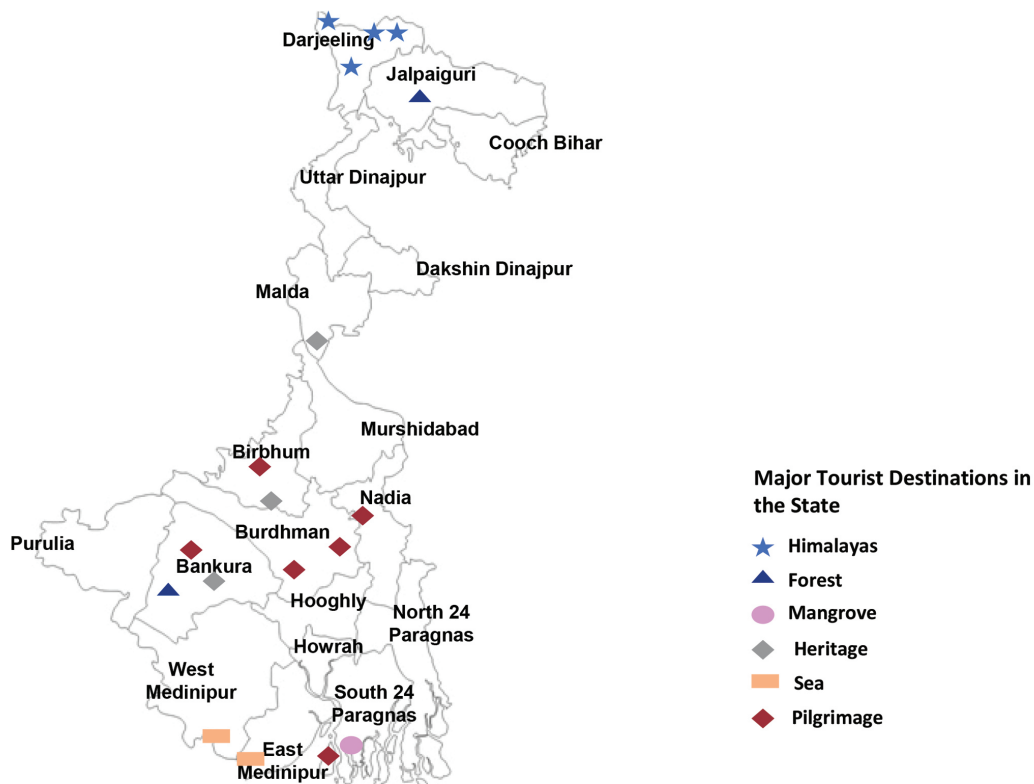
Murshidabad	(i) Plastic Products, (ii) Pottery, (iii) Wooden Furniture & Fixture, (iv) Brass & Bell Metal.	Plastic Products
Siliguri	(i) Fruit Processing, (ii) Earthen Pottery, (iii) Automobile repairing, (iv) Storage battery.	Clay Pottery
Jalpaiguri	(i) Clay Pottery & Idols, (ii) Plastic products, (iii) Cane & Bamboo products.	Plastic Products
Durgapur	(i) Red Bricks, (ii) Refractory Bricks, (iii) Embroidery Products.	Red Bricks
Birbhum	(i) Fancy Leather Goods (ii) Brass & Bell metal (iii) Stitched silk saris (iv) Wood Carving	Brass & Bell Metal
Paschim Medinipur	(i) Agricultural Implements, (ii) Mat Products, (iii) Rice Mill, (iv) Copper Wire Ornaments. (v) Patachitra	Horn Products
Uttar Dinajpur	(i) Terracotta Products, (ii) Oil Mill. (iii) Jute products	Mustard Oil
Cooch Bihar	(i) Sital Pati, (ii) Jute Products.	
Dakshin Dinajpur	(i) Rice Milling, (ii) Jute products, (iii) Bamboo Products,	
Darjeeling	(i) Woolen Products (iii) Honey Processing.	
Hooghly	(i) HDPE Rope, (ii) Brass and Bell Metal, (iii) Silk printing	

Minerals: West Bengal is among the key coal reserve states in India. Government of West Bengal has set up West Bengal Mineral Development & Trading Corporation (WBMDTC) with an objective to promote mining activities in the state. WBMDTC has intensified efforts of undertaking mining activities in the coal blocks allocated in favour of WBMDTC by Ministry of Coal, GOI viz. Kulti, Sitarampur and Ichhapur, Jagannathpur-A & B and Trans Damodar coal blocks. State Govt. has also advocated allocation of 9(nine) coal blocks viz. Dharma, Kabitirtha, Kunur, Lalganj, Nachan, Shunuri, Dewanganj and Deocha-Pachami in favour of WBMDTC by Ministry of Coal, Govt. of India under the State Dispensation Route, so as to enable the State Government to meet the demand of coal for the upcoming industries, particularly in the Steel Sector

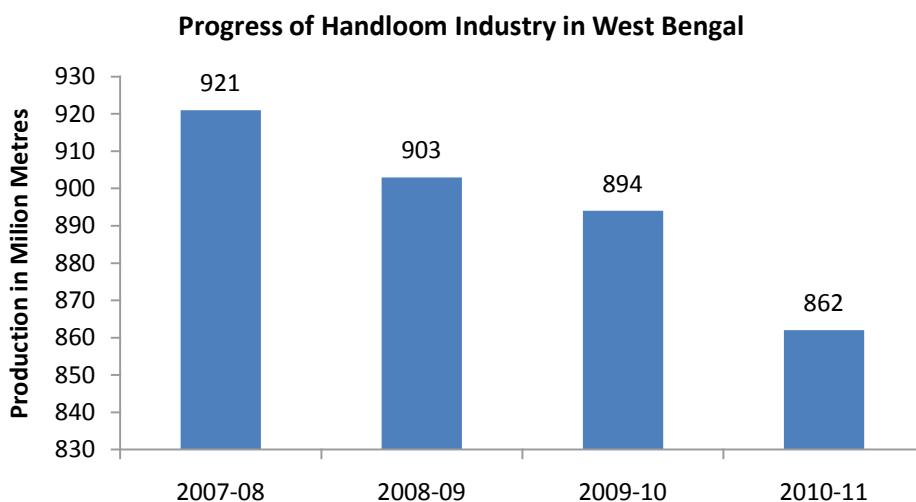
China Clay, Fire Clay, Apatite, Iron and Limestone are other minerals available in the state. Annual production details of key minerals are given in the table.

Mineral	Production(2010)
Coal	22381 thousand tons
China Clay	90513 tons
Fire Clay	33307 tons
Apatite	1350 tons

Burdhman, Purulia, Bankura and Darjeeling are mineral rich districts in the state. Purulia is the only district with gold reserves. Availability of raw material has resulted in growth of allied industries in these districts. Mineral reserve bases available in the state are shown in the map.



Handlooms: Availability of raw materials like silk and jute has helped growth of handloom units in the state. During 2011-12, handloom units have produced 862 million meters of cloth worth INR 53.30 Cr. However production from handlooms is on the decline over the recent years due to challenges in cost effective production and marketing. Progress of Handloom industry is shown in the chart.

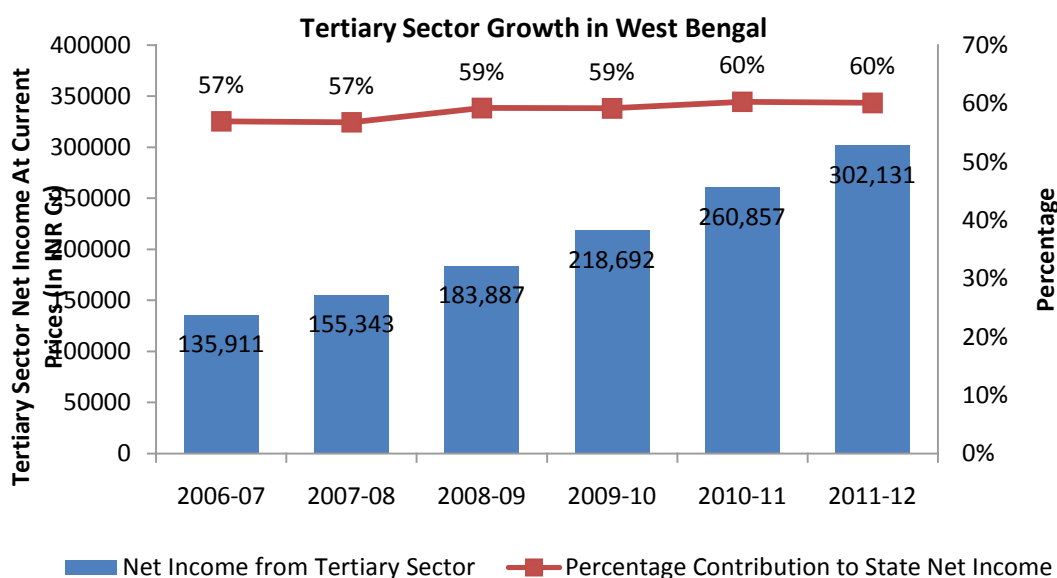


Currently there are 2,214 handloom cooperative societies operating in West Bengal. Considering the challenges involved in marketing and procurement, the development of cooperatives is mandatory to sustain the competition from power looms.

While the state is steady on its path of industrialization, it is still restricted to certain pockets in the region - with most of the other districts being untouched by significant industrial activity. Given the declining attractiveness of agriculture from a sustainable employment perspective, unless headway is made in increasing investment in MSME segments to generate manifold employment opportunities, it would be difficult to accommodate workforce displacement from the primary sector. Key industrial activity in both large-scale industries segment and small-scale segment for major industrial districts of West Bengal, is presented in the table.

6.2.3 Tertiary Sector

Tertiary sector is the largest contributor to West Bengal state economy, contributing to 60 percent⁶⁷ of Net State Income in 2011-12. The sector has witnessed a cumulative growth of 17.32 percent⁶⁸ during 2006-07 and 2011-12 - largely driven by Trade, Hospitality and Real Estate Services.



Key components of tertiary sector include Trade (including Retail), Hospitality sector, Real Estate, Business Services and Transportation by other means⁶⁹. Category wise break up of state services income is presented in the chart⁷⁰.

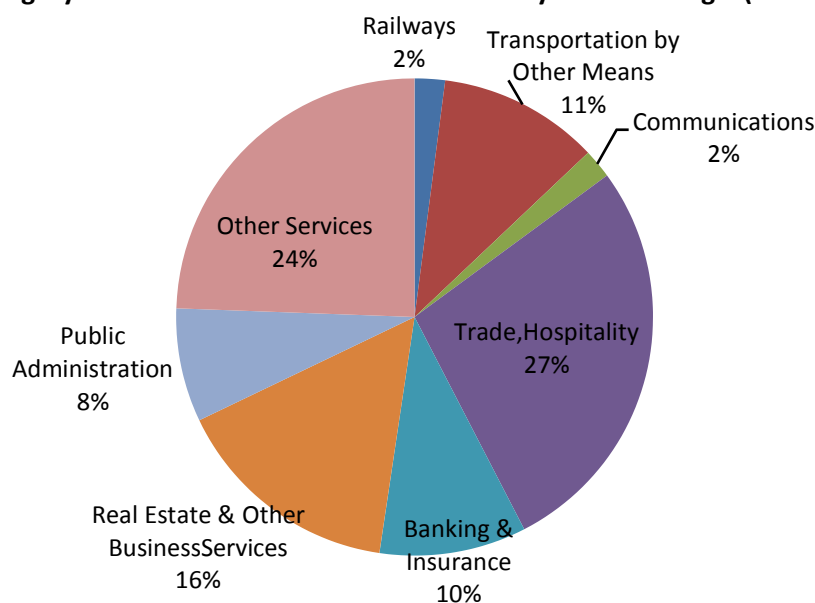
⁶⁷ Directorate of Economics and Statistics, Government of West Bengal

⁶⁸ Directorate of Economics and Statistics, Government of West Bengal

⁶⁹ Directorate of Economics and Statistics, Government of West Bengal

⁷⁰ Directorate of Economics and Statistics, Government of West Bengal

Category wise Contribution to Services Economy in West Bengal (2011 -12)



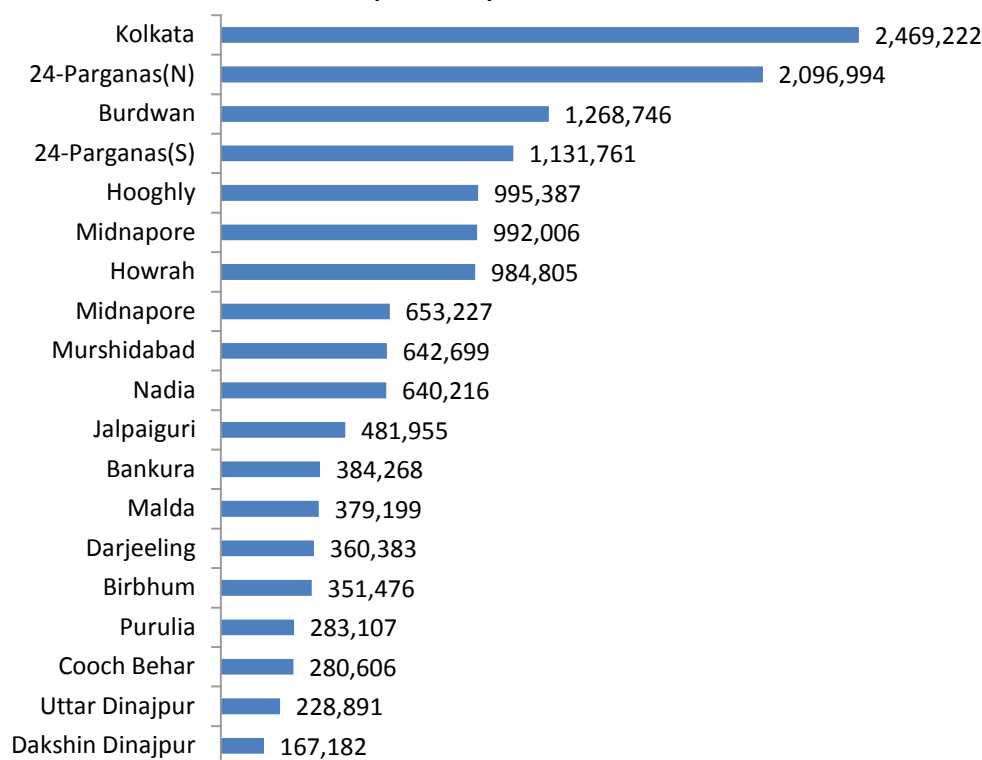
Over the years, the Government has undertaken several initiatives towards transforming West Bengal into a knowledge economy. Sector specific policies for IT/ITES and categorizing IT/ITES, Tourism among the thrust sectors for growth in the state, are some of the steps taken by the state Government towards growth of organized services sector. Employment in services sector is predominantly un-organized with gradual emergence of organized players in retail and hospitality segments. Commercial establishments in West Bengal provide average daily employment to over 8.35 lakh personnel as per September 2011 estimates. Details of category wise employment in commercial establishments are provided in the table.

Employment in Commercial Establishments		
Establishment Category	Number (Sep, 2011)	Employment (Sep, 2011)
Shops	5,80,473	4,53,481
Commercial Establishments	93,501	2,76,625
Cinemas, Theatres etc.	403	8,409
Other Establishments for Public Entertainments	41,778	97,192

Growth of the services economy has strong correlation to overall economic development of the districts with Kolkata, North 24 Parganas, Hooghly being leading contributors to the overall state services income. District wise composition of overall state services income, is shown in the chart⁷¹.

⁷¹ Directorate of Economics and Statistics, Government of West Bengal

District wise Contribution to Services Income:2006-07
(In INR Cr)



IT/ITES: West Bengal is among the fast growing IT/ITES hubs in the country. Currently, there are around 500 IT companies operating in the state with 200 of them focusing on IT exports. During 2011-12, the total IT Exports from West Bengal, are estimated to be around INR 7,939 Cr⁷² - which has grown at 5.85% from the previous year. IT/ITES sector is expected to engage over 1.2 lakh⁷³ professionals directly, both in domestic and export segments. Major IT and ITES companies like TCS, IBM, Wipro, Cognizant Technology Solutions, Siemens Information Systems, Accenture, Ericsson, PwC, Skytech, NIIT, HCL, Genpact have established presence in West Bengal. Apart from setting up a single window clearance system WEBEL for IT investments, the Government has initiated developing IT hubs - Salt Lake, Bantala, Rajarhat, along with IT incubation centers in Tier-II and Tier-III cities like Siliguri and Durgapur, with a view to extend IT/ITES growth beyond major cities.

IT and small & medium companies have grown manifold in West Bengal, riding on the development of large scale units. Out of the total IT companies present, about 90% are in the bracket of SMEs -contributing more than 50% to the IT employment. The Government has initiated several measures to promote the segment, keeping cost considerations in mind. IT Department has already identified satellite locations, away from Kolkata, for development of Information Technology. Siliguri and Durgapur have been equipped with two Incubation Centers/IT Parks, which have received a good response from industry. More such Incubation Centers and IT Parks are planned in Falta, Burdwan, Barjora, Purulia, Kharagpur and Haldia. The IT Department is in possession of 100 acres of land at Kalyani for new IT initiatives.

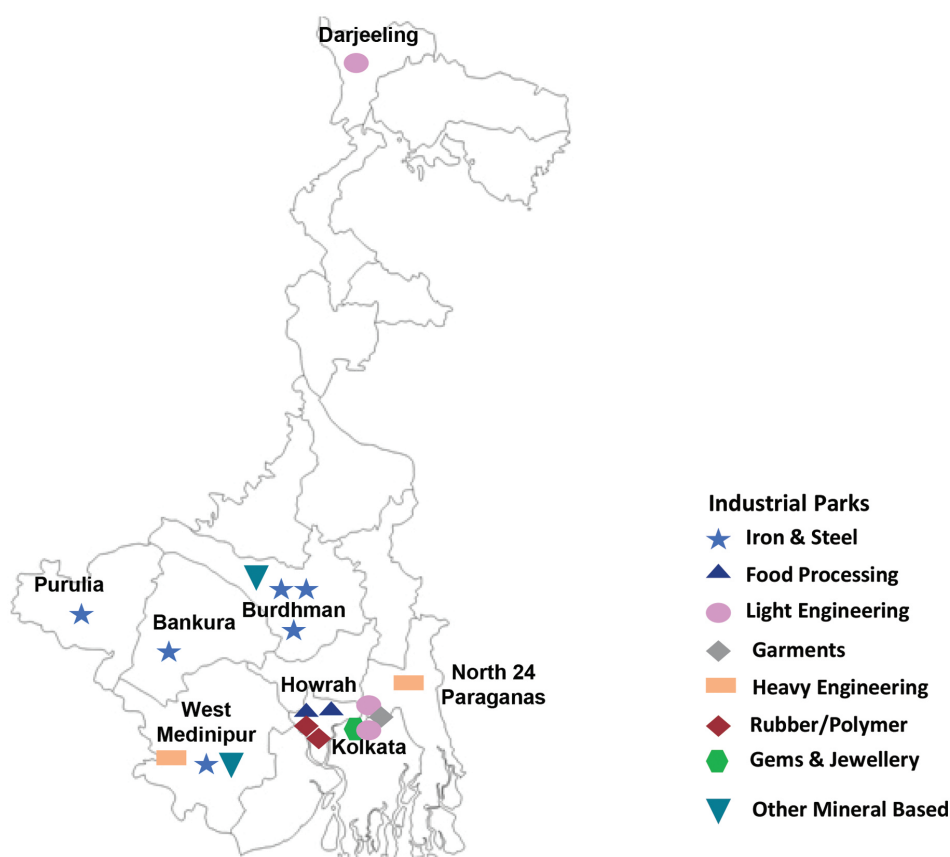
A more specific incentive scheme for IT Hardware companies has been formulated. Various Hardware industries, such as Electronic IT Equipment Manufacturing, Telecom devices, Telecom Infrastructure Equipment, Electronic Components

⁷² Directorate of Information Technology, Government of West Bengal

⁷³ NASSCOM Statistics, 2011-12

manufacturing, Solar Equipment including wafer cells and modules, LED Systems, Electronic Testing and Scientific Equipments, Semiconductors etc, are included in the Scheme.

Tourism and Hospitality: West Bengal has a unique geographical advantage with a topographic spread ranging from Mountainous regions in the north, to the sea in the South. The state is witnessing foreign tourist visits of more than 11 lakhs⁷⁴ over the last few years. In the northern Himalayan region, Darjeeling along with other hill stations like Lalimpong, Sandakphu and Kurseong attract domestic and foreign tourists during the summer months. Sundarbans housing a Tiger Reserve in the southern region of the state offers a glimpse of globally recognized bio diversity in these regions. Along with these tourist locations Kolkata city has several places of historic importance considering the importance of the city during the pre-independence era. List of major tourist destinations in West Bengal, is presented in the map.



Trade and Retail: The prospect of organized retail sector in the state has increased with an increasing per capita income and changing lifestyle. Though the overall retail industry in West Bengal is still dominated by un-organized players, share of the organized sector is on the rise in some segments including- National and International branded retail shops, Jewellery shops, Clothes lines, Food joints, Furniture, Glass products. Pantaloons, Westside, Reliance Agro, ITC Lifestyle and McDonald, are some of the leading retail players in the state. Possible relaxations in FDI norms would further boost the growth of organized share in the industry. Tier-I and Tier-II cities along with Kolkata, are major regions that would be the destinations for large-scale retail investments in West Bengal.

Transport and Logistics: West Bengal has a strategic location advantage to become a logistics hub and a part of the Eastern Dedicated Freight Corridor (DFC) providing access to the East and North East. The state has accessibility through

⁷⁴ Ministry of Tourism, Govt of India

all four categories of transportation - Road, Rail, Sea and Airways. During 2010-11 the rail network in the state spread across 4,511 km, has carried a total passenger capacity of 14,951 lakhs. As on March 2011, the state has 18,630 km of road length maintained by state PWD. Further along with two major ports in Kolkata and Haldia, the state has potential inland ways in the stretch of the Ganga from Haldia to Farakka. State Government has plans to develop port cum SEZ in Kulipi region. State domestic and international cargo handling facilities are available at two of its operational airports - Kolkata and Bagdogra. Multi product cargo facilities are available at Kolkata international Airport, while perishable goods cargo handling facilities are established in Bagdogra. Physical infrastructure details in the Transportation and Logistics segment are presented in the table.

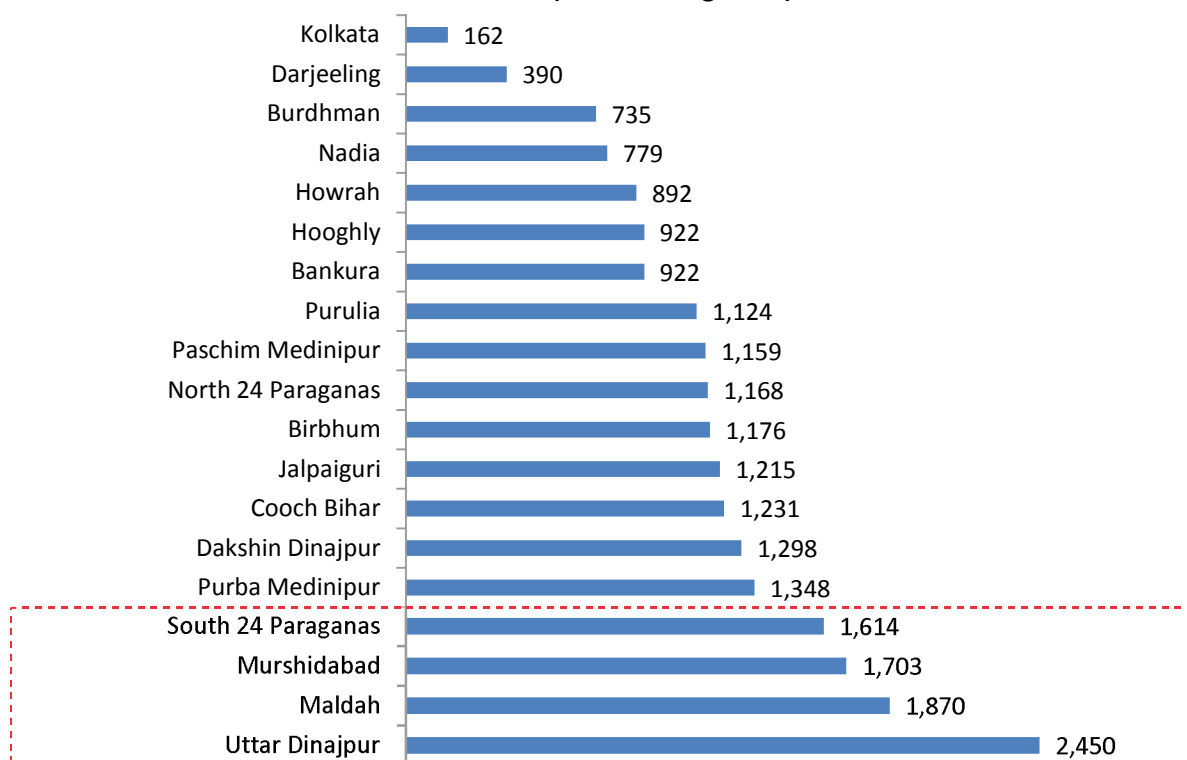
Category	Infrastructure ⁷⁵
Rail	4511 km length covering 822 stations (4185km Broad Gauge, 106km Meter Gauge, 220 km Narrow Gauge) in 2010-11.
State PWD maintained Roads	18,630 km as on March 2011
Other Roads	Municipality&Corporation-24,975km, Zila Parishad-39,547 km, Gram Panchayat-1,30,883 km
Airways	Two Airports-Kolkata, Bagdogra
Ports	Kolkata, Haldia

Healthcare: Healthcare in West Bengal has made significant progress in achieving good coverage of primary healthcare facilities across the state. However, considering the growing affordability and public insurance schemes, there is a growing demand for tertiary health care facilities in the state. As on December, 2011, West Bengal has a total of 13,925 medical institutions⁷⁶ operating with a bed capacity of 1,07,346 - of which 2013 hospitals with a bed capacity of 34,281 are run by private/NGOs. Further, accessibility of healthcare facilities has regional variations with the districts of Uttar Dinajpur, Malda and Murshidabad having significantly lower bed coverage per population in comparison to the state average. These districts with lower coverage are expected to witness significant investments from private and Govt sectors in health institutions over the next decade. Traditionally, Kolkata has been a destination for private investments in healthcare - considering accessibility of the city from states in eastern region including Bihar, Jharkhand, Orissa as well as from Bhutan, Nepal. However, in the recent years, Siliguri is emerging as an alternative destination with significant tourist potential for the growth of medical services. District wise healthcare coverage in terms of population served per bed, is given in the chart.

⁷⁵ Directorate of Information Technology, Government of West Bengal

⁷⁶ Directorate of healthcare, Government of West Bengal

**District wise Number of People Served Per Bed As on Dec, 2011
(State Average-851)**



Financial Services: Banking and financial services sector plays a key role in driving the economy. As on June 2011, there are 5,542 scheduled⁷⁷ and commercial bank branches in West Bengal with total deposits worth INR 3,37,388 Cr⁷⁸ and Advances of INR 1,96,114 Cr⁷⁹. Penetration of banking services standing at 16 thousand people served per branch, is poorer than the national average of 13 thousand people served per branch. However, the shift in banking operations from a branch-driven system to internet and mobile platform, would lead to a growing demand for feet-on-street financial/marketing executives over the next decade. Penetration of Banking and Financial Services in the economy measured as a percentage of income from the sub sector in overall district/state income, would indicate the reach of such services in a particular region. District wise penetration details in West Bengal have significant variations with Kolkata registering highest penetration and East Medinipore having the least. Districts with low penetration would witness significant growth, driven by the focus of the banking sector on inclusion over the next decade - while high penetration districts have the potential to attract NBFCs. Details of district and state penetration comparisons, are presented in the table.

⁷⁷ RBI Statistics

⁷⁸ RBI Statistics

⁷⁹ RBI Statistics

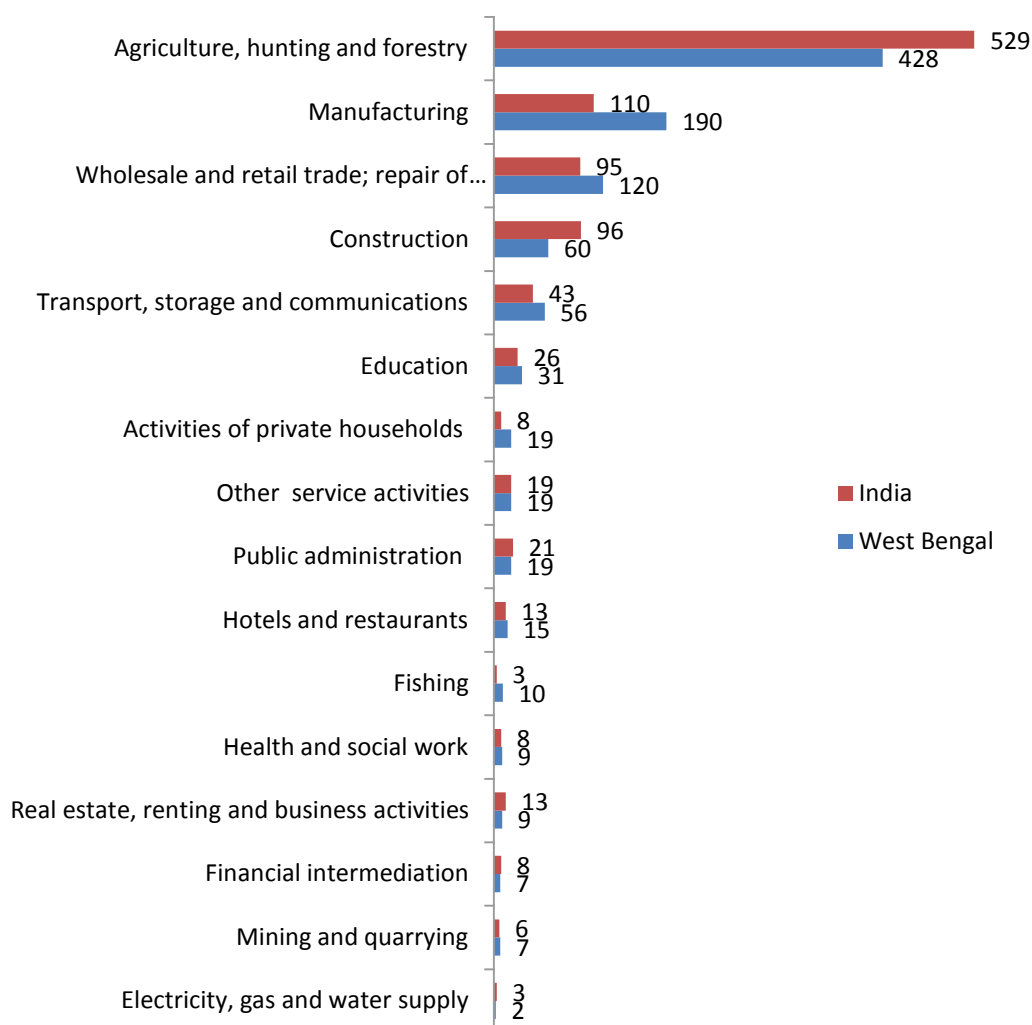
Classification	Region	Penetration of Financial Services in the Economy ⁸⁰
High Penetration	Kolkata	11.57%
	Birbhum	7.17%
	Midnapore West	6.85%
	Bankura	6.36%
	Purulia	6.15%
	Darjeeling	6.12%
Medium Penetration	Dakshin Dinajpur	5.42%
	Malda	5.31%
	West Bengal	5.26%
	Uttar Dinajpur	5.13%
	Hooghly	4.58%
	Howrah	4.55%
	Cooch Behar	4.54%
Low Penetration	Nadia	4.34%
	Burdwan	4.34%
	Murshidabad	4.30%
	Jalpaiguri	4.26%
	24-Parganas(N)	3.80%
	24-Parganas(S)	3.40%
	Midnapore East	2.88%

⁸⁰ Directorate of Economics and Statistics, Government of West Bengal

7 Labor Force Distribution in the State

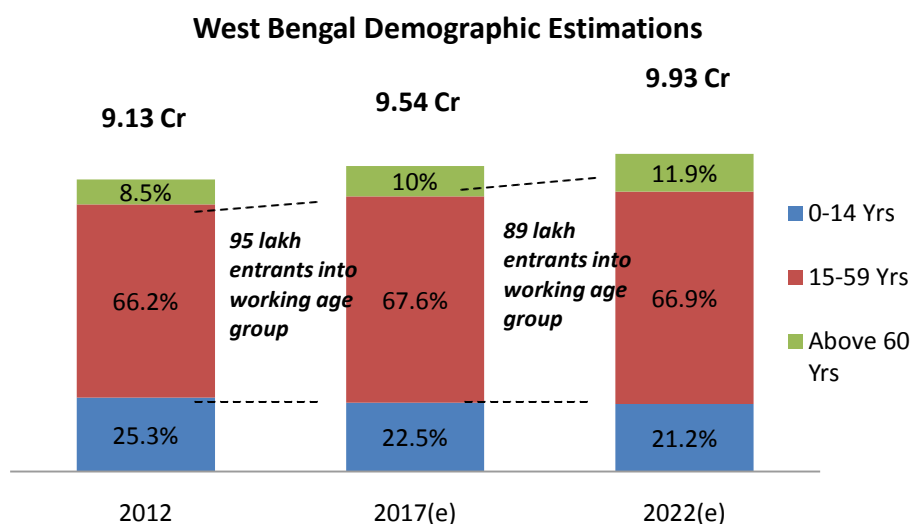
As per NSSO 66th Round Employment Survey, Worker Participation Ratio (WPR) per 1000 persons from 15-59 age group in the state, based on current daily status, is 478 - in comparison to the national average of 509. WPR in rural and urban areas is nearly uniform, with urban areas registering 480 and rural areas 478. Though the participation rates in rural regions are comparable to the urban areas, seasonal nature of agricultural work would mean underemployment for a significant section of the agricultural labor force in the state. While agriculture is a key occupation in rural areas, manufacturing, trade and transportation are major sources of livelihood in urban regions. Further, state has lower labour participation from working age group with the labour force participation rate (per 1000 persons from 15-59 age group) of 515 in comparison to national average of 546 based on current daily status approach. Category-wise employment intensity in West Bengal (Urban+Rural) in comparison with India overall, is presented in the chart.

Category Wise Distribution of 1000 Workers



While agriculture and un-organized sector still contribute to significant employment in the state services and manufacturing contribute to more than half of current state workforce. However, currently most of the secondary and services employment is predominantly un-organized, with gradual emergence of organized players in these segments.

Population distribution by age group in West Bengal has been witnessing significant changes largely due to control of population growth, which has resulted in significant drop of child population during 2001-11. As per KPMG estimations, in the near term, the state has a significant demographic dividend, with a rising working age population with a sizeable proportion on the lower working age spectrum. Between 2012 and 2017, an additional 95 lakh⁸¹ are expected to enter the labor market followed by another 89 lakh⁸² during 2017-22.



Availability of working age group population in a district is an indication of human resource potential present in the economy. However, migration would play a crucial role in determining the exact composition of the population. Ensuring adequate skilling of the available workforce is necessary to increase productivity in the economy, and thus propel state economic growth.

West Bengal Workforce estimations for 2012, 2017 and 2022 are estimated considering the WPR from the NSSO 66th Round Employment Survey, and applying it over the estimated population in the 15-59 age group for these periods. Overall workforce would change because of the change in working age group population (15-59 age group). Availability of working age population measured from the 15-59 age group population is estimated to grow from 604 lakhs in 2012 to 665 lakhs by 2022. While the period 2012-2017 is estimated to witness an addition of 95 lakhs to the working age group with an addition of 89 lakhs during 2017-22. Labour force measured from the population employed, is expected to increase from 311 million in 2012 to 342 million by 2022.

⁸¹ KPMG Estimates, Registrar General and Census Commissioner (2006); Population Projection for India and States 2001-26; National Commission on Population, Govt. of India

⁸² KPMG Estimates, Registrar General and Census Commissioner (2006); Population Projection for India and States 2001-26; National Commission on Population, Govt. of India



Estimated workforce composition in 2022

District-wise incremental supply estimates were arrived based on Planning Commission Population Estimates from the 2001 population, considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Further, districts were classified into high growth, medium growth, low growth categories based on incremental supply during 2012-22.

Category of District	District	Estimated Population (2017)	Working Age Population (2017)	Labour Force (2017)	Workforce (2017)	Incremental Supply during 2012-17
	West Bengal	95555439	64595477	33266671	30876638	9511852
High Growth Districts	South 24 Parganas	8631559	5834934	2876810	2384797	875100
	Murshidabad	7588863	5130071	2699575	2237874	870445
	North 24 Parganas	10504267	7100885	3612327	2994520	878615
	Burdhwan	8025238	5425061	2913027	2414819	752865
	Paschim Medinipur	6222299	4206274	2487211	2061830	626698
Medium Growth Districts	Malda	4277443	2891552	1764841	1463005	533253
	Purba Medinipur	5348011	3615255	2139604	1773673	523716
	Nadia	5374171	3632940	1944999	1612351	505329
	Hooghly	5690684	3846903	2143071	1776547	502715
	Howrah	5051069	3414522	1752997	1453186	427682
	Uttar Dinajpur	3224217	2179570	1270441	1053161	427722
	Jalpaiguri	4042971	2733048	1565934	1298116	434406
	Birbhum	3686271	2491919	1410111	1168943	406828
	Bankura	3744093	2531007	1716974	1423325	382402
	Purulia	3074869	2078612	1390862	1152987	340669
Low Growth Districts	CoochBihar	2949980	1994187	1180566	978657	322608
	Kolkata	4459184	3014408	1722567	1427961	325235
	Dakshin Dinajpur	1731556	1170532	723987	600165	205028
	Darjeeling	1928695	1303798	695291	576377	170536

Category of District	District	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Workforce (2022)	Incremental Supply during 2012-22
	West Bengal	99530929	66586192	34291889	31828200	18481360
High Growth Districts	South 24 Parganas	9083540	6076888	2996102	2483686	1719463
	Murshidabad	8048451	5384414	2833417	2348825	1713861
	North 24 Parganas	10902425	7293723	3710426	3075842	1694024
	Burdhwan	8310170	5559504	2985217	2474663	1457873
	Paschim Medinipur	6485901	4339068	2565733	2126922	1216353
Medium Growth Districts	Malda	4541493	3038259	1854383	1537233	1045812
	Purba Medinipur	5587778	3738224	2212380	1834003	1021307
	Nadia	5568503	3725329	1994462	1653355	968825
	Hooghly	5851581	3914708	2180845	1807860	964348
	Howrah	5248941	3511542	1802806	1494477	848804
	Uttar Dinajpur	3435257	2298187	1339581	1110476	837404
	Jalpaiguri	4206703	2814284	1612479	1336701	837036
	Birbhum	3860007	2582345	1461281	1211361	790735
	Bankura	3883736	2598220	1762570	1461122	742520
	Purulia	3213666	2149943	1438592	1192553	674988
Low Growth Districts	CoochBihar	3070161	2053938	1215939	1007980	622394
	Kolkata	4433206	2965815	1694799	1404942	612874
	Dakshin Dinajpur	1788835	1196730	740191	613598	381865
	Darjeeling	2010574	1345074	717303	594624	330875

8 Migration Situation in the State

Migration is a significant phenomenon in West Bengal with historical incidence of forced migration from Bangladesh into bordering districts of Nadia, Murshidabad, Dinajpur and Parganas. Over the years, employment-led migration patterns have emerged with the city of Kolkata witnessing massive upsurge in population during 90s owing to commercial, trading and manufacturing related employment opportunities available in the region for impoverished peasantry from agriculturally backward districts. Stagnation of agriculture, and declining livelihood opportunities in handicrafts, have resulted in movement of labour to industrially and commercially advanced districts of West Bengal.

Decadal growth rates of population provide a fair view of macro trends in migration. Low growth districts could have witnessed significant outward migration over the last decade. Bankura, Dakshin Dinajpur, Hooghly and Kolkata have witnessed lower growth rates than the state average. While reasons for outward migration in Bankura and Dakshin Dinajpur are lack of adequate employment opportunities within the district, availability of better opportunities in neighbouring urban clusters seems to be the predominant reason for outward migration from Hooghly. Declining population in Kolkata is primarily attributed to the growth of social and physical infrastructural facilities in sub-urban regions in North 24 Parganas, Howrah leading to significant shift of residential localities away from Kolkata.

Higher population growth clearly does not indicate the expected migration patterns, with Murshidabad, Malda among the districts with high population growth and limited migration preference. Forced migration from Bangladesh, Nepal, and uneven population control measures, could be the reasons for high population growth in these regions. Classification of districts based on decadal population growth rates is presented in the table.

Classification of Districts Based on Decadal Population Growth		
Category	District	Decadal Population Growth 2001-11
High Population Growth Districts	Uttar Dinajpur	22.90%
	Maldah	21.50%
	Murshidabad	21.07%
	South Twenty Four Parganas	18.05%
	Birbhum	16.15%
	Puruliya	15.43%
	Purba Medinipur	15.32%
Medium Population Growth Districts	Darjiling	14.47%
	Paschim Medinipur	14.44%
	West Bengal	13.93%
	Koch Bihar	13.86%

	Jalpaiguri	13.77%
	Howrah	13.31%
	North Twenty Four Parganas	12.86%
Low Population Growth Districts	Bankura	12.64%
	Nadia	12.24%
	Bardhaman	12.01%
	Dakshin Dinajpur	11.16%
	Hooghly	9.49%
	Kolkata	-1.88%

Analysis of migration patterns indicate that rural-rural migration is more prominent considering the seasonal nature of agriculture leading to workforce resorting to temporary migration for work in farms and brick kilns in other districts. Female migrants outnumber males in rural-rural migration. Considering the seasonal nature of rural-rural migration, select members of families migrate, leaving behind their families. However, in the case of rural-urban migration, more balanced family migration is witnessed considering the often permanent nature of migration.

9 Incremental Manpower Requirements

Manpower growth in the districts of West Bengal is driven by priority sectors as well as ancillary activities. Incremental manpower requirement in the state is completely dependent on the setting up of new industries, or on expansion of existing industries along with the trend of workforce migration.

Keeping the current realities of the state in view, along with possible economic growth that could be created in various sectors due to favorable government policies, the following estimations on incremental manpower requirement has been arrived at. According to KPMG estimates, an additional increase in incremental manpower requirement during XII plan and XIII plan periods will be 5 million and 4.3 million. In the XII plan period, the targets of job opportunity to be created per annum are 10 lakhs per annum. However, significant portion of the new jobs created, especially in Agri-Allied activities (0.55 million during XII Plan), Construction (1.1 million during XII Plan), Trade & Retail (1.1 million during XII Plan), would witness mere realignment of workforce displaced from agriculture - due to the expected impact of mechanization on cultivation activities.

Further, incremental manpower requirements have been classified on the basis of skill requirements. Specialized skills denote those skills acquired through professional degrees (study duration greater than 5 years after Std X), medium skills denote skills acquired through vocational training (study duration greater than 3 years after Std X) and basic skills denote those that require basic understanding of job, which are acquired on the job with minimal/no training requirements. Details of sector wise skill requirements during 2012-22 are presented in the table.

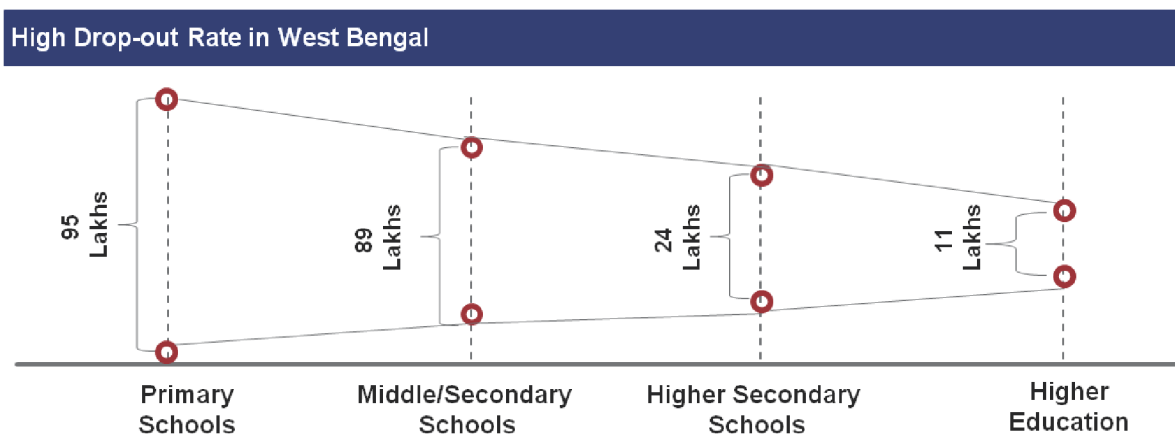
Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	81000	NA	NA	81000	72000	NA	NA	72000	153000
Animal Husbandry	360000	NA	NA	360000	300000	NA	NA	300000	660000
Pisciculture	113789	NA	NA	113789	65022	NA	NA	65022	178811
Agro based & Food Processing	28743	23539	5885	58166	24122	19298	4824	48245	106411
Iron & Steel	25536	19068	4767	49371	19534	15627	3907	39069	88440
Jute & Textiles	9651	7721	1930	19303	7931	6345	1586	15863	35166
Auto/Engineering	21267	17013	4253	42533	17410	13928	3482	34821	77354
Electrical & Electronics	5713	4571	1143	11426	4677	3742	935	9354	20780
Drugs, Chemical & Petrochemicals	10904	9540	2385	22830	9763	7810	1953	19525	42355

Rubber & Plastic Products	11127	8901	2225	22253	9109	7287	1822	18218	40471
Region Specific Industries(Tea, Gems & Jewellery, Port Based Industries)	4027	3222	805	8055	3297	2638	659	6594	14649
MSME (Manufacturing /Assembling /Processing)	205668	119973	17139	342780	171900	100275	14325	286500	629280
Repairing & Maintenance	57672	33642	4806	96120	48060	28035	4005	80100	176220
Construction	911922	138170	55268	1105359	699476	186527	46632	932635	2037994
IT&ITES	NA	38700	141300	180000	NA	25800	94200	120000	300000
Healthcare	211269	25855	46993	284116	359367	43979	79935	483280	767396
Transportations and Logistics	421927	61001	25417	508345	349660	50553	21064	421277	929622
Trade, Retail	952956	137777	57407	1148140	686128	99199	41333	826660	1974800
Hospitality	174917	62470	12494	249881	169776	60634	12127	242537	492418
Communication	93251	38971	6959	139181	77279	32296	5767	115342	254523
Banking and Financial Services	103982	12233	6117	122331	96539	11358	5679	113576	235907
Education and Training	26442	20868	52000	99310	17628	13912	34667	66207	165517

10 Human Resource Development Scenario in West Bengal

10.1 Skill Training through Formal Institutions

Successful implementation of universal education programs at school level has triggered the need to expand higher education facilities across India, and more specifically in West Bengal, being the second most densely populated state in India. Limited growth of higher education capacities in comparison to school enrollments has created a widening gap over the years, leading to significant drop outs after school education. A view of current enrollment status indicates that only 11 lakh students would have access to higher education from around 95 lakh students entering the school system. Considering the magnitude of the gap in education system and limitations in the growth of quality higher education, vocational education and training has a significant role to play in bridging the gap in the education system in West Bengal.



While the higher education capacities are low in the state, market alignment of the existing programs also seems to be an issue. Overview of higher education capacities in West Bengal as on 2011 shows that Arts & Commerce streams contribute to a large number of available seats at UG as well as PG levels. Employability of graduates from these streams is a key issue, with limited core industrial job opportunities available for these candidates. In the technical education stream, engineering capacities have witnessed significant growth over the last five years. However, quality of education in a majority of colleges, is a big challenge - further widening the gap between job market requirement and institutional supply. The state has significant variations in gender based distribution of enrollments. Enrollment of girls in engineering streams is abysmally low, while it is higher than boys in arts streams.

Category	UG Enrollments			PG Enrollments
	Boys	Girls	Total	Total
Arts	389127	400254	789381	48171
Science	93700	12961	106661	20710
Commerce	84298	4631	88929	5031
Education	5363	1323	6686	2874
Law	4019	547	4566	524
Engineering	63556	3142	66698	4713
Management	371	39	410	4235
Others	2444	373	2817	8839
TOTAL	642878	423270	1066148	95097

Further, availability of higher education opportunities are not uniform across the districts. While districts like Kolkata, Darjeeling, Burdwan, Bankura, Hooghly, Birbhum, have considerably high college density, Uttar Dinajpur, Malda, Jalpaiguri have inadequate higher education facilities.

District Wise College Density Distribution										
Region	General Degree	BEEd	Physical Education	Law	Music	Art	Engineering & Technology	Business Management & Hotel Management	Total	Density(Colleges Per lakh Population)
Kolkata	66	15	3	4	1	1	18	5	113	2.52
Darjeeling	21	3	–	2	–	–	2	3	31	1.68
Bardman	31	11	–	4	1	1	15	9	72	0.93
Bankura	21	7	2	1	–	–	2	–	33	0.92
Hooghly	28	7	1	1	–	–	9	2	48	0.87
Birbhum	18	6	1	1	–	–	2	1	29	0.83
West Bengal	452	129	20	26	2	4	85	42	760	0.83

North 24 Parganas	50	10	1	1		1	11	8	82	0.81
Purulia	19	4	–	–	–	–	–	–	23	0.79
South 24 Parganas	39	7		4			5	7	62	0.76
Purba Midnapore	20	11	2	1	–	1	2	1	38	0.75
Howrah	19	8	–	–	–	–	6	2	35	0.72
Nadia	18	7	1	2	–	–	5	3	36	0.70
Dakshin Dinajpur	7	2	–	1	–	–	1	–	11	0.66
Murshidabad	26	11	3	2	–	–	4	–	46	0.65
Paschim Midnapore	24	6	2	1	–	–	1	1	35	0.59
Jalpaiguri	15	3	2	1	–	–	1	–	22	0.57
Cooch Behar	13	1	1	–	–	–	–	–	15	0.53
Malda	11	8	1	–	–	–	1	–	21	0.53
Uttar Dinajpur	6	2	–	–	–	–	–	–	8	0.27

The state has been undertaking several proactive initiatives towards enhancing vocational training capacity to bridge the gap created by limited technical higher education facilities. Department of Technical Education and Training has a larger skill development mandate under the purview of the West Bengal Government. Existing skill development infrastructure, apart from engineering institutes, include-Polytechnic Colleges, ITI s/ITCs, STVT centers, VTPs, Craft Training Institutes.

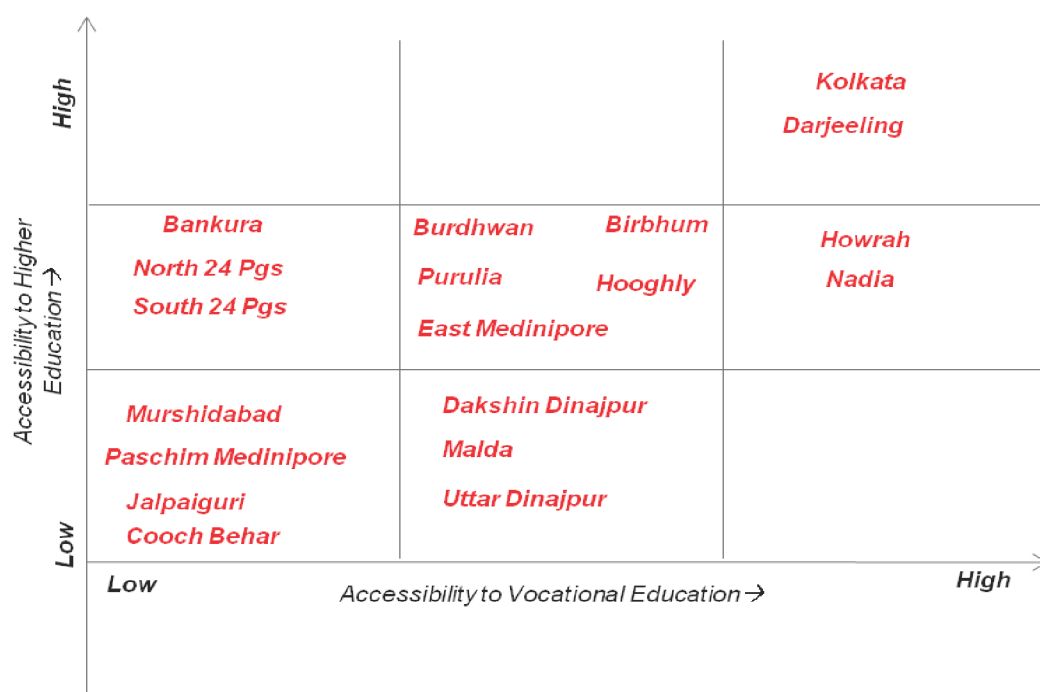
Institutions	Number of Institutes/Centers	Annual Intake
Polytechnic Colleges(3yrs)	73	17, 185
ITI/ ITC(1yr/2yrs)	93	17,216
Vocational Education and Training	3500	2,13,000
STVT Centers (6 months)	139	6,900
Craft Training Institutes	2	60
VTP(Under MED-SDIS)	322	60,000

However, there are significant variations in access to institutional vocational education among the districts of West Bengal. Kolkata, Howrah, and Burdwan have large vocational training capacities while Dakshin Dinajpur, Murshibad and Jalpaiguri, have limited availability of vocational education facilities. Density of vocational educational facilities indicated by number of available seats per thousand population is a better indicator to gauge the accessibility to vocational education. Districts of Jalpaiguri, Murshidabad and Bankura have least vocational education capacity densities

among the districts of West Bengal. The participation of private vocational players measured in terms of proportion of overall seat capacities, stood at 11.1% - indicating low penetration levels of for-profit vocational education providers in the state of West Bengal. District wise ITI/ITI/Private ITI infrastructure details are given in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Kolkata	4		11	15	2324		596	2920	0.65
Howrah	3	1		4	1600	56		1656	0.34
Burdhwan	5	2	2	9	1216	96	168	1480	0.19
Nadia	2	1	4	7	936	222	216	1374	0.27
Purba Medinipore	3	1	4	8	780	56	300	1136	0.22
Hooghly	4			4	908			908	0.16
Birbhum	2		1	3	700		100	800	0.23
Paschim Medinipur	3		2	5	600		112	712	0.12
Darjeeling	4			4	700			700	0.38
Malda	2			2	656			656	0.16
Uttar Dinajpur	3			3	524			524	0.17
Purulia	2			2	502			502	0.17
South 24 Parganas	2	2		4	352	112		464	0.06
Bankura	3		1	4	412		44	456	0.13
North 24 Parganas	3	2	3	8	136	84	164	384	0.04
Cooch Behar	2			2	360			360	0.13
Dakshin Dinajpur	2			2	344			344	0.21
Murshidabad	3		2	5	204		56	260	0.04
Jalpaiguri	2			2	56			56	0.01

In order to address the capacity gaps in higher and vocational education, districts are classified based on the density of higher and vocational education capacities per population. Districts of Paschim Medinipore, Jalpaiguri, Cooch Behar and Murshidabad, have low accessibility to both forms of education - indicating the immediate need to enhance capacities. Per capita availability of vocational education capacities are low in Bankura, North & South Parganas districts. Detailed classification of districts is presented in the chart.

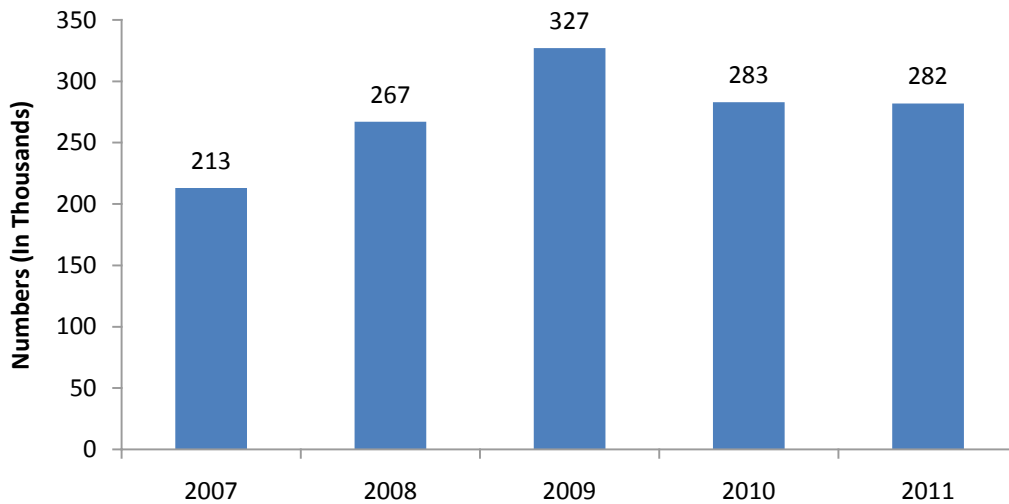


To address the emerging skill deficiencies in the current workforce, as well as additional labour force over the next decade, several capacity expansion measures have been planned - keeping in view the local industrial requirements.

Category	Targets for 2016
Polytechnic Colleges(3yrs)	<ul style="list-style-type: none"> • Addition of 40 new Polytechnics. • Introducing 2nd shift. • Introduction of PPP mode in Polytechnics. • To bring the annual intake to 30000
ITI/ ITC(1yr/2yrs)	<ul style="list-style-type: none"> • Addition of 69 new ITI s with intake capacity 30,000. • Up gradation of ITI s under scheme of "Center of Excellence "with fund assistance from Govt. of India. • Up gradation of ITI s under PPP mode where interest free loan up to Rs. 2.5 crore will be available from each ITI/ITC • Setting up about 160 ITI s and 700 SDCs in PPP mode in the subserviced blocks under the scheme of Govt. of India (Training capacity for ITIs-64,000 and for SDCs-2,10,000).
Vocational Education and Training	<ul style="list-style-type: none"> • Increase total intake capacity to 3,25,000

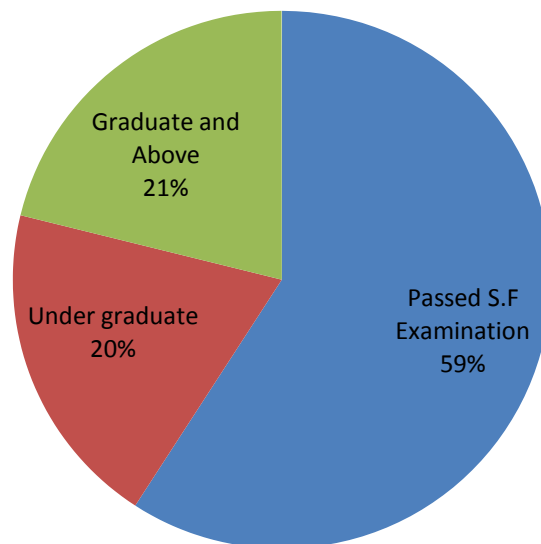
Efforts towards enhancing skill development in the state over the years, have resulted in a significant growth in available trained manpower. Growth in live registrations, indicative of number of employable people hovering around 2.8 lakhs for last two years, shows that employment opportunities in the state are sufficiently absorbing annual output from various institutes.

Live Registrations in Employment Exchanges



However, composition of live registrations shows a clear dominance from students passed S.F Examination seeking job opportunities - indicating a need to make them employable through relevant skill development.

Category wise split up of Job Seekers in West Bengal (2011)- Total Registrations: 2.82 lakhs



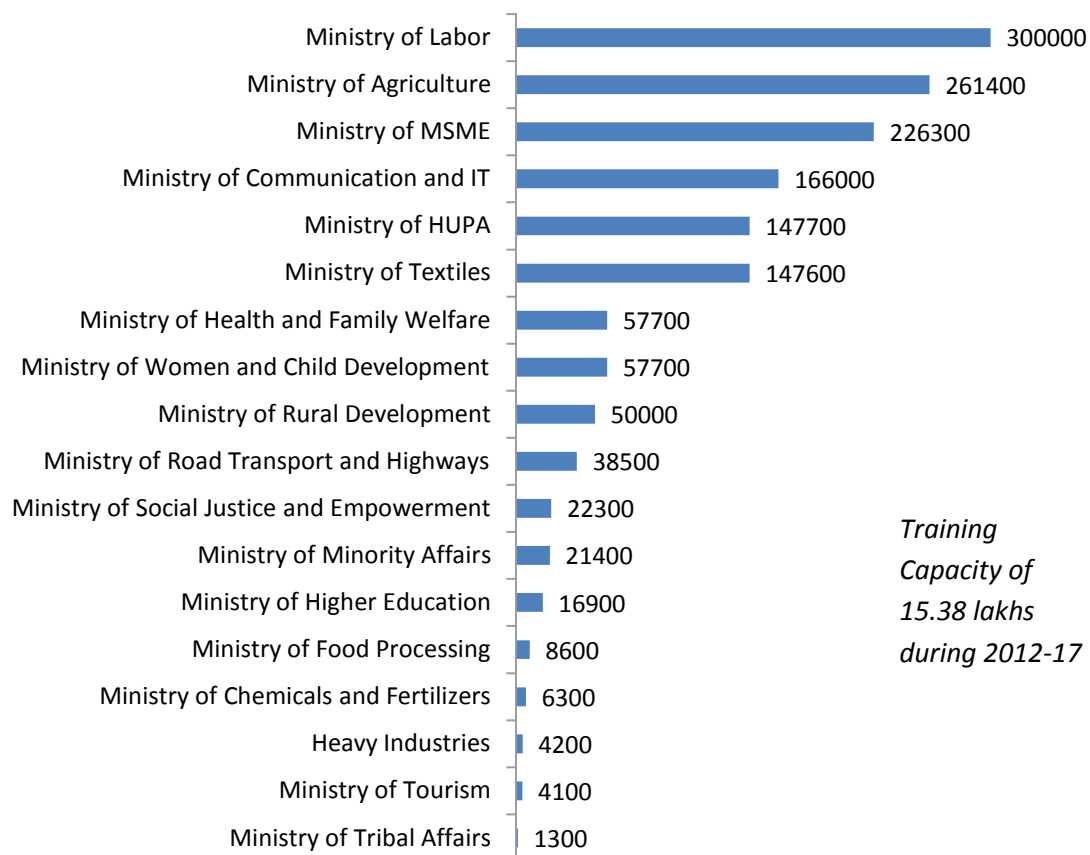
10.2 Skill Training through Government Endowments

Skill development is one of the national priorities for Government of India. In the Central Government, around 20 Ministries are closely involved with skill development initiatives either through setting up own skill training capacity. In West Bengal has, Department of Labour Department, Micro & Small Scale Enterprises & Textile Department, Panchayat & Rural Development Department, Food Processing & Horticulture Department, Information & Technology Department have active involvement in skill development programs.

Department	Description of Initiatives
Labour Department	<ul style="list-style-type: none"> • Providing skill up gradation training to the pre -departure emigrant trainees. • Providing 50% fund assistance to the registered job seekers participating in vocational training. • Organizing mock test for various competitive examinations. • Arranging vocational guidance/counseling programs for assessment of job seekers ability to avail of the opportunities in employment market.
Micro & Small Scale Enterprises & Textile Department	<ul style="list-style-type: none"> • 10185 sericulturists have been trained up for skill up gradation in plantation, rearing & reeling activities during 2011-12 • 275 micro & small entrepreneurs have been trained for skill development during 2011-12 • Providing skill up gradation training for Lac cultivators, coir cultivators, bee keepers etc. • Arranged advanced skill training for 42 handicraft artisans during 2011-12 • EDP Programmes have been arranged for 1830 entrepreneurs during 2011-12 • About Rs. 1.32 crore has been spent for skill development during 2011-12
Panchayat&Rural Development Department	<ul style="list-style-type: none"> • Animal Resource Development in Dairy, Piggery, Goatery, Duckery, Poultry etc. • Horticulture, floriculture, vermicompost and other bio- manure preparation. • Apiary collection or processing of other forest products. • Food processing including spice making. • Making items from leather, horns and other animal products. • Pottery, shoe making, bamboo/ cane product, mat, pati making. • Weaving, embroidery and garment making, jewellery making etc.
Food Processing & Horticulture Department	<ul style="list-style-type: none"> • Skill Development training through different schemes like National Horticulture Mission, ASIDE, RIDF etc. • 3years Diploma Courses are offered in two Govt. Polytechnics. • Skill training on pre & post harvest management, horticulture farmers, pre sowing techniques for potatoes, high density cultivation of pineapples, organic farming in mango orchards, litchi orchards organic farming of vegetables. • Skill training in production of exotic vegetables like broccoli, capsicum etc.
Information & Technology Department	<ul style="list-style-type: none"> • Skill demand potential on hardware sector has enriched by the Semiconductor Policy of Gol. • One academic council is monitoring the syllabus & training for the manpower requirement of IT industries. • Incubation centers in different districts have been set up to attract new ventures. • Finishing school has been set up to make the fresh engineers industry-ready.

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 15.38 lakh people in total, can be trained incrementally during the five year period of 2012-17. Ministry of Labour, Ministry of MSME, Ministry of Communication & IT are expected to contribute to a significant share of the training. Manpower training targets are more focused on meeting the industrial and services sectors, with significant opportunity for private training providers to explore scheme based training.

Potential Training Capacity in West Bengal during 2012 -17



11 Estimated Training Capacity Gap in West Bengal

Industry wise manpower skills are classified as skilled, semi skilled and unskilled depending on the nature and duration of training and existing training/higher education capacities are categorized to match the three levels. Assessment of existing training infrastructure in comparison to human resource demand over XII Plan Period indicates the significance of West Bengal as a sourcing hub for the workforce requirements of India. Human resource surplus is observed across skill levels. Considering the low employability and characteristics of migration in the state, surplus unskilled workers could be trained suitably in order to sustain current levels of employment in the state. Further employability of these highly skilled graduates is an issue which needs to be addressed through suitable up skilling initiatives.

Skill Category	Incremental Demand	Incremental Supply	Source of Supply	Human Resource Deficit 2012-17
Skilled	4.49 lakhs	11 lakhs	From higher education institutes	- 6.51 lakhs
Semi Skilled	7.83 lakhs	15.38 lakhs	From Vocational Training Institutes and Various Govt Training Schemes	- 7.55 lakhs
Un-Skilled	38.31 lakhs	68.62 lakhs	School drop-outs without any access to formal skill training	- 30.31 lakhs

12 Youth Aspirations in West Bengal

Having estimated the incremental manpower requirements from an industry perspective, it is important to understand the career aspirations of youth, who would be the ultimate beneficiaries of employment generation in the state.

Sectoral Preference for Employment

Based on interactions with youth on a sample study across the districts of West Bengal, sectors taken for manpower estimations were classified as high, medium and low aspiration categories based on their preference to work. Several factors such as entry level salaries, work environment, job location, and regional factors, seem to influence youth preferences. Sector-wise preferences are presented in the table.

Sector	Aspiration To work	Sample Characteristics
Sericulture	High	Farming communities
Animal Husbandry	Moderate	Farming communities
Pisciculture	Low	Farming communities
Agro based & Food Processing	Low	Vocational Training Students
Iron & Steel	Medium	Vocational Training Students
Jute & Textiles	Low	Vocational Training Students
Auto/Engineering	High	Vocational Training Students
Electrical & Electronics	High	Vocational Training Students
Drugs, Chemical & Petrochemicals	Low	Vocational Training Students
Rubber & Plastic Products	Medium	Vocational Training Students
Gems & Jewellery	High	Vocational Training Students
MSME Manufacturing/Assembling/Processing	Low	Vocational Training Students
Repairing & Maintenance	High	Vocational Training Students
Construction	Low	General Youth
IT&ITES	High	General Youth
Healthcare	High	General Youth
Transportations and Logistics	Medium	General Youth
Retail	Low	General Youth
Hospitality	Medium	General Youth
Communication	Medium	General Youth

Banking and Financial Services	High	General Youth
Education and Training	High	General Youth

Economic background – a key influencer of choice of further study

Economic background of an individual is one of the key factors influencing the program chosen for further study. Course fee level, time taken to be gainfully employed, level of sophistication, and social perception of the course, are the other key determinants. Typically, students from weaker sections of the society, both economically and socially, prefer vocational courses over higher education programs. Higher education programs were considered a significant investment, both monetarily and time-wise, and moderately risky in terms of cost and benefit and hence, beyond the reach of students from weaker sections.

Significant influence by peers and family in career decisions

Students in both graduate and ITI categories were significantly influenced by their peer circle and family members, in their preference for courses. Some students had sought opinions from their school teachers before deciding on the courses. External marketing activity by private players helped create awareness amongst students and their parents, though it did not contribute significantly in their final decision making process.

Accredited courses – popular choice of study

Vocational programs, especially NCVT/WBSCEVT accredited courses, were popular with students as there is almost assured placements. Between NCVT and WBSCEVT, NCVT had higher probability of placement success with government and leading private industries. Non-accredited courses such as those in MES, which are aimed at skill development and not as an entry qualification for a government job, was not observed to be popular with the student segment.

Preference for government jobs over private

Youth preferred employment with government organizations over private. This preference was driven by factors such as job security, perceived 10am -5pm working culture, adequate salary and other perks, insurance schemes for government employees etc. Students from ITIs perceived private sector jobs to have low job security, be technically advanced and hence difficult, coupled with long working hours and relatively low salary, while the graduates were more amenable to adapt to the private sector working environment.

Awareness of career opportunities high in industrialized districts

Awareness of career opportunities seemed correlated to the level of economic progress of the districts. Higher awareness levels were observed in students from the economically developed districts, compared to those from backward districts. ITI students had moderately high awareness of the job opportunities in the government sector, and regularly kept track of apprenticeship-related advertisements in the newspaper while the graduate students did not have a clear idea of opportunities specific to their stream of study, in the government sector. Awareness of job opportunities in private industries for their respective educational profiles was very low in the graduate category, in comparison to their ITI counterparts who fared better in knowledge of typical roles in their sectors of interest.

Preference for employment over entrepreneurship

Overall entrepreneurial pursuit was observed to be low-moderate in the ITI category, while it was low in the graduate category. Awareness of entrepreneurial activity was also low, and there was lack of awareness on operational and financial support that could be received from state agencies for self employment.

Preference for white collar jobs

Both categories of students had a strong aspiration for white collar jobs over blue collar jobs, though the ITI students were moderately less averse to shop floor jobs.

Higher than market level salary expectations from first job

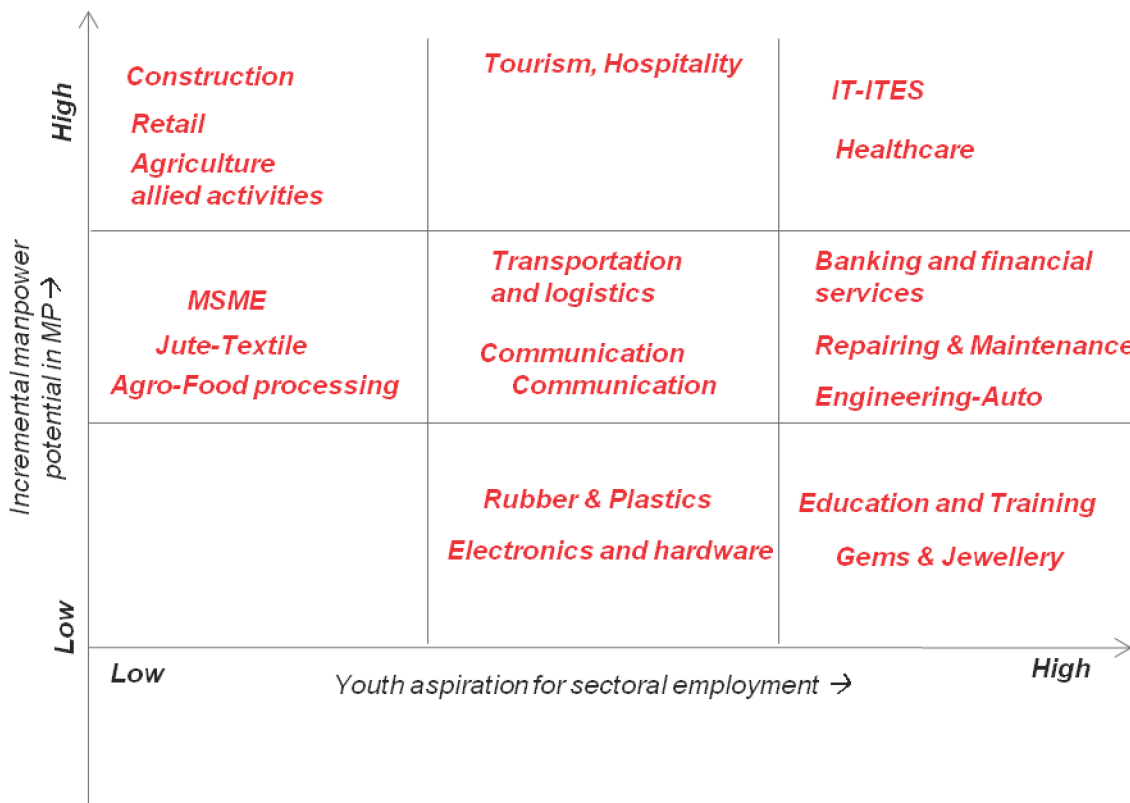
Youth in the state seem to have higher expectations than market level salaries.

Preference for migration for work

Students from both categories were willing to migrate across districts and across states, to find their desired career opportunity. Female students, especially in the ITIs, were concerned about family pressures not to migrate - while their urban graduate counterparts were more willing to migrate

Skill Development Attractiveness Matrix for the State

The following matrix has been arrived at, based on incremental employment potential in a sector mapped against preferences of skilled youth for a career in the respective sectors. This indicates a clear mismatch between student aspiration and job demand available in the state. Sectors such as retail, construction, agri-allied activities, Iron & Steel need to work on building a positive image and providing the right working environment/perks to attract talent. Traditional high employment generating organized sectors like IT/ITES, Healthcare, Education etc, have high employee work preference - however incremental job opportunities in these sectors are not expected to be very high.



13 Institutional Challenges in Skill Development

Government of West Bengal has initiated several measures to promote skill development in the state. While the objectives of skill development initiatives are by themselves good, implementation of the initiatives is fraught with challenges.

The government has been in the forefront of implementing several Central and State funded skill training initiatives. There are over twenty government departments involved in various forms of skill training. However, the focus on provisioning and financing of skill development activities has not been balanced with a mechanism for ensuring the effectiveness of the same. This significantly hampers the achievement of learning outcomes and employability in the open market.

There are instances where certain districts in the state have a significant presence of specific native industries, but have not been able to source the right set of candidates from the home districts - and are hence forced to look for manpower from other states. Besides non-availability of skilled manpower, union/labour issues with employees from home district are cited as the next key reason.

Currently, there is no formal mechanism to periodically review and revise the curriculum based on industry requirements. Traditional engineering trades, though popular amongst students, are decreasing in their relevance to industry, due to increased automation and technology deployment - e.g: Welding, Turner, Fitting etc. Minute segmentation of courses under Modular Employability Scheme, without taking into account holistic learning needs of the industry, can also be cited as an outcome of lack of such review mechanism.

With regard to program delivery, most of the vocational trainers opined that the frequency of refresher trainings provided are not adequate to understand the subjects in detail, and are facing challenges when training the students, especially on latest introductions in the curriculum. Faculty vacancies, especially in vocational training institutes, are significant, and are filled using guest faculties on a temporary basis, with 11 month contract. According to stakeholders in several districts, most of the guest faculties are always on the lookout for their next job, hence compromising on the quality of delivery.

During discussion with stakeholders, issues such as delay in conduct of examinations and award of certifications in MES training programs were highlighted. In certain instances, the dates of MES examinations have been uncertain even after 4 months of course and in certain other courses of the previous batches, students have not received their grades and certificates for more than 3 months.

ITI and ITCs, especially in backward districts, find it difficult to engage with private industries for apprenticeship program due to various reasons such as lack of a policy mandate and incentives to industry to offer apprenticeship program, and due to lengthy administrative formalities associated with the same. This significantly affects the industrial exposure available to students.

Industry tends to give preference for trainings that are certified at national levels, and for those that have stringent admission norms. Due to these reasons, those pursuing NCVT courses are at an advantage over their WBSCEVT counterparts. Courses offered by a few ITIs/ITCs have not been able to receive affiliation from NCVT, as they could not meet the accreditation norms - such courses continue to be accredited by WBSCEVT despite lapses in norms.

With regard to training programs funded by government endowments, most programs are out-of-sync with open market requirements or the industry needs. This lowers the impact of the local livelihood training programs on providing meaningful employment or entrepreneurship opportunities to people.

Interactions with skill training providers in the state reveal that funding for the initiatives are not linked to the impact of training on students earning potential. Such a mechanism ensures that there is no incentive for skill training providers to improve their training performance. In training programs where there is a stipend component, students often enroll for the sake of stipend and not for gaining skill.

There is no formal mechanism to consolidate information on skill availability in districts, which industries can use to recruit from. There are instances of industries in Haldia and Howrah wanting to recruit from far-off districts, but they are not aware of the modalities to reach out to them.

At the other end of the spectrum, aspiring small scale entrepreneurs in the district face several roadblocks, be it in site identification and occupation, or in securing funding from banking institutions.

14 Workforce Related Issues faced by Industry

Based on interactions with industry, it is observed that challenges are often related to quality of the workforce than quantity. Most of the industry personnel opined that quality issues in the state are two-dimensional - technical knowledge and behavioural aspects - with prospective employees lacking in either or both of them.

Industries, especially in the secondary sector, find it difficult to employ appropriate manpower as most skilled graduates prefer to work in services sector than in manufacturing. While recruitment of skilled manpower is one side of the challenge, retaining them in the system beyond their learning/training period is the other challenge. Industries in sectors such as textiles, construction, iron & steel etc find it difficult to retain employees in the operational segment, beyond a year. While employees in these industries quote low salaries coupled with long working hours and harsh working conditions as the key reasons for attrition in their industry, representatives from the industries differ in their opinion.

A generic preference for out-of-district workforce was observed in most of the medium and large scales organizations interviewed. This was primarily due to the belief that the level of unionization/organization amongst out-of-district workforce would be lower than home grown workforce, and that productivity would be higher as they would not opt for frequent holidays. They also tend to stay closer to the factory/office, ensuring reduced incidences of late incomings. To the extent possible, industry preferred employing women over men, due to their perceived dedication to work at hand.

Industries, often opine that their views as members of the Institute Management Committees (IMCs), are often not considered. Industries also expressed their views on inadequacy of employable skills amongst youth, who graduate both from formal and non-formal training institutions. Significant amount of the initial years are spent on training freshmen employees, both on technical as well as behavioural aspects of working in a formal organization set up.

15 Institutional Recommendations for Skill Development in the State

15.1 Recommendations for the Government of West Bengal

1. Capacity building in Vocational Education

Based on the current level of penetration in vocational education (Refer to section on “Current State of Human Resource Development”), focus areas for Government to achieve capacity building are classified as immediate and medium to long term target regions. Districts of **Paschim Medinipore, Jalpaiguri, Cooch Behar, and Murshidabad** having low accessibility, to both higher and vocational education, need to immediately to enhance vocational education capacities. While **Bankura, North & South Parganas** districts, having low penetration of vocational education and medium level of higher education penetration, should be medium- long term targets.

2. Setting up Anchor Institutes for Manpower Development

Setting up state level Anchor institutes in the following identified focus sectors, will go a long way towards enhancement of technical competence and manpower. Focus Sectors identified for the state are Engineering-Auto (West Medinipore, Howrah), Iron & Steel (Burdhwan), Jute- Textile (Hooghly), Tea Processing (Darjeeling), Gems & Jewellery (Kolkata), Mining (Birbhum), IT/ITES (North 24 Parganas), Chemical and Petro Chemicals (East Medinipore), Sericulture (Malda), Fisheries (South 24 Parganas), Solar Energy (South 24 Parganas), Port Based Industries(East Medinipore) and Tourism (Darjeeling). Anchor Institute should be chosen based on their industry acceptance, demonstration of their understanding of sector, proof of availability of faculty, research/study infrastructure and support system and their state and national level industry connect.

Functioning of the Initiative

- Anchor institutes should set up exclusive Cell for Industrial Skill Enhancement (CISE) and engage full time employees as per the requirements.
- The Institute will act as the focal centre for training programs in the respective sectors in the entire state, in collaboration with any co-anchor sector, if required.
- The Institute has to submit a proposal with details of proposed program implementation (including details of training programs to be conducted)
- Skill Development Council will approve the training programs and associated budget based on objectives intended to be achieved, and the action plan for the same
- Periodic (preferably quarterly) meetings of stakeholders need to be conducted to review progress on initial budget and assess deviation from the said plan. Brief progress update needs to be submitted to the Skill Development Mission

Role of the Anchor Institute

- To focus on enhancing technical and managerial competence of manpower in the respective sectors, through appropriate training programs
- To collect information on sectoral courses (all levels – ITIs, UG, PG) offered and review them for any up gradation required for making it industry responsive
- To suggest introduction of short term skilling courses for those already working in the industry
- To prepare teaching and learning material for skill training programs
- To constantly interact with industry and introduce new training programs of high standards

- To provide an opportunity for students pursuing courses in the sector to interact with industry professionals by encouraging student-industry interaction forums
- To encourage faculty to undertake industrial research and consultancy activities, so that they stay abreast of the industry developments
- To appoint, not more than 3, support institutions per sector across the state to support in performing its activity efficiently

Nature of Government Assistance to be provided

Total financial support towards capital and operating expenses should not exceed the budget limit (Eg: INR 2 crore – INR 10 crore) for each sector for the entire operative period. Progress of the institute should be reviewed annually for continuing financial assistance

Anchor and Support Institutes to be provided financial support for the following

- **Capital Expenditure:** Cost of equipment (not land and building) to be released based on project progress, Reasonable Pre-project expenses (to be decided), Limited contingency expense (to be decided)
- **Operational Expenditure:** Cost of office consumables, communication expenses and travelling of faculty

Review of the Scheme:

Each sectoral anchor institute will be reviewed annually for performance based on the following aspects

- Industry feedback of the modifications to the existing courses and new programs launched
- Market popularity of the courses launched
- Number of faculty development activities undertaken
- Number of research/consultancy activities undertaken
- Accomplishment against time schedule

3. Incorporating Skill Training in mainstream K12 Education

The initiative should aim at incorporating vocational skill training courses in the mainstream K12 school education.

Objectives:

- To impart training in simple marketable vocational skills to students in Std IX and Std X
- To develop vocational interests and aptitudes in enhancing exploration of vocational preferences
- To facilitate the students in making choice of vocational courses at the higher secondary level.
- To prepare students for participation in work-experience as a desired dimension of academic education

Features

- On a pilot basis, Pre-Vocational Education will be introduced only in the schools where vocational courses at Std XII are being offered, and the regular infrastructure facilities are available for the chosen Pre-Vocational Course, before implementing in mainstream schools
- After completion of Pre-Vocational at lower secondary stage, the pass outs should attain marketable skills in the course concerned

- The evaluation in classes IX and X can be done by the schools. However the grades awarded by the schools in class X can be reflected in the Board's Certificates with the title of the course concerned. They can be equated to credits which can be taken forward for further education in vocational streams

Implementation

- Form a joint committee comprising members of Department of School Education and Department of Vocational Education & Training and Association of State Board Schools
- Develop a framework for incorporating vocational courses in mainstream school education
- Incentivise adoption of this scheme amongst K12 institutions for credit transfer between vocational and mainstream school education
- Joint committee can submit a report on the feasibility of scheme, and the roadmap for implementing the scheme within a period of 6 months

4. Increased Focus on Demand Driven Skill Training Programs and validating the effectiveness of choices made through tracer studies

Objectives: The objective of this initiative would be to increase the effectiveness of skill training programs delivered by government departments such as HUPA, DRDA, Dept. Of MSME, Department of Agriculture, Department of Food Processing, Department of IT, and other Departments with a skill development mandate - by ensuring creation of skill supply oriented towards skill demand

Features:

- Program to be designed such that it is demand driven and there will be high probability of market acceptance
- Area in which training will be provided to a particular BPL youth, can be decided after assessing market demand and subsequently, assessment of the candidate aptitude
- Increased employability prospects of trainees
- Increased support for successful candidates undertaking self employment, through "Escort services" or Incubation - with two year follow up to ensure sustainability of micro enterprises set up through above schemes and assured credit linkages with Banks

Implementation:

- Form a District level Steering Committee comprising members of DRDA, HUPA, District Lead Bank, leading local NGOs and ex-participants of similar training programs conducted in the past
- District level Steering Committee to periodically monitor the progress and review the performance of training programs undertaken by the various constituents under District Administration
- District level Steering Committee to commission periodic studies or evaluations of market relevance of courses and to trace the effectiveness of programs delivered, to be done by agencies as decided by the Committee
- Form a State level Steering Committee co-chaired by Principal Secretary, DRDA and HUPA, to periodically review and monitor progress of district wise performance of training mandates
- State level Steering Committee to include representation from other departments with significant training targets
- State Committee to devise schemes for trainer development and to ensure availability of master trainers for skills with high market demand
- State Committee to provide opportunity for Provide a forum for networking with interest groups and stakeholders and ensure better identification of opportunities and demand

5. Technology enabled Faculty Development Model

Objectives: This initiative aims at continuous development of faculty skills in their respective domains through periodic VSAT based training sessions

Features:

- Centre for Faculty Development in Vocational Skills would be the nodal point for all faculty development activities
- Would work on upgrading the knowledge base of existing faculty members through short term frequent refresher programs offered on a VSAT-based platform
- Would offer advanced technology programs for upgrading skills and knowledge of faculty in emerging areas of technology in their respective fields of study, on a VSAT based platform
- Would undertake work related to development of teaching methodologies, pedagogy and content on upcoming technologies and trends in various fields of study as prescribed
- The main studio would be located at the head office of the Central from where lectures will be delivered. The lectures would be broadcast across VSAT based regional training centres from where faculty from neighbouring regions will participate. The training sessions would simulate a live environment with multi-user discussions

Implementation

- WBSCVET can draw an action plan for implementing the VSAT based faculty training model including identification of locations of regional centres
- WBSCVET can form a committee to invite bids for setting up VSAT based training centres

Nature of Government Assistance to be provided

Total financial support towards capital and operating expenses should not exceed a prescribed limit for each institute for the entire operative period. Progress of the institute will be reviewed annually for continuing financial assistance

Nodal and regional VSAT based training centers to be provided financial support for the following

- **Capital Expenditure:** Cost of equipment (not land and building) to be released based on project progress, Reasonable Pre-project expenses (to be decided), Limited contingency expense (to be decided)
- **Operational Expenditure:** Cost of office consumables, communication expenses and travelling of faculty

6. Transforming District Employment Exchanges to Skill Management Centers (SMC)

The initiative aims at enlarging the role of District Employment Exchanges to Skill Management Centres that will reach out to government and private industry to gather information on vacancies at district, state and national level - and make the information available to relevant job seekers in the district

Features

- Skill Management Centres will create a skill repository of skill requirement and skill supply in the district
- For understanding skill requirement, SMC will capture labour market information from key industries in the district
- Skill Management Centres will liaise with training institutions to get a database of candidates available for work along with their relevant skill sets

- The initiative will offer a platform to bring job seekers and job providers together and support in placement initiatives

Implementation

- At the district level, form a joint committee comprising of members of Dept of Labour & Employment, Dept of Industries, Govt of West Bengal and Dept of Technical and Higher Education
- Create a periodic forum for sharing of information amongst the various stakeholders
- Track the benefits accrued to the candidates enrolled with SMCs

15.2 Recommendations for Industry

1. Short term Training Programs Courses through Public Private Partnership (PPP)

The aim of the initiative will be to provide infrastructural and financial assistance for running short term training programs under PPP mode. Such courses could be offered in an existing educational institution, or can be offered in an infrastructure shared by the district administration. Industry partners can run training programs aligned to existing courses with addition of new subjects or start new courses, addressing their specific requirements.

These could be offered to students of existing colleges, to apprentices and external trainees chosen through respective district administration departments.

Implementation of Scheme

- Form an advisory council consisting of District Administration officials, Industry Officials and Institutions. The advisory council should meet at least once in a year
- The council will review and approve the set of training activities, courses to be offered, supply of faculty etc for the subsequent academic year
- The council will review the infrastructure requirement and sharing of responsibilities between various stakeholders involved, such as that of providing land and buildings at concessional rates, supporting in the procurement of equipments, sharing of teaching staff between the industry and institutions etc
- Submit annual performance report of the scheme to the Department of Vocational Education & Training, Govt of West Bengal

Role of the Government

- Nominate members for the advisory council
- Provide necessary support for accreditation of courses, through relevant bodies

Role of Industry

- Raise a minimum 25% of requirement of cost of machinery and equipment and required funds, if any, for up gradation of infrastructure
- Sponsor trainees for a minimum of 25% of the intake
- Provide teaching support through industry personnel
- Industry personnel to provide training support to academic faculty
- Nominate members for the advisory council

Nature of Government Assistance to be provided

- For running courses in existing institutions, the host institute needs to offer basic infrastructure facilities such as land and building. The cost of machinery and equipment limited up to a specified amount can be contributed by the Government of West Bengal. Balance cost shall be borne by partner industrial house
- For courses to be launched in non-educational institutions, respective district administration can offer land and (or) buildings - and the other infrastructure cost should be borne by the private player to the extent of 100%

2. Playing an active role in establishing Sector Skills Council

National Skill Development Corporation is tasked with developing an enabling environment for skills development through promotion of Sector Skills Councils. Industry players should actively participate in setting up SSCs to complement the existing vocational education system in meeting the entire industry's requirements of appropriately trained manpower in quantity and quality on a sustained basis. All key players in each industry sector should must actively support the activities of Sector Skills Council through the following

- Supporting in the development of skill inventory database for the industry sector, skill-wise, region-wise and identifying skill gaps and technology to be taken up for teaching
- Partnering with educational institutions to train trainers and upgrade skill sets of existing industry employees, and those in the industry value chain
- Support in providing certification and accreditation of industry skills

15.3 Recommendations for NSDC

1. NSDC should provide support towards training manpower in the following priority sectors of West Bengal
 - Iron & Steel, Auto-Engineering, Jute & Textile, Construction, Retail, Tourism, Port Logistics
2. NSDC could play an active role in bringing national/global level training providers to West Bengal by setting up a joint forum of NSDC Investee Training Companies, NSDC partner Training companies and representatives of Government of West Bengal
3. NSDC could support training capacity development in the focus districts of
 - Howrah, North 24 Parganas, Kolkata, Burdhan, Darjeeling, East Medinipore
4. NSDC Sector Skills Councils would need to conduct detailed skill deficit study for priority sectors in West Bengal and develop a roadmap for skill development in respective sectors in the state

15.4 Recommendations for Vocational Training Providers

B2 G Model- Vocational Training utilizing Govt Funding

B2C Model- Vocational Training Funded by Students

B2B Model - Vocational Training Funded by Corporate

Category	Recommendations
B2G	<ul style="list-style-type: none"> ● Provide skill training in conjunction using government endowment training schemes <ul style="list-style-type: none"> ○ Jute & Textile ○ Tea Processing ○ Tourism ● Align training programs for displaced marginal farmers to livelihood activities aimed at supplementing farm income through training in <ul style="list-style-type: none"> ○ Mixed Farming with focus on Fisheries, Sericulture, Animal Husbandry ○ Horticulture – Floriculture, Fruit Cultivation
B2B	<ul style="list-style-type: none"> ● Focus on placement driven training (both technical and non-technical) targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Port Logistics ○ Iron & Steel ○ Construction ○ Organized sector of Hospitality ○ Organized Security Services ● Establish cluster based skill training initiatives in PPP mode in the following industrial clusters, to ensure proximity to market absorption in line with anchor institute locations
B2C	<ul style="list-style-type: none"> ● Opportunity for setting up finishing school training for tertiary sectors such as with high salary potential, where students will be willing to pay and learn - IT&ITES and Banking and Financial Services – Skills in both technical and non-technical category

Summary of sectors requiring skill intervention

Tea Plantations, Processing	<p>Lack of adequately trained manpower both for plantation and processing units. Pruning, weeding and fertilizing are some critical role in plantations.</p> <p>In the processing units, drier operator is a critical skill required.</p>
Sericulture	<p>Awareness levels about advanced pest control techniques are low among cocoon cultivating farmers. Constant skill up gradation for cultivation, fertilizing and pest control are required.</p>
Fisheries	<p>Skill requirements for operating mechanized boats and fish processing are in demand, with majority of workforce still relying on primitive methods.</p>
Animal Husbandry	<p>Low awareness levels about cross breed varieties and fodder techniques, with majority of farming communities opting for animal husbandry as a mere supporting activity along with cultivation.</p>
Farming	<p>Operation, repair and maintenance of farming equipment.</p> <p>There is an increasing need to promote micro irrigation and water management programs in districts witnessing low rainfall and sustainable farming techniques.</p> <p>Lack of knowledge on marketing and processing among marginal farming communities.</p>
Auto- Engineering Manufacturing	<p>Auto industry is facing severe skill shortages in workshop like Painting, Welding (spot), Fitting, Casting and Maintenance.</p>
Drugs, Chemicals & Petro Chemicals	<p>Mechanical, electrical and instrumentation trades are key skill requirements in the industry.</p> <p>Boiler operator, lab staff, process supervisors and quality staff are other key trades in these industries.</p>
Jute &Textile	<p>Industry faces severe attrition problems.</p> <p>Considering the high levels of automation in power looms, industry requires semi skilled operators for Ring frame operation, weaving, processing and Bar-coding machine operations.</p>

Port Based Industries	Industry faces acute shortage of various equipment operators ranging from conveyor belt to cranes.
Tourism & Hospitality	Travel agents are a key requirement for the industry along with tour guides. Hotel & Restaurant industry requires qualified chefs with expertise in multiple cuisines along with front desk executives with good English communication skills.
Healthcare	Allied healthcare workforce including technicians and Para medics is an area that would witness significant shortages considering the low institute supply to these trades.
Banking & Financial Services	Sales and marketing along with data entry operators are among key roles attracting significant employment into the sector.
Construction	Semi skilled to unskilled workers category accounts for 85 percent of the industry workforce. Site roles like mason, bar benders, welders and painters, are critical requirements within construction industry.
Education	Teaching faculty across levels lack skills pertaining to usage of advanced learning tools like digital content.

Sector	Focus Districts
IT-ITES	Kolkata, North 24 Parganas Nadia, East Medinipore West Medinipore, Burdhan
Transportation & Logistics	Kolkata, East Medinipore, Howrah, Darjeeling
Hospitality & Tourism	Darjeeling, Jalpaiguri, South 24 Parganas
Retail	Kolkata, Howrah, East Medinipore, North 24 Parganas
Healthcare	Kolkata, Darjeeling
Financial Services	Kolkata, Howrah, North 24 Parganas
Mining	Burdhan, Birbhum

Sericulture	Malda, Murshidabad, Jalpaiguri
Fisheries	South 24 Parganas
Auto- Engineering	West Medinipore, Howrah
Jute-Textile Industry	Howrah, Hooghly
Chemical & Petro Chemicals	East Medinipore
Iron & Steel	Burdhwan, Birbhum, Purulia
Food Processing	
Gems & Jewellery	Kolkata
Renewable Energy(Solar)	South 24 Paragans, Purulia

16 District Level Skill Gap Studies

16.1 Skill Gap Study of District of Kolkata

16.1.1 Social Profile

16.1.1.1 Demographics

Kolkata, categorized as urban district has a population of around 44.87 lakhs⁸³ as per 2011 Census estimates. Population density of district, 24252 per sq.km⁸⁴, is the highest among the districts of West Bengal with a state average density of 1029⁸⁵ per sq.km⁸⁶. The district, being the state capital with significant employment opportunities, has a high concentration of population. However, with growing social and physical infrastructure in suburban covering parts of Nadia, 24 South Parganas, Howrah considerable population is relocating to these parts under the Kolkata Metropolitan. The district has witnessed increase in female composition of population during 2001-11. Adult gender ratio of Kolkata district has increased from 829 females per 1000 males⁸⁷ in 2001, to 899 females per 1000 males⁸⁸ in 2011. Also, there has been an increase in the child (0-6 age group) gender ratio from 927 females per 1000 males⁸⁹ in 2001 to 930 females per 1000 males⁹⁰ in 2011⁹¹. Kolkata has considerably lower reserved caste population of 6.22⁹² in total district population as per 2001 Census.

16.1.1.2 Literacy

The district has a high literacy rate of 87.14 percent⁹³ as compared to the state's average of 77.08 percent⁹⁴ primarily due to economic growth and political importance of the district, attracting significant private and public participation in school education. Influx of educated people is another key reason for growing literacy levels. There are 2710⁹⁵ K12 schools in the district, of which private sector contributes to 23.77 percent⁹⁶ indicating the high level of private participation. As per 2011 estimates, percentage of out-of-school children in both primary and upper primary level is far lower than the state average. However, special focus should be given to children from migrant labour communities contributing to major share of school dropouts. Comparison of district school education statistics with overall state details is presented in the table.

⁸³ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁸⁴ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁸⁵ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁸⁶ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁸⁷ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁸⁸ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁸⁹ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁹⁰ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁹¹ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁹² http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁹³ http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html

⁹⁴ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

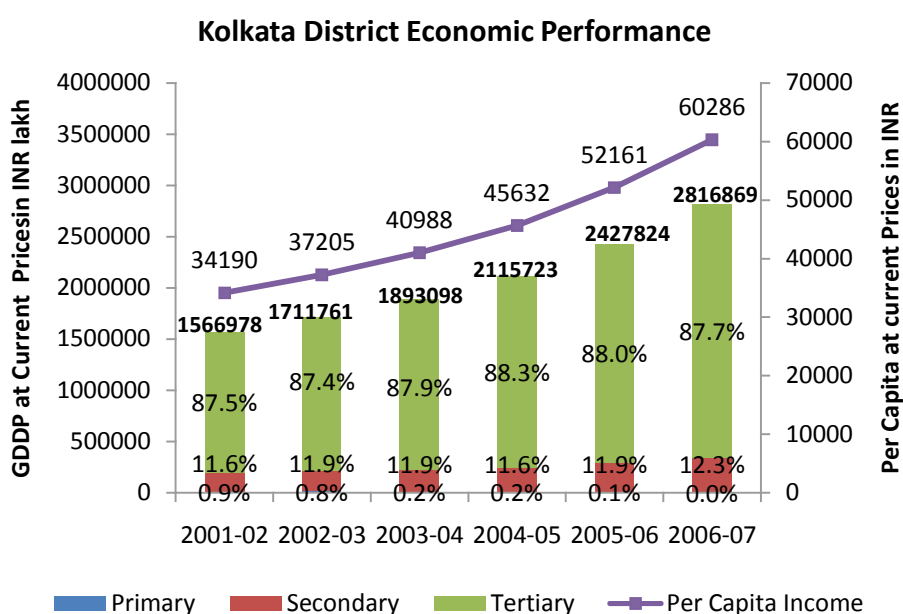
⁹⁵ <http://www.dise.in/drc.htm>

⁹⁶ <http://www.dise.in/drc.htm>

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Kolkata	416080	2778	0.67%	481001	2769	0.58%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.1.2 District Economy

Kolkata is a key district in West Bengal with a second highest share of contribution to the total state economy⁹⁷. The district economy has witnessed a higher cumulative growth of 12.45 percent⁹⁸ during 2001-02 and 2006-07 in comparison to the state average of 11.65 percent⁹⁹. Tertiary sector constitutes to over 87 percent of district economy, indicating the importance of services activities in Kolkata. In terms of absolute contribution, the district accounts for a significant share of the total state secondary sector income. Being the state capital with a relatively affluent urban population, per Capita income of Kolkata is considerably higher than the state average. Per Capita Income of Kolkata has registered a cumulative growth of 12.01 percent¹⁰⁰ during 2001-07. Sub-Sector wise GDDP growth trends of Kolkata are presented in the table.



16.1.2.1 Agriculture and allied sectors

Agriculture and allied activities in the district is constrained by availability of cultivable land for farm related activities as the district covers central part of Kolkata city. Most suburban areas of Kolkata Municipal Corporation which have scope

⁹⁷ KPMG Analysis

⁹⁸ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁹⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

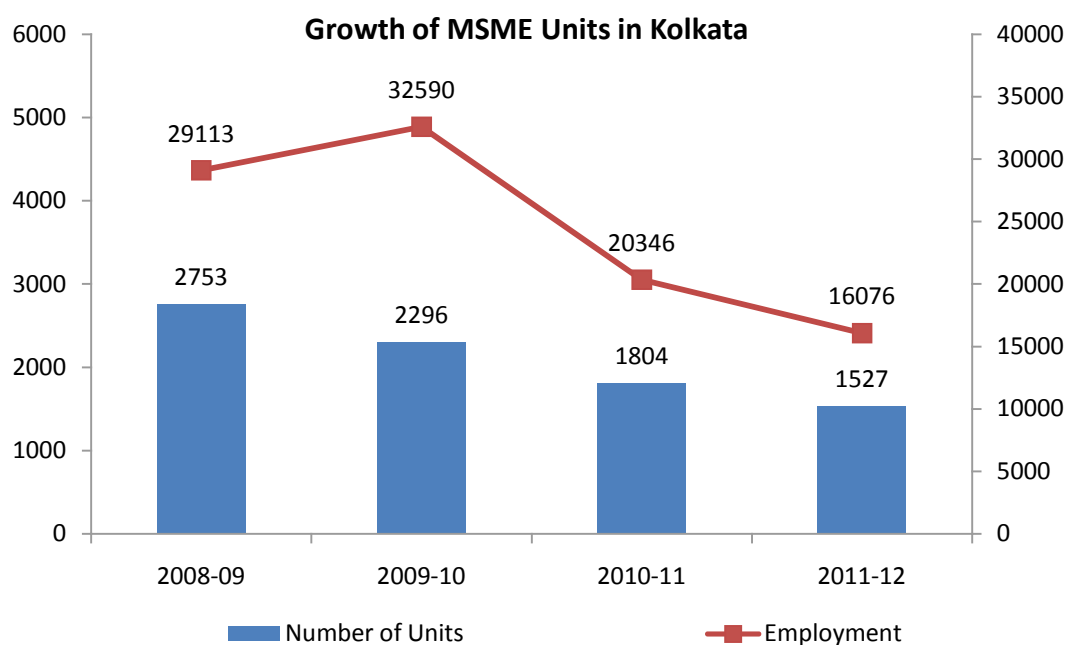
¹⁰⁰ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

for agri-allied activity based livelihood, come under the districts of North 24 Parganas, South 24 Parganas, Howrah, Hooghly and Nadia.

16.1.2.2 Industry

Kolkata is one of the major commercial hubs of West Bengal. As per 2011 provisional data Kolkata has 1027 registered factories with an average daily employment of 20,534. Kolkata houses large industrial players in Electrical, Foot Wear, Ceramics, Metal Processing, Pharmaceuticals. Siemens Electrical, Usha Martin Industries Ltd, Philips Electronics, Stiefel Und Schuh (I) Ltd-Foot wear, Vesuvius India Ltd and ACC Ltd, are some key players operating in the district. Further, many public and private sector enterprises like Coal India Ltd, ITC Ltd have established headquarters in Kolkata city. Incentives in Leather sector for relocation into Leather Complex, along with special incentives to Jute, Agri Implements, has led to increased investments into these sectors.

Between 2008-09 and 2011-12, Medium-Small Scale Industries in the district have grown by 8380 adding an additional employment of over 98,000 during the period. Foundry & Metal Processing, Zari works and Textile are among the key MSME segments in Kolkata district. Employment trends in MSME segments over the recent years are presented in table.

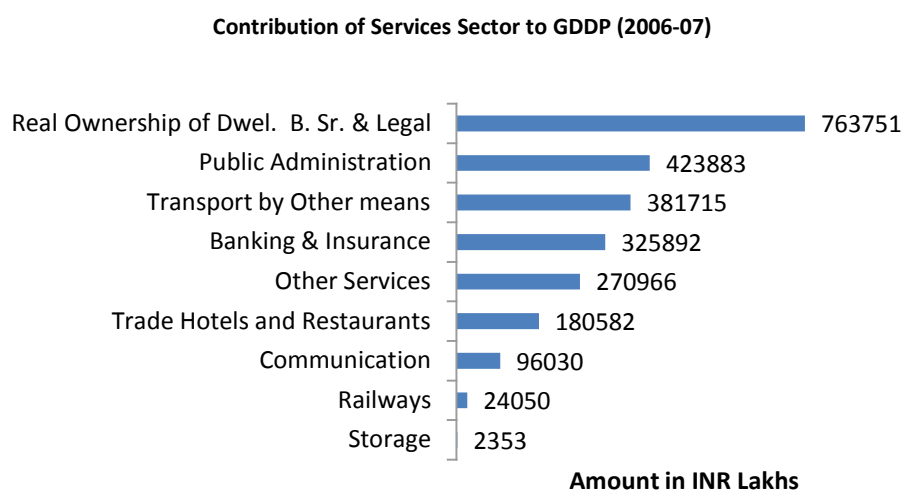


Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Kolkata district.

Existing Clusters	Clusters Identified for Promotion
(i) Foundry & Metal Casting (ii) General Purpose Machinery Tools (iii) Lathe Works, (iv) Readymade Garments (v) Nuts & Bolts, (vi) Steel Re-rolling, (vii) Locks and metal spare parts (viii) Jewellery & Artificial Jewellery, (ix) Optical Lenses, (x) Zari Work, (xi) Wigs & Artificial Hair, (xii) Shuttle Cock Manufacturing (xiii) Rubber molded products, (xiv) Sewing m/ c & jute mill m/c spares, (xv) Imitation ornaments, (xvi) Musical instruments,	Fan Manufacturing, Hosiery Products

16.1.2.3 Services Sector

Kolkata district, being the capital of West Bengal, is a key commercial hub. Tertiary sector has contributed to 87.7 percent¹⁰¹ of Kolkata GDDP during 2006-07. Services sector in the district, dominated by transportation, public administration, banking & insurance and other business services, has grown at a compound annual rate of 12.5 percent during 2001-07¹⁰². Composition of services economy in the district is presented in the table below¹⁰³.



Trade and hospitality is a key services activity in Kolkata primarily attributed to the existence of large number of personal and commercial establishments in the district, and the metropolitan nature of the population.

The district has significant tourist locations. Among the tourist attractions are places of historical and cultural importance such as Victoria Memorial, Indian Museum, Birla Museum, Science city, Botanical Gardens and Eden Gardens.

Kolkata has a mix of old and new hotels from British-era ones like The Great Eastern Hotel and The Grand Hotel to the modern day's Park Hotel, Astor Hotel, New Kenilworth Hotel, Senator Hotel, Flury's and many other fast food retail chains like Mc Donald and KFC.

New Market is a traditional retail hub in the district along with Park Street, Camac Street and Shakespeare Sarani which are considered to be emerging commercial locations with shopping malls like GK Tower, Express Tower, Jasmine Tower, L&T House, AC Market, Fort Knox jewellery mall and Camac Tower coming up in these regions. Gariahat and Shyambazar are shopping markets that cater mostly to the middle class and lower middle class of Kolkata. College Street is famous for its bookstores. Forum Mall, Emami Shoppers City, City Centre, South City, Metropolis, Avani Riverside, Home Town, Axis and Swabhami, are some of the well-known shopping malls.

Traditionally Kolkata has been a destination for private investments in healthcare, considering accessibility of the city from states in eastern region including Bihar, Jharkhand, and Orissa as well as from Bhutan, Nepal. District has the highest bed to population ratio among the districts of West Bengal. Details of healthcare infrastructure in the district are provided in the table.

¹⁰¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁰²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁰³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Healthcare infrastructure in Kolkata¹⁰⁴

Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
5	8008	0	0	0	0	6	1881	13	2104	0	0
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	0	0	9	1711	7	334	8	2277	366	11372
Total no of hospitals and beds		414					27687				

Kolkata has the highest penetration of banking and financial services measured as a percentage of GDDP at 11.57 percent, in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in Kolkata has grown at 2.85 percent CAGR between 2006 and 2011¹⁰⁵ with a predominant share of nationalized banks. Bank credit has grown at a rate of 26.26 percent CAGR and the bank-deposits have had a growth of 23.72 percent CAGR in the past five years¹⁰⁶. Along with national banks, the district being the state capital, houses 30 foreign banks. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

Contribution of railways to GDDP has increased by 7.2 percent CAGR, and that of roadways and other transport has increased by 9.1 percent CAGR over the past 5 years¹⁰⁷. NH 2 and NH 6 pass through the district. NH2 connects Delhi and Kolkata, while NH 6 connects Hazira (Gujarat) and Kolkata. Kolkata's nearest railway terminal is the Howrah station, which is the largest, oldest and second busiest railway station in India. There are two junctions in Kolkata, viz Sealdah and Chitpur, but Howrah handles the major long-distance rail traffic of the district. This provides good opportunity for people to migrate and also carry on trade across the country. The railway engineering industries have also contributed to this sector. Kolkata international and national airport attracts significant passenger and cargo traffic across the year. Kolkata Port is a major port handling significant portion of state sea transport along with Haldia in the state.

¹⁰⁴Directorate of Healthcare, Govt of West Bengal

¹⁰⁵<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

¹⁰⁶<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

¹⁰⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

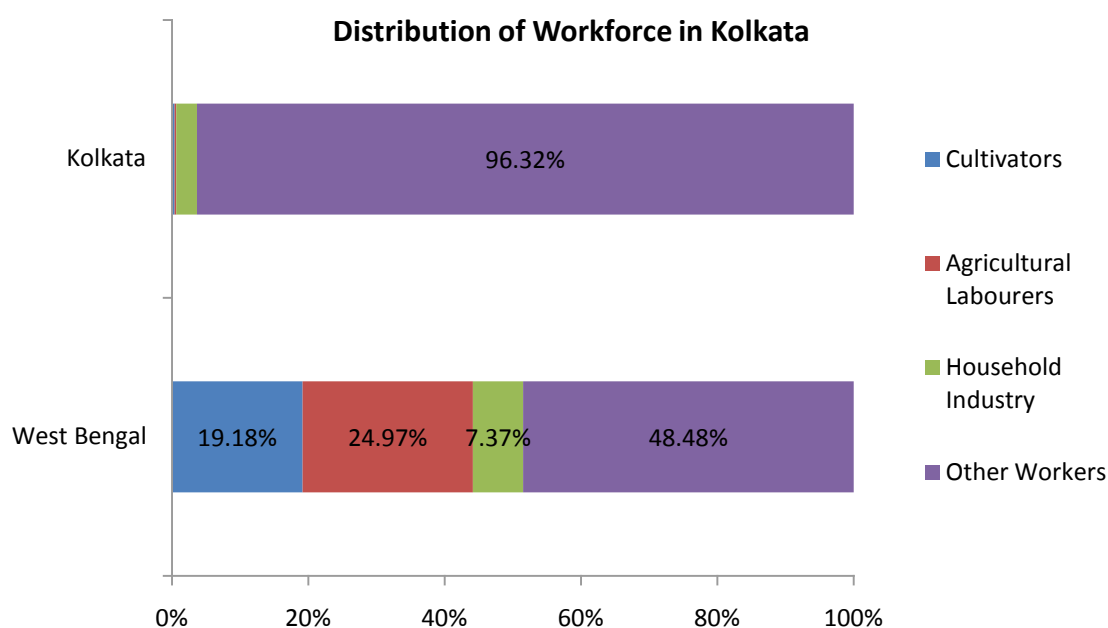
16.1.3 Workforce Distribution in the district

16.1.3.1 Current Employment Scenario in Kolkata

Worker participation rate in the district (37.56 percent), is in line with the state average of 36.77 percent. Being an entirely urban district, Kolkata has significant lower marginal workers, indicating the permanent and organized nature of employment. However being a district with 4.91 percent of total state population, Kolkata also accounts for 5.63 percent of total state's Non-Working population. High density of Non-Working population, especially in the women category, has to be addressed through adequate training for self employment generation.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Kolkata (Only Urban)	37.56%	2.05%	28,55,142	10,48,492	18,06,650
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Workforce distribution patterns in the district indicate that the district is predominantly a services driven employment market. 'Other Workers' mostly involving tertiary activities contributed to a large chunk of overall occupations. Kolkata district being an entirely urban region has significantly different workforce distribution in comparison to that of the overall state.



Historically Kolkata is a destination for migration from districts within state as well as neighbouring states like Bihar, Uttar Pradesh, Jharkhand. Majority of migrant workforce engage in un-organized activities ranging from food vendors, hawkers, waiters, taxi-drivers, construction workers, rickshaw-drivers, nursemaids, housemaids, cooks in restaurants and even street side barbers. However over the recent years in-ward migration into Kolkata city has been declining as evident

from demographic trends and shrinking slum population. Paucity in economic opportunities, expansion of infrastructure in suburban pockets of Howrah, North & South 24 Parganas are some key reasons for these trends.

16.1.3.2 Estimation of Supply of Manpower in Kolkata

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. . Although Kolkata is a commercial hub, net population in the district is estimated to drop during 2012-22 – due to movement of people to suburbs resulting in lower incremental supply. Though the supply estimates are low, daily migration from suburbs is expected to ensure adequate manpower supply.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Kolkata	4433206	2965815	1694799	1404942	612874
WSest Bengal	99530929	66586192	34291889	31828200	18481360

16.1.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Kolkata has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Kolkata. According to the estimates, in the next 5 years, Kolkata is expected to witness an incremental manpower requirement of over 5.59 lakhs ¹⁰⁸, which is expected to normalize to 5.29 lakhs ¹⁰⁹ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

¹⁰⁸ KPMG Estimates on Incremental Manpower Requirement

¹⁰⁹ KPMG Estimates on Incremental Manpower Requirement

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Animal Husbandry	322	NA	NA	322	268	NA	NA	268	590
Agro based & Food Processing	1918	1534	384	3836	1570	1256	314	3140	6976
Jute & Textiles	3676	2941	735	7352	3009	2408	602	6019	13371
Auto/Engineering	3196	2557	639	6393	2617	2093	523	5234	11627
Electrical & Electronics	1470	1176	294	2941	1204	963	241	2408	5349
Drugs, Chemical & Petrochemicals	1279	1023	256	2557	1047	837	209	2093	4650
Rubber & Plastic Products	1598	1279	320	3196	1308	1047	262	2617	5813
Gems & Jewellery	2397	1918	479	4795	1963	1570	393	3925	8720
MSME (Manufacturing /Assembling/Processing)	39500	23042	3292	65834	33015	19259	2751	55025	120859
Repairing & Maintenance	11076	6461	923	18461	9230	5384	769	15384	33845
Construction	77935	11808	4723	94467	59779	15941	3985	79705	174172
IT&ITES	NA	7740	28260	36000	NA	5160	18840	24000	60000
Healthcare	54506	6670	12124	73300	98821	12094	21981	132896	206196
Transportations and Logistics	100466	14525	6052	121044	83259	12037	5016	100312	221356
Trade, Retail	39550	5718	2383	47650	28476	4117	1715	34308	81958
Hospitality	7259	2593	519	10371	7046	2516	503	10066	20437
Communication	19083	7975	1424	28482	15814	6609	1180	23603	52085
Banking and Financial Services	23629	2780	1390	27799	21938	2581	1290	25809	53608
Education and Training	705	556	2959	4219	470	371	1972	2813	7032

16.1.4 Human Resource Development Scenario in the District

16.1.4.1 Current State of Workforce Development

Being the state capital, Kolkata has emerged as an educational hub with the presence of a number of reputed educational institutes in its vicinity, such as Indian Institute of Management, Calcutta; Indian Institute of Science Education & Research, Kolkata; Bose Institute, Kolkata and Center for Studies in Social Sciences, Kolkata. These institutions offer higher education and technical training across a variety of disciplines. The region also has a number of centers of medical learning, which includes institutions like the Medical College, Kolkata; NRS Medical College, Dr. R Ahmed Dental College, Gurunanak Institute of Dental College, D. N. De Homoeopathic Medical College & Hospital and National Institute of Homoeopathy amongst others.

Kolkata has the highest college density among the districts of West Bengal. Comparison of higher education infrastructure in Kolkata with West Bengal is presented in the table.

Category of Colleges	Kolkata	West Bengal
General Degree	66	452
BEd	15	129
Physical Education	3	20
Law	4	26
Music	1	2
Art	1	4
Engineering & Technology	18	85
Business Management& Hotel Management	5	42
Total	113	760
Density (Colleges per Thousand Population)	2.52	0.83

District also accounts for significantly high proportion of vocational education capacity in West Bengal. Kolkata has 9 polytechnic institutes, ranking second in the state after Burdwan. Along with these Polytechnic institutes, the district houses 15 ITI s/ ITCs, with highest number of private ITI s present in the district. Details of vocational education infrastructure in Kolkata is presented in the table.

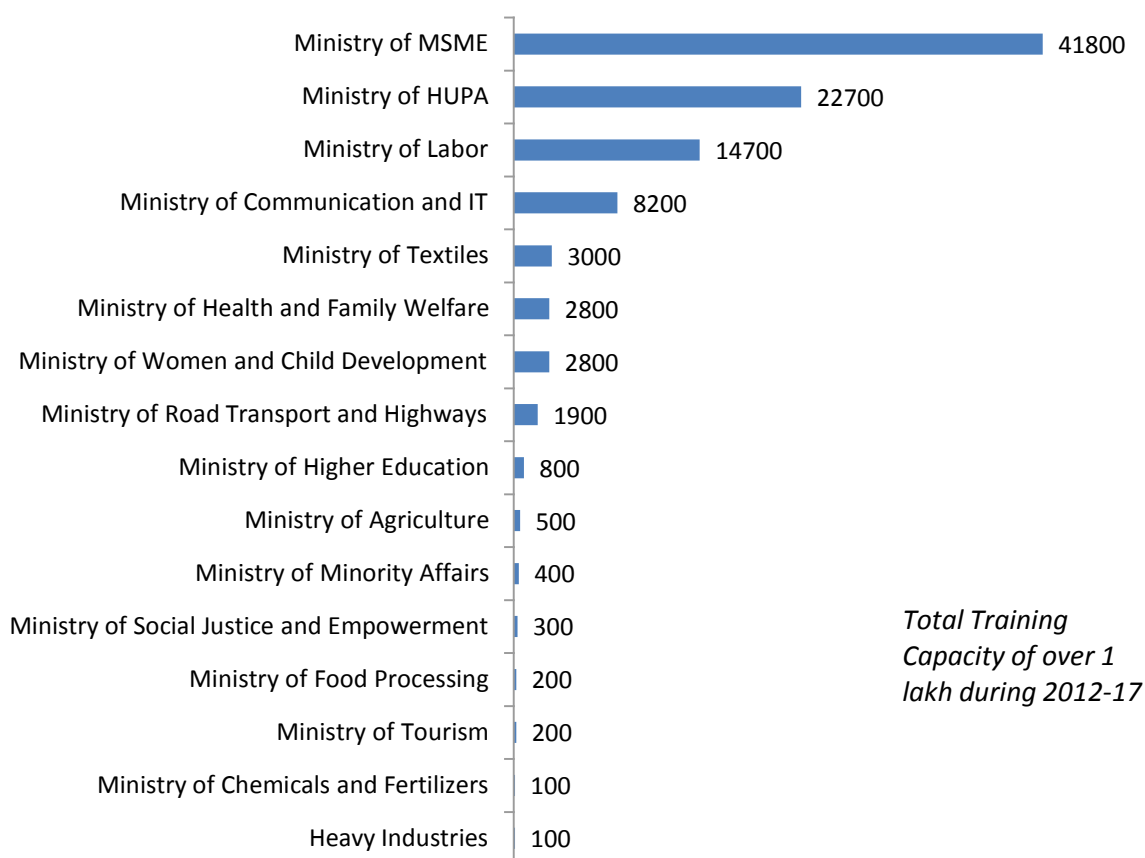
ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Pivate ITI	Total	Govt ITI	Govt ITC	Pivate ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Kolkata	4		11	15	2324		596	2920	0.65

Currently, Kolkata has 11 employment exchanges, the highest number amongst all the districts in West Bengal. While registrations in employment exchanges in the district are high owing to the dense population of educational institutions in the capital region, placements through employment exchanges are significantly low with minimal private sector employment¹¹⁰.

16.1.4.2 Incremental Training Capacity through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, over 1 lakh people in total can be trained incrementally during the five year period of 2012-17. Ministry of MSME, Ministry of Labour, Ministry of HUPA and Ministry of Communication & IT, are expected to contribute to a significant share of the training. Manpower training targets are more focused on meeting the industrial and services sectors - with significant opportunity for private training providers to explore scheme based training. Also, being a predominantly urban district accounting for significant share of state urban population, livelihood enhancement targeting urban BPL families funded by Ministry of HUPA under SJSRY, is also an area of opportunity for private training providers.

Potential Training Capacity in Kolkata during 2012-17



16.1.5 District Specific Recommendations

Kolkata, being an industrially advanced district with significant commercial activity has significant opportunities for skill development. There is sizeable opportunity in direct training of manpower to the extent of 1.11 lakhs over the next five years across skill levels

¹¹⁰ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- High employment potential in services sectors – **Transportation, Retail, Healthcare, Banking & Financial services and Construction.**
- **Transportation and Logistics** to witness significant demand of skilled and semi skilled manpower, given the strategic positioning of the district along national highways
- Growth in commercial and industrial development in Kolkata has spurred indirect employment demand in certain unorganized sectors like **security services and facilities management**
- Among high employment growth manufacturing areas, **Jute, Auto/Engineering** demand high level of skilling
- Skill requirements for **Gems and Jewellery** specific to the district
- Foundry & Metal Processing, Zari works and Textile are among the key MSME segments
- Sustainable growth of industrial clusters in the district would require multi faced skill development for the workers including **sales and marketing**
- Existing focus on training for informal sector by private skill training providers is low
- Public sector spending on skill training predominantly focusing on MSME, livelihood sectors.
- Decreasing human resource potential in the district
- Kolkata is viewed as a potential destination for sourcing of skilled youth from across West Bengal.
- High density of higher and vocational education institutes

Considering these factors, the proposed action plan for stakeholders in skill development in Kolkata district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> • Focus on increasing participation from national/regional private skill training providers with focus on the following sectors <ul style="list-style-type: none"> ○ Transportation & Logistics ○ Healthcare ○ Construction ○ Gems & Jewellery ○ Jute & Textiles
District Administration Indore	<ul style="list-style-type: none"> • Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Construction Sector ○ Healthcare • Align training programs for upskilling workers in MSME units of <ul style="list-style-type: none"> ○ Foundry & Metal Processing ○ Zari works ○ Textile ○ Agro Processing
Private Skill Training Providers	<ul style="list-style-type: none"> • Focus on placement driven training for youth from industrially less advanced districts of Murshidabad, Nadia, Bankura in sectors like <ul style="list-style-type: none"> ○ Construction

	<ul style="list-style-type: none"> ○ Transportation and Logistics ○ Retail ○ Hospitality ○ Security Services ● Establish cluster based skill training initiatives in PPP mode in the following industrial clusters, to ensure proximity to market absorption of trained talent <ul style="list-style-type: none"> ○ Gems & Jewellery ○ Retail
Corporate	<ul style="list-style-type: none"> ● Provide training for skills in those sector where the requirement for absorption within the corporate is higher such as <ul style="list-style-type: none"> ○ IT/ITES ○ Construction ○ Retail ● Initiate and support modular employability skill training in collaboration with private players/Government ● Create placement linkage opportunities in training institutions

16.2 Skill Gap Assessment of Bankura District

16.2.1 Social Profile

16.2.1.1 Demographics

Bankura is a predominantly rural district with 35.96 lakhs population as per 2011 Census. As high as 91.64 percent of the total district population lives in rural areas¹¹¹. The district population is distributed sparsely, relatively speaking, over its vast area with a density of 523 persons per sq.km¹¹² in comparison to state average of 1029¹¹³ persons per sq.km. While the adult gender ratio of district has increased from 952 females per 1000 males¹¹⁴ in 2001 to 954 females per 1000 males¹¹⁵ in 2011 there has been a decrease in the child (0-6 age group) gender ratio from 953 females per 1000 males in 2001 to 943 females per 1000 males in 2011¹¹⁶. The district has significant reserved categories population comprising 36.93¹¹⁷ percent of total population.

16.2.1.2 Literacy

The district has a literacy rate of 70.95 percent, lower than the state average of 77.08 percent¹¹⁸. Further, district has significant gender disparities in education attainment. Female literacy rate in the district is very low at 60.44 percent¹¹⁹. District has around 4966¹²⁰ K12 schools with a 96.15 percent¹²¹ share of Government schools. However, proportion of out-of-school children is lower than the state average, both at primary and upper primary levels, indicating the effective implementation of mass education programs towards improving child literacy. Comparison of district school education statistics with overall state details is given in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Bankura	289934	1201	0.41%	335172	4299	1.28%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.2.2 District Economy

Bankura is predominately an agrarian economy with significant contribution from un-organized services activities towards district income. District contribution to overall state economy is low on a per capita basis as evident from a lower Per

¹¹¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

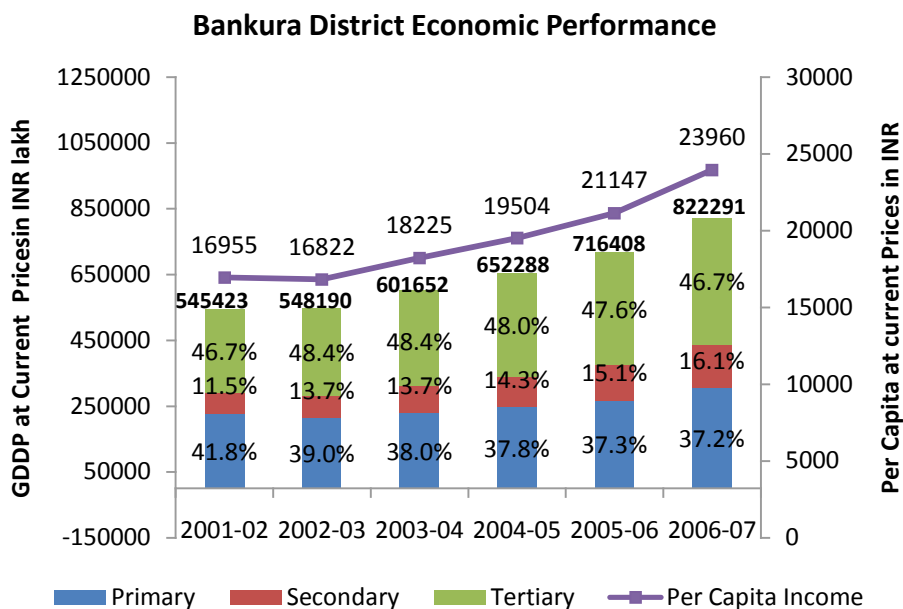
¹¹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹¹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹²⁰<http://www.dise.in/drc.htm>

¹²¹<http://www.dise.in/drc.htm>

Capita Income of INR 23,960¹²² in comparison to state average of INR 31,003¹²³ during 2006-07 (At current prices). While the contribution of services sector is highest among sub-sectors, dependency on agriculture is high in terms of number of people engaged.



16.2.2.1 Agriculture and allied sectors

Bankura is predominantly an agrarian district with 38.39 percent¹²⁴ of total geographical area under cultivation. Large sections of Forest and barren land not available for cultivation, is a key reason for lower proportion of cultivable land in the district. The district is situated in the Gangetic region with low rainfall intensity, and is dependent on other sources of irrigation like canals, ground water from tube-wells and diesel pumps. As per 2011 estimates, around 26,260 ha¹²⁵ of land is irrigated through these alternative channels. With 48.31 percent of net sown area in the district exposed for multiple cropping¹²⁶, there is a need to promote minor irrigation techniques to sustain agricultural growth in Bankura. District land usage pattern is presented in the chart¹²⁷.

¹²²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹²³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

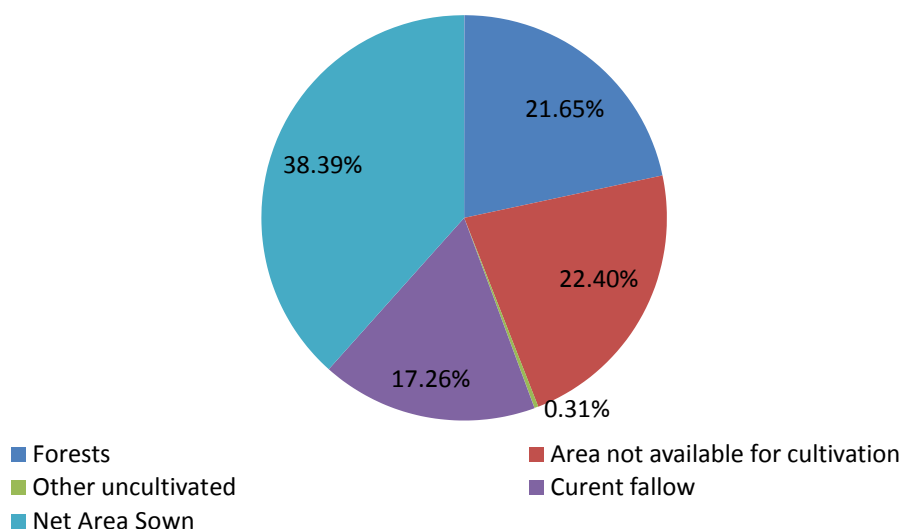
¹²⁴ Directorate of Agriculture, Govt of West Bengal

¹²⁵ Directorate of Agriculture, Govt of West Bengal

¹²⁶ Directorate of Agriculture, Govt of West Bengal

¹²⁷ Directorate of Agriculture, Govt of West Bengal

Bankura - Land use pattern



Rice and wheat are key agricultural crops in the district with 73.34 percent of net sown area under rice cultivation¹²⁸. Wheat production of the district has varying output owing to the high dependency on rain due to lack of adequate irrigation facilities in the wheat growing regions. Potato, mustard, sesamum, rapeseed and guava are other prominent crops in Bankura.

Low productivity due to limited use of hybrid varieties, need for post harvest handling training and mono cropping methods in Bankura are some of the issues identified with regard to promotion of horticulture.

The district has a high forest cover of 21.65 percent in comparison to state average of 13.52 percent, resulting in considerable growth of livelihood activities based on forest produce¹²⁹. Lac and Tassar host tree plantation in forest areas in blocks of Chhatna, Saltora, Mejhia, Indpur, G. Ghati, Khatra, Ranibandh and Hirbandh have potential employment generation opportunities.¹³⁰ Collection of medicinal plants and herbs is another key forest based activity with opportunities for exporting the produce within and outside West Bengal¹³¹.

Pisciculture is a prominent allied activity in the district with over 25,000 ha of land available for pisciculture. As high as 88% of available land was brought under effective pisciculture usage resulting in direct employment for 1,14,578. Onda, Chhatna and Kotulpur are blocks with the significant pisci culture activities¹³².

16.2.2.2 Industry

Industrial growth in Bankura is primarily attributed to mineral reserves of coal in Mejhia, Borjora and China Clay in Kharidungri, Bagjabra regions of the district. Ferro Alloys, Refractories, Polymer and Plastics along with Food Processing are key industrial sectors in Bankura. Biax Ltd, Kunststoff Polymers Ltd, Nilkamal Plastics Ltd, Sri Vasavi Steel Industries Ltd, Kero Rajendra Monolithics Ltd, Bankura Agro Products Pvt Ltd, are prominent industries operating in the district. As per 2011 provisoinal data, there are 243 registered factories in the district, employing around 12,356 on a daily basis.

¹²⁸ Directorate of Agriculture, Govt of West Bengal

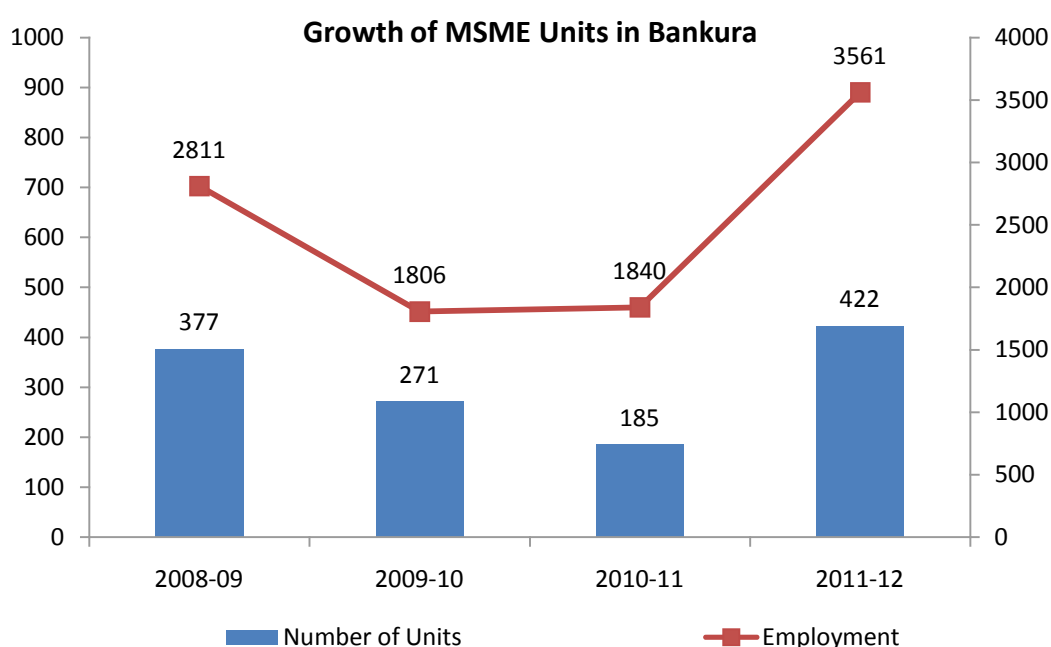
¹²⁹ Directorate of Agriculture, Govt of West Bengal

¹³⁰ KPMG Analysis

¹³¹ KPMG Analysis

¹³² <http://wbagrmarketingboard.gov.in/>

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 1,255 units generating additional employment of over 10 thousand during the period. Large number of ceramic and Terracotta product units especially in MSME category have been established in the region, owing to these mineral advantages. Pottery work of Panchmura, Baluchari silk sarees of Bishnupur, Dokra work of Bikna, Patrasayer and Gopalpur, stone craft of Susunia, are unique to the district. There are large pockets in the district where the people have endogenous skills in manufacturing fishing hook, fishing net, bamboo craft and manufacturing of babuirope. Employment growth trends in MSME segment are presented in the chart.



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Bankura district.

Existing Clusters	Clusters Identified for Promotion
(i) Brass & Bell Metal, (ii) Fishing Hook, (iii) Roofing tiles, (iv) Dokra (v) Terracotta products	Roofing Tiles

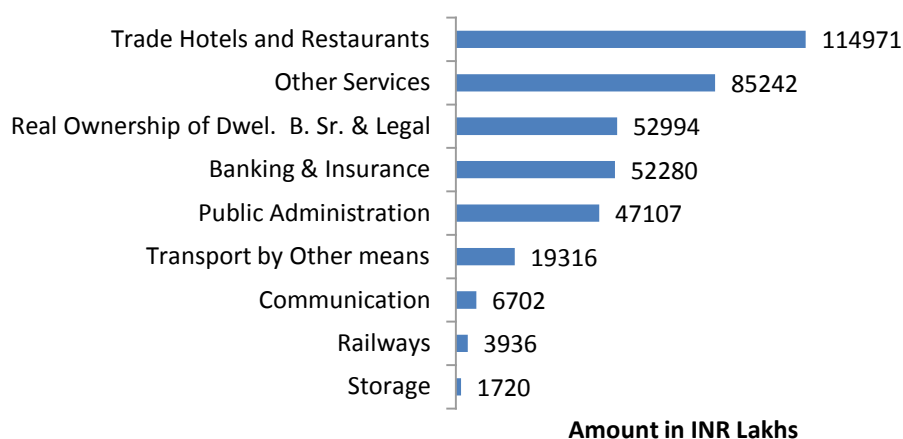
16.2.2.3 Services Sector

Service sector has accounted for significant share (46.7 percent¹³³) of GDDP during the year 2006-07. Sector witnesses a growth of 8.6 percent¹³⁴ CAGR in the period between 2001-02 and 2006-07. Trade and hospitality, legal advice and banking are major sub-sectors in services economy.

¹³³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹³⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Contribution of Services Sector to GDP (2006-07)



Trade and hospitality industry of Bankura has registered a cumulative growth of 9.6 percent¹³⁵ in the period between 2001-02 and 2006-07.

Sidheswar temples, Bishnupur temples, Susunia hills, Biharinath hills, Joyrambathi, Mukutmonipur Dam and Jhilimili forests, Susunia Hills are key tourist destination in the district. Susunia Hills are famous for trekking, hiking and rock climbing. Jaipur forest being the only forest in the plains of Southern Bengal has significant tourist visits from neighbouring districts.

Bankura houses some of the old hospitals in West Bengal like Gouripur leprosy hospital, Asia's largest leprosy hospital and Bankura Sammilani Medical College. Penetration of healthcare facilities in Bankura at 922 people served per bed is marginally poorer than with state average of 851 people per bed¹³⁶. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Bankura											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	947	0	0	2	400	0	0	1	550	18	640
Block primary health centre		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds

¹³⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹³⁶<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

4	70	69	512	3	35	0	0	2	50	46	696
Total no of hospitals and beds		149					3900				

Contribution of railways to GDDP has grown at 8.2 percent CAGR, and that of roadways and other transport, has witnessed a growth of 8.9 percent CAGR over during the period between 2001-02 and 2006-07¹³⁷. The district has a stretch of around 92 km of national highway, and 96 km of state highways connecting the neighbouring districts¹³⁸. National highway 60 and state highway 9¹³⁹ pass through the district. Bankura has a total of 70 km of rail route coverage with direct connectivity to Kolkata.

Bankura has considerably high penetration of banking and financial services measured as a percentage of GDDP, at 6.36 percent, in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in Bankura has grown at 3.61 percent CAGR between 2006 and 2011¹⁴⁰. Banking services in the district are predominantly limited to nationalized banks. Credit given by the banks has grown at a cumulative rate of 11.72 percent and bank-deposits had a growth of 24.82 percent CAGR in the past five years indicate limited growth of advances, and limited impact of banking on commercial development of the district¹⁴¹. However, high penetration of banking and financial services would be driven by significant NBFC growth over the next decade.

16.2.3 Workforce Distribution in the district

16.2.3.1 Current Employment Scenario in Bankura

Work participation rate in the district (44.71 percent) is higher than the state average of 36.77 percent. Agrarian nature of the economy, with high proportion of marginal workers in agriculture & allied activities, is the key reason for high participation rates. While the participation rates are high, seasonal nature of work would mean under-employment for a significant portion of workforce.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Bankura-Rural	45.58%	16.04%	16,09,502	6,50,950	9,58,552
Bankura-Urban	33.72%	3.7%	1,55,921	56,616	99,305
Bankura	44.71%	15.13%	17,65,423	7,07,566	10,57,857
West Bengal	36.77%	8.05%	5,0694,507	1,90,77,941	3,16,16,566

¹³⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

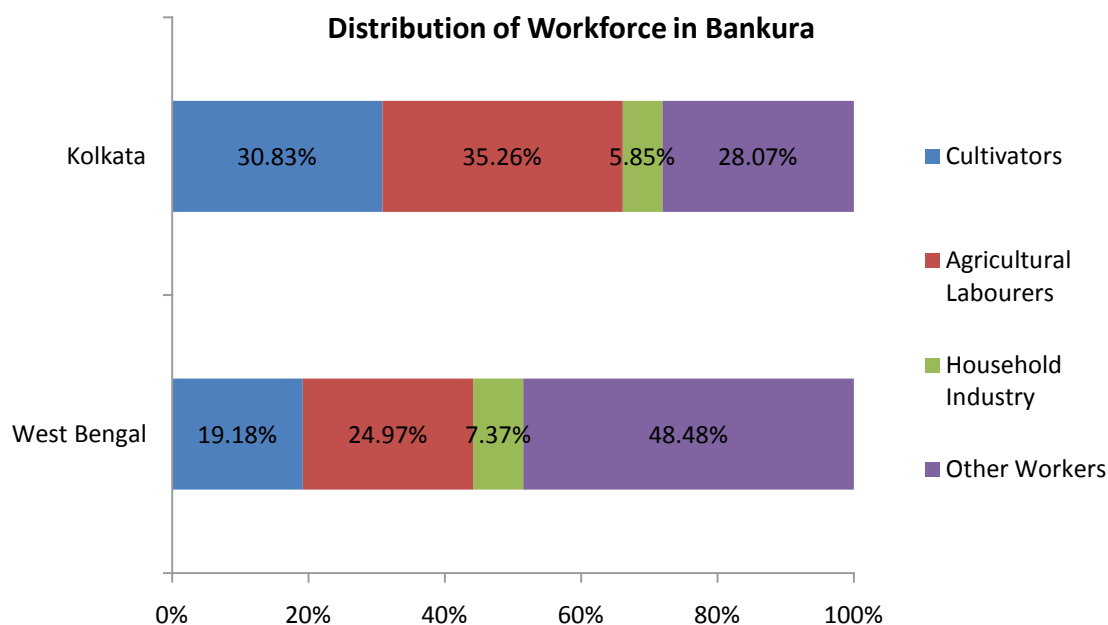
¹³⁸http://cgwb.gov.in/District_Profile/MP/Bankura.pdf

¹³⁹http://cgwb.gov.in/District_Profile/MP/Bankura.pdf

¹⁴⁰<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

¹⁴¹<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

Workforce distribution patterns in the district indicate high dependency on agriculture and allied activities in Bankura. As high as 60 percent of total working population depend on agriculture, with a major share of marginal farmers. Forest Produce related activities are another key source of livelihood in tribal communities. Women in certain river- adjoining villages, are involved in stone breaking and selling to the construction sector.



Migration patterns have started to emerge from Bankura over the years primarily due to seasonal nature of agricultural work, declining in soil fertility and low rainfall. Classified under drought prone areas, district population migrates to Burdwan and Hooghly districts during the off season. Certain villages in the district witness as high as 50 percent of adult migration. Creation of self employment opportunities through adequate training, has to be taken up, supporting MNREGA initiatives in Bankura.

16.2.3.2 Estimation of Supply of Manpower in Bankura

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Bankura is a moderate human resource growth district adding 7.42 lakh to working age group during 2012-22. Limited employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training that can enable the district to supply skilled manpower to other districts/states.

Region	Estimated Population (2022)	Working Age Population(2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Bankura	3883736	2598220	1762570	1461122	742520
West Bengal	99530929	66586192	34291889	31828200	18481360

16.2.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Bankura has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Bankura. According to the estimates, in the next 5 years, Bankura is expected to witness an incremental manpower requirement of over 1.31 lakhs ¹⁴² which is expected to normalize to 1.18 lakhs ¹⁴³ during 2017-22. Sector wise skill level requirements during 2012-22, broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	3504	NA	NA	3504	3504	NA	NA	3504	7008
Animal Husbandry	16583	NA	NA	16583	13819	NA	NA	13819	30402
Pisciculture	1342	NA	NA	1342	767	NA	NA	767	2109
Iron & Steel	3021	2417	604	6042	2473	1978	495	4946	10988
Rubber & Plastic Products	1295	1036	259	2589	1060	848	212	2120	4709
MSME (Manufacturing /Assembling/Processing)	4033	2352	336	6721	3371	1966	281	5618	12339
Repairing & Maintenance	1131	660	94	1885	942	550	79	1571	3456
Construction	25267	3828	1531	30626	19380	5168	1292	25840	56466
IT&ITES	NA	1548	5652	7200	NA	1032	3768	4800	12000
Healthcare	662	81	147	890	9490	1161	2111	12763	13653
Transportations and Logistics	6147	889	370	7406	5094	737	307	6138	13544
Retail	25180	3640	1517	30337	18130	2621	1092	21843	52180
Hospitality	4622	1651	330	6603	4486	1602	320	6409	13012
Communication	1332	557	99	1988	1104	461	82	1647	3635
Banking and Financial	3791	446	223	4460	3519	414	207	4140	8600

¹⁴² KPMG Estimates on Incremental Manpower Requirement

¹⁴³ KPMG Estimates on Incremental Manpower Requirement

Services									
Education and Training	699	551	2062	3312	466	368	1374	2208	5520

16.2.4 Human Resource Development Scenario in the District

16.2.4.1 Current State of Workforce Development

Bankura has limited number of higher education institutes resulting in poor access to higher education facilities within the district. The district has 21 general degree colleges in the district, with an average college density marginally above the state average. Bankura Christian College and Bankura Unnayini Institute of Engineering are among the technical institutes established in Bankura. Bankura Sammilani Medical College is the only medical institution in the district. Sidho Kanho Birsha University set up in 2010 offers courses in humanities, engineering, science and commerce. Comparison of higher education infrastructure in Bankura with West Bengal is presented in the table.

Category of College	West Bengal	Bankura
General Degree	452	21
BEd	129	7
Physical Education	20	2
Law	26	1
Music	2	–
Art	4	–
Engineering & Technology	85	2
Business Management& Hotel Management	42	–
Total	760	33
Density(Colleges per Thousand Population)	0.83	0.92

The district has 2 polytechnic colleges: K.G. Engineering Institute and Bishnupur Public Institute of Engineering. Bankura is among the districts with least access to vocational education with four industrial training institutes accounting for a training capacity of 456. Details of vocational education infrastructure in Bankura is presented in the table.

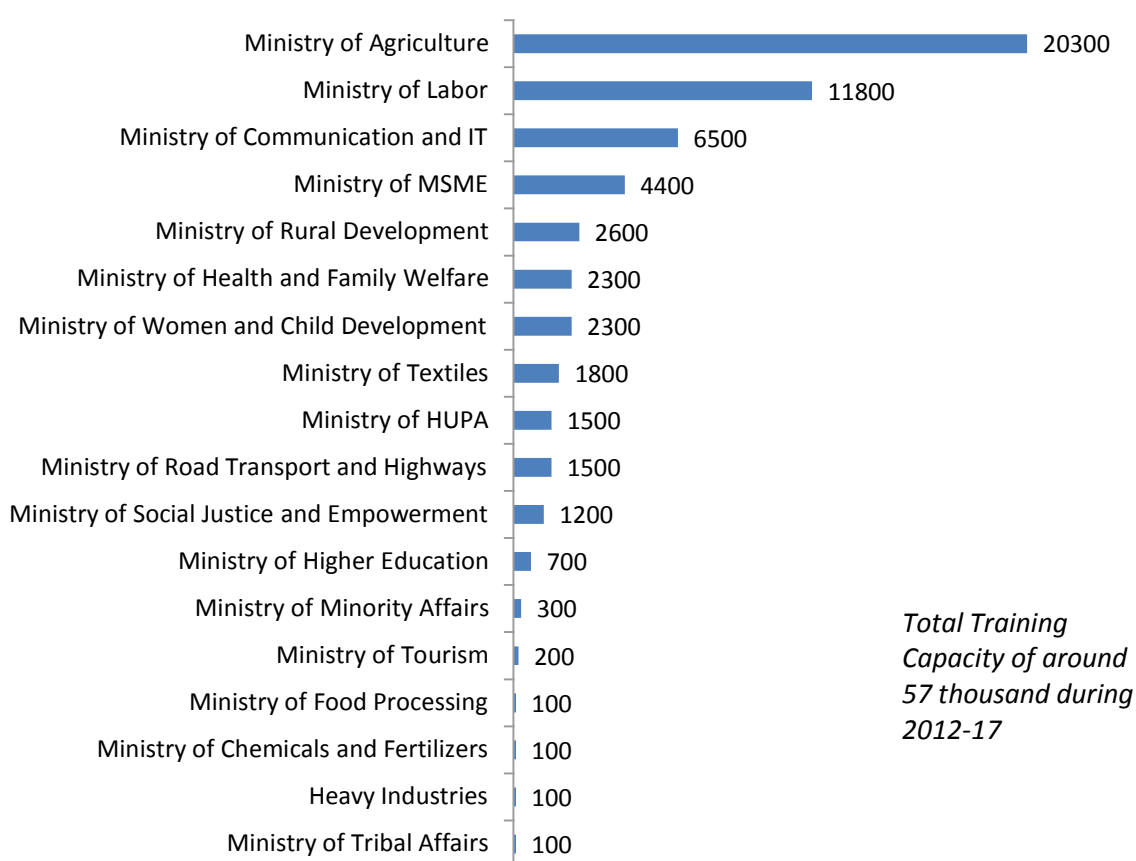
District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Bankura	3		1	4	412		44	456	0.04

Reflecting the low penetration of higher and vocational education institutes, there are only 3 employment exchanges in the district. While these exchanges have close to 3,00,000 live registrations, the placement percentages are poor¹⁴⁴.

16.2.4.2 Incremental Training Capacity through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 57 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Ministry of Labor are expected to contribute to a significant share of the training. Manpower training targets are more focused on improving livelihood and farming techniques in the district, with limited opportunities for private training providers.

Potential Training Capacity in Bankura during 2012-17



16.2.5 District Specific Recommendations

Bankura, being an agrarian economy with a moderately industrialized district due to availability of mineral reserves, has opportunities for skill development across primary and manufacturing sectors particularly MSME segment. There is sizeable opportunity in direct training of manpower to the extent of 1.31 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

¹⁴⁴ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

- High employment potential in services sectors – **Construction**
- **Animal Husbandry, Pisciculture and Forest Produce based livelihood activities** have significant training requirements
- Low productivity and limited irrigation facilities hampering agricultural output in the district
- Skill requirements for Iron & Steel, Rubber and Plastic industries emerging in the district
- Pottery work of Panchmura, Baluchari silk sarees of Bishnupur, Dokra work of Bikna, Patrasayer and Gopalpur, stone craft of Susunia are unique in the state.
- Large pockets in the district have endogenous skills in manufacturing fishing hook, fishing net, bamboo craft and manufacturing of babuirope.
- Low penetration of higher and vocational education.

Considering these factors, the proposed action plan for stakeholders in skill development in Bankura district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> • Focus on increasing participation from national/regional private skill training providers with focus on the following sectors <ul style="list-style-type: none"> ○ Iron & Steel ○ Rubber & Plastics
District Administration Indore	<ul style="list-style-type: none"> • Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Minor Irrigation ○ Advanced Pisciculture ○ Sales & Marketing for people involved in MSME and unorganized activities
Private Skill Training Providers	<ul style="list-style-type: none"> • Focus on placement driven training for youth in <ul style="list-style-type: none"> ○ Iron & Steel ○ Rubber & Plastics • Establish cluster based skill training initiatives in PPP mode in the following manufacturing clusters <ul style="list-style-type: none"> ○ Pottery ○ Silk Saree Making
Corporate	<ul style="list-style-type: none"> • Provide training for skills in those sector where the requirement for absorption within the corporate is higher such as <ul style="list-style-type: none"> ○ Iron & Steel ○ Rubber & Plastics • Initiate and support modular employability skill training in collaboration with private players/Government • To create placement linkage opportunities in training institutions

16.3 Skill Gap Assessment of Birbhum District

16.3.1 Social Profile

16.3.1.1 Demographics

Birbhum has 35.02 lakhs as per 2011 Census with 87.2 percent share of that being rural population¹⁴⁵. Population density of the district standing at 771 persons per sq.km, is lower than state average of 1029¹⁴⁶ persons per sq.km. While the adult gender ratio has increased from 950 females per 1000 males in 2001 to 956 females per 1000 males in 2011, there has been a decrease in the child (0-6 age group) gender ratio from 964 females per 1000 males in 2001, to 952 females per 1000 males in 2011¹⁴⁷. Reserved categories population in the district is significant, occupying a share of 36.25¹⁴⁸ percent of total population.

16.3.1.2 Literacy

The district has a low literacy rate of 70.95 percent in comparison to state average of 77.08 percent¹⁴⁹. Further, gender disparity in education attainment levels is prominent with a low female literacy rate of 64.07 percent. Birbhum has around 3655¹⁵⁰ K12 schools with a 97.24 percent¹⁵¹ share of Government schools. Low private participation is attributed to low income levels of district population. Dropout ratio at both primary and upper primary levels, is a key concern for the district. Birbhum is among the districts with high proportion of school dropouts - highlighting a need to strengthen efforts towards mass education, especially in reserved communities. Comparison of district school education statistics with overall state details is presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Birbhum	273649	3280	1.20%	316347	11942	3.77%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.3.2 District Economy

Contribution of Birbhum to overall state economy is lower than the expected share on population pro-rata basis - as evident from lower Per Capita Income of INR 22,967 in comparison to state average of INR 31,003 in 2006-07 (At current prices). District economy has witnessed a lower cumulative growth rate of 9.77 percent during 2001-02 to 2006-07, as against state average of 11.65 percent¹⁵². While the contribution of services sector is highest among sub-sectors in the district, dependency on agriculture is high in terms of number of people engaged considering the low productivity in these activities. Sub-Sector wise GDDP trends in Birbhum are presented in the chart.

¹⁴⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁴⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁴⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

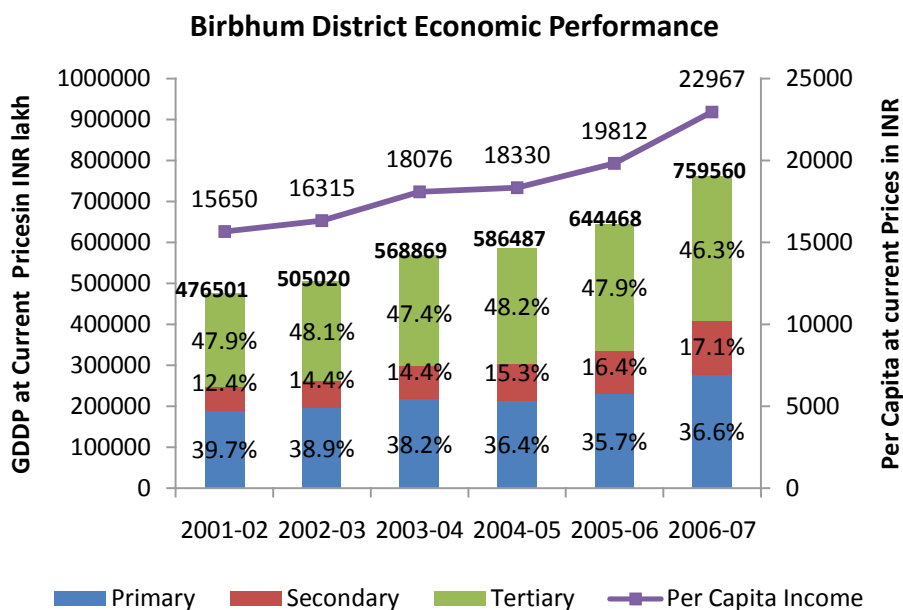
¹⁴⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁴⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁵⁰<http://www.dise.in/drc.htm>

¹⁵¹<http://www.dise.in/drc.htm>

¹⁵²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



16.3.2.1 Agriculture and allied sectors

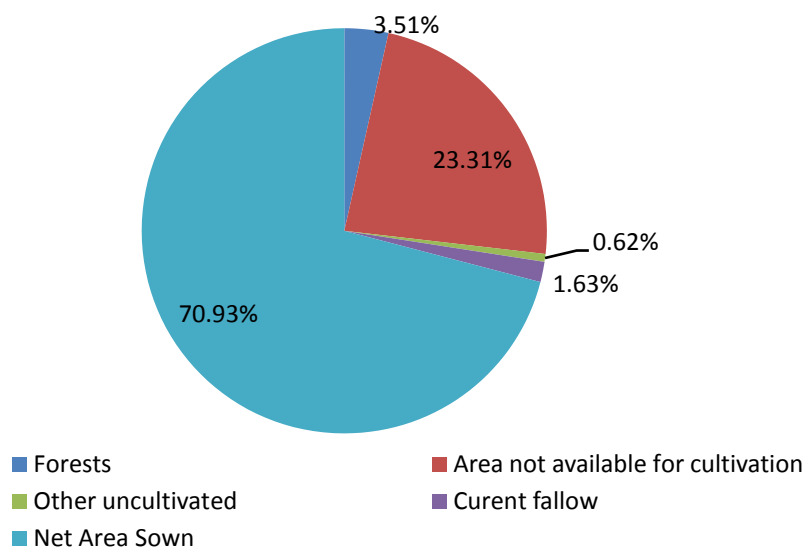
Agriculture and Allied activities is a key source of livelihood for majority of the population in Birbhum. Around 71 percent of total geographical area in the district is brought under cultivation. Situated in the Gangetic region, Birbhum witnesses limited rain fall affecting the agricultural activities in the district. However, around 77.5 percent of net sown area is exposed to multiple cropping¹⁵³ owing to availability of alternative irrigation facilities in the form of rivers and rivulets like the *Mor* and the *Ajay*. Being a dry district, climatic conditions of Birbhum are generally unfavorable for agriculture except in the monsoon months¹⁵⁴. Land usage distribution of Birbhum is presented in the chart¹⁵⁵.

¹⁵³ Directorate of Agriculture, Govt of West Bengal

¹⁵⁴ KPMG Analysis

¹⁵⁵ Directorate of Agriculture, Govt of West Bengal

Birbhum - Land use pattern



Rice, Wheat and Mustard are key agricultural crops in the district. Around 62.94 percent¹⁵⁶ of net sown area in the district, is under rice cultivation. Birbhum accounts for a significant share of overall state wheat production next to Nadia, Malda, Murshidabad and Uttar Dinajpur. Growing awareness levels about cash crops, particularly rapeseed and mustard, has resulted in declining cultivation of rice in the district over the years. Legumes, wheat, maize, potatoes and sugar cane are some of the other prominent crops in Birbhum.

The district is a key poultry hub in West Bengal. With a forest cover of 3.51 percent¹⁵⁷ of total geographical land, the district has limited opportunities for forest based livelihood. Even pisci culture has a very limited scope Birbhum.

Birbhum is among prominent Mulberry producing regions in the state. As per 2010-11 estimates, the district has produced 21,77,500 tons¹⁵⁸ of Mulberry.

16.3.2.2 Industry

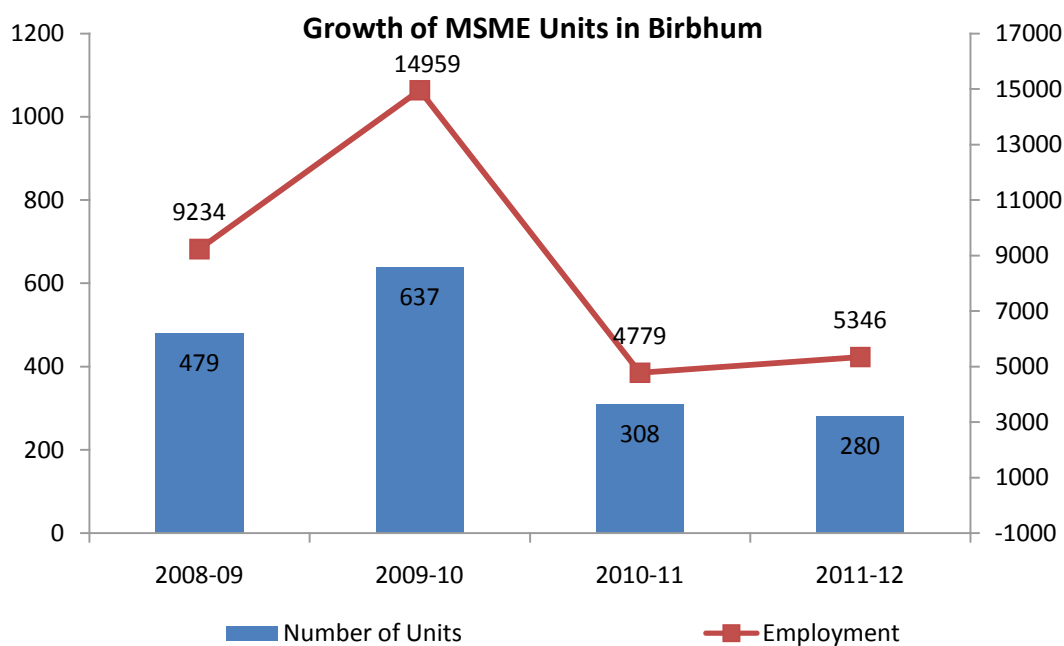
Birbhum is primarily an agrarian district with limited industrial growth. However, availability of red soil in the district has supported the growth of terecotta product and clay toy industry. Poultry based industries like Arambagh Hatcheries Ltd, are also present in the district. As per 2011 provisoinal data, there are 175 registered factories in the district employing around 7,217 on a daily basis.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 1,704 units generating additional employment of over 34,318 thousand during the period. Brass & Metal Processing units have significant potential in the district. Employment growth trends in MSME segment are presented in the chart.

¹⁵⁶ Directorate of Agriculture, Govt of West Bengal

¹⁵⁷ Directorate of Agriculture, Govt of West Bengal

¹⁵⁸ Directorate of Sericulture, Govt of West Bengal



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Birbhum district.

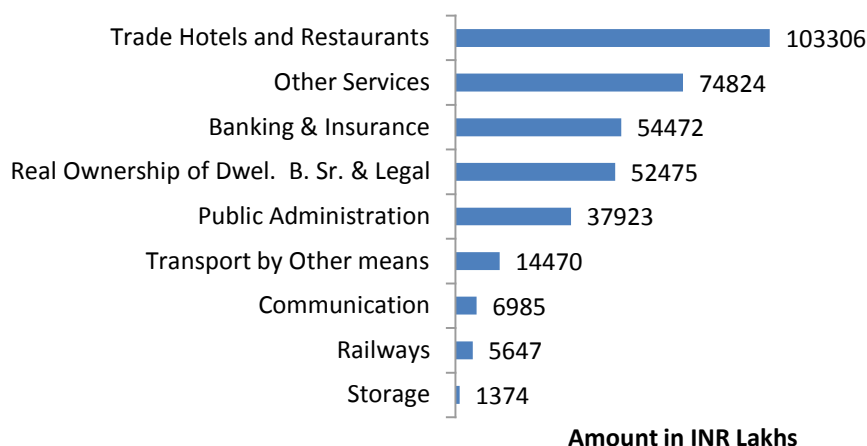
Existing Clusters	Clusters Identified for Promotion
(i) Fancy Leather Goods (ii) Brass & Bell metal (iii) Stitched silk saris (iv) Wood Carving	Brass & Bell Metal

16.3.2.3 Services Sector

Service sector contributed to 46.3 percent¹⁵⁹ of GDDP in the year 2006-07. Sector has grown at a cumulative rate of 9 percent in the period between 2001-02 and 2006-07. Trade and hospitality and banking and insurance are key services activities in Birbhum. Sub-sector wise contribution of services income is presented in the chart.

¹⁵⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Contribution of Services Sector to GDDP (2006-07)



Trade and hospitality industry of Birbhum has grown at a cumulative rate of 10 percent¹⁶⁰ in the period between 2001-02 and 2006-07.

Bolpur, Santiniketan and Tarapith are key tourist destination in Birbhum. Shantiniketan houses Vishwa Bharati- Nobel Laureate Rabindranath Tagore's vision of a world university. *Poush Mela*, an annual fair in the month of December, attracts a lot of tourists.

Penetration of healthcare facilities measured in terms of population served per bed, at 1,176 per bed is poor than state average of 851 per bed. District has 58 PHCs and 19 CHCs along with 484 Sub centers with limited private participation¹⁶¹. Considering limited availability of healthcare facilities within the district, the district is expected to witness significant Govt healthcare expenditure over the next decade. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Birbhum											
Medical College Hospital		District Hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	520	2	486	0	0	1	300	15	495
Block primary health centre		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds

¹⁶⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁶¹<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

4	105	58	456	3	94	0	0	2	52	44	469
Total no of hospitals and beds		130					2977				

Contribution of railways to GDDP has increased at a cumulative rate of 8.6 percent, and that of roadways and other transport has increased by 9.6 percent CAGR, over the past 5 years¹⁶². While there are no National Highways passing through the district, Panagarh-Morgram Highway connects key town in the district to to NH 34¹⁶³. Total length of rail track in the district is 201.32 km with Nalhati as a key junction¹⁶⁴. Connectivity to cities like Kolkata by rail and roadways has helped human resource movement from the district for education and employment.

Birbhum has high penetration of banking and financial services measured as a percentage of GDDP at 7.7 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of the district has grown by 4.1 percent CAGR between 2006 and 2011¹⁶⁵ with a predominant share of nationalized banks. Bank Credit has witnessed a growth of 17.75 percent CAGR and bank-deposits a 25.6 percent CAGR, in the past five years - indicating greater participation of financial institutions in overall growth of the district¹⁶⁶. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

16.3.3 Workforce Distribution in the district

16.3.3.1 Current Employment Scenario in Birbhum

Work participation rate in the district (37.42 percent) is in line with state average of 36.77 percent. Agriculture is the major source of livelihood. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Birbhum-Rural	37.88%	10.47%	17,12,554	6,42,915	10,69,639
Birbhum-Urban	32.52%	3.19%	1,74,371	63,844	1,10,527
Birbhum	37.42%	9.85%	18,86,925	7,06,759	11,80,166
West Bengal	36.77%	8.05%	5,0694,507	1,90,77,941	3,16,16,566

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Over 60 percent of total working population depends on agriculture, with a major share of Agricultural Laborers. Demand for alternative employment opportunities has been high in the district leading to outward migration.

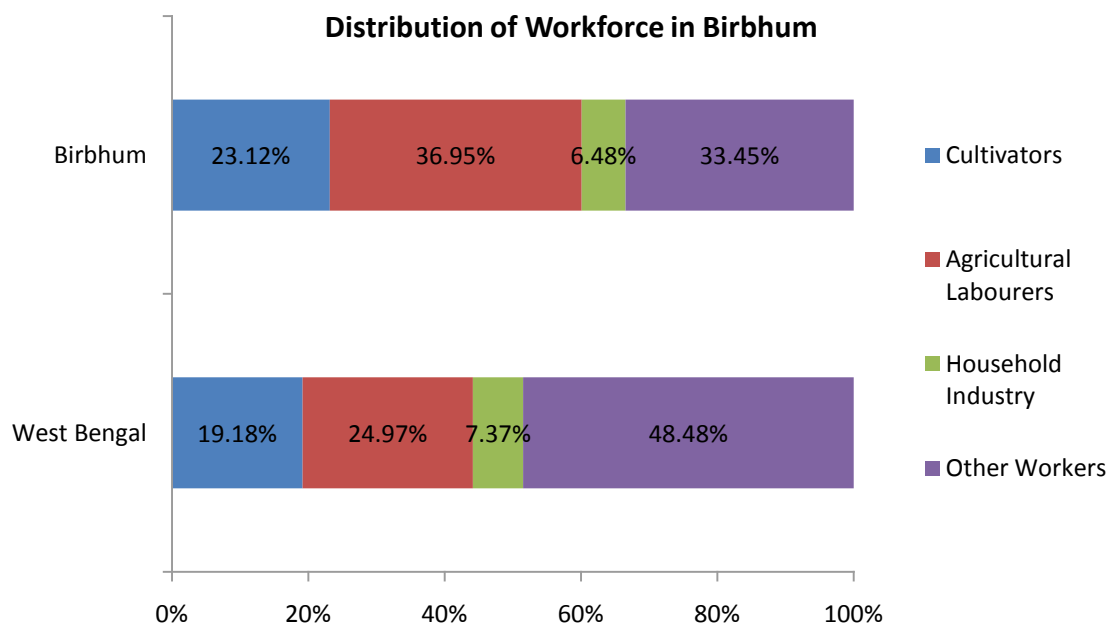
¹⁶²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁶³<http://birbhum.gov.in/>

¹⁶⁴<http://birbhum.gov.in/>

¹⁶⁵<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

¹⁶⁶<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>



Birbhum workforce migrates within the district, as well as to regions in other states. However, majority of the migrants are involved in menial activities - indicating that adequate training facilities can provide better employment opportunities either within or outside the district. Student migration is prominent in the district though mostly within district.

16.3.3.2 Estimation of Supply of Manpower in Birbhum

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Bankura is a moderate human resource growth district adding 7.9 lakh to working age group during 2012-22. Limited employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply (2012-22)
Birbhum	3860007	2582345	1461281	1211361	790735
West Bengal	99530929	66586192	34291889	31828200	18481360

16.3.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Birbhum has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Birbhum. According to the estimates, in the next 5 years, Birbhum is expected to witness an incremental manpower requirement of over 1.42 lakhs

¹⁶⁷ which is expected to normalize to 1.24 lakhs ¹⁶⁸ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	9369	NA	NA	9369	8234	NA	NA	8234	17603
Animal Husbandry	9982	NA	NA	9982	8318	NA	NA	8318	18300
Agro based & Food Processing	754	603	151	1507	617	494	123	1234	2741
MSME (Manufacturing /Assembling/Processing)	13815	8059	1151	23024	11546	6735	962	19244	42268
Repairing & Maintenance	3874	2260	323	6456	3228	1883	269	5380	11836
Construction	28500	4318	1727	34546	21861	5830	1457	29148	63694
Healthcare	4742	580	1055	6377	9611	1176	2138	12925	19302
Transportations and Logistics	5290	765	319	6374	4384	634	264	5282	11656
Retail	22625	3271	1363	27259	16290	2355	981	19627	46886
Hospitality	4153	1483	297	5933	4031	1440	288	5758	11691
Communication	1388	580	104	2072	1150	481	86	1717	3789
Banking and Financial Services	3950	465	232	4647	3667	431	216	4314	8961
Education and Training	1934	1526	1946	5406	1289	1017	1297	3604	9010

16.3.4 Human Resource Development in the District

16.3.4.1 Current State of Workforce Development

Birbhum has accessibility of higher and veducation facilities on par with state average. Visva Bharati University located in Santiniketan is a prominent educational institute in the district. Other key educational institutes in this region are Bengal Law College, ACC Jain College of Education and Kabi Nazrul College. District also has a center for homeopathic learning at the Birbhum Vivekananda Homeopathic Medical College. Comparison of higher education infrastructure in Birbhum with West Bengal is presented in the table.

¹⁶⁷ KPMG Estimates on Incremental Manpower Requirement

¹⁶⁸ KPMG Estimates on Incremental Manpower Requirement

Category of College	West Bengal	Birbhum
General Degree	452	18
BEd	129	6
Physical Education	20	1
Law	26	1
Music	2	–
Art	4	–
Engineering & Technology	85	2
Business Management& Hotel Management	42	1
Total	760	29
Density(Colleges per Thousand Population)	0.83	0.83

District has 4 polytechnic colleges; Sree Ramakrishna Shilpa Vidyapith, Basantika Institute of Engineering & Technology, Md.Bazar, Bengal Institute of Polytechnic, Santiniketan Institute of Polytechnic. Accesability to vocational education in Birbhum is marginally above the state average. The district has three ITI s/ ITCs/ Private ITI s with an overall capacity of 800. Details of vocational education infrastructure in Birbhum is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Birbhum	2		1	3	700		100	800	0.23

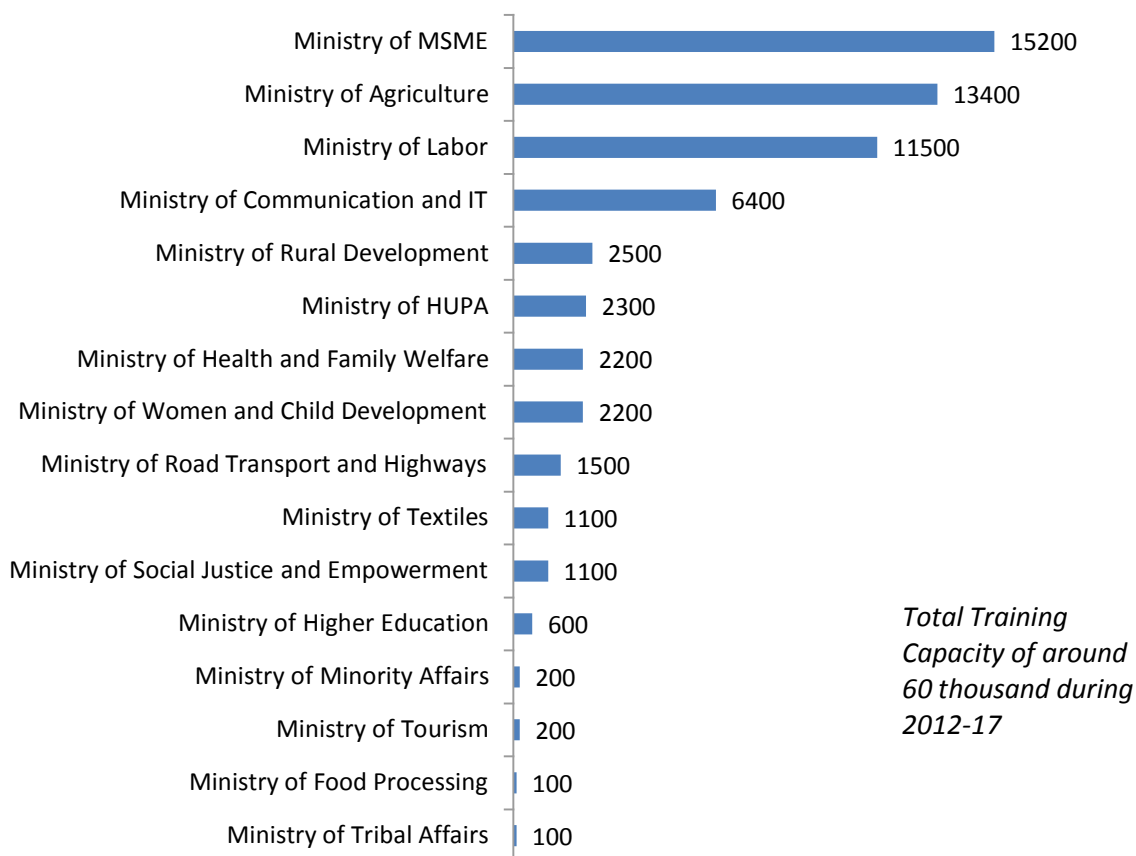
Birbhum has 3 employment exchanges with close to 2,50,000 people enrolled in the live register¹⁶⁹. Placement rates in employment exchanges were poor with minimal private job opportunities.

16.3.4.2 Incremental Training Capacity through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 60,000 people in total can be trained incrementally during the five year period of 2012-17. Ministry of MSME, Ministry of Labour and Ministry of Agriculture are expected to contribute to a significant share of the training. Manpower training targets are more focused on small medium industries, considering the low penetration of large scale industries in the district. Private training providers have significant up-skilling opportunities for MSME manpower in the district.

¹⁶⁹ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in Birbhum during 2012-17



16.3.5 District Specific Recommendations

Birbhum being a moderate economy with agriculture as the predominant livelihood activity, has sizeable opportunity in direct training of manpower to the extent of 1.42 lakhs over the next five years across primarily in MSME and unorganized services sectors.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- High employment potential in district MSME units- Brass & Metal, Agro Processing
- **Sericulture based livelihood activities** have significant training requirements
- Key Industrial sectors- Agro Based
- Low productivity and limited irrigation facilities hampering agricultural output in the district

Considering these factors, the proposed action plan for stakeholders in skill development in Birbhum district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers with focus on the following sectors <ul style="list-style-type: none"> ○ Agro Based
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Brass Metal , Agro based manufacturing units ○ Sericulture ○ Minor irrigation techniques
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus on placement driven training for youth in high growth sectors of state to get employed in industrial/ commercial clusters of <ul style="list-style-type: none"> ○ Iron & Steel ○ Engineering/Auto ○ IT/ITES ○ Retail
Corporate	<ul style="list-style-type: none"> ● Develop Birbhum as a sourcing hub for manpower intense sectors of West Bengal. ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.4 Skill Gap Assessment of Burdhan District

16.4.1 Social Profile

16.4.1.1 Demographics

Burdhan is a key district in West Bengal from the human resource growth perspective. As per 2011 Census, the district has a population of around 77.24 lakhs, making it the third most populous in the state. The district has a relatively high proportion of urban population, accounting for 39.87 percent of total population¹⁷⁰. Burdhan's population density at 1100 persons per sq.km is marginally higher than state average of 1029¹⁷¹ persons per sq.km. While the adult gender ratio in the district has increased from 922 females per 1000 males in 2001 to 943 females per 1000 males in 2011, there has been a decrease in the child (0-6 age group) gender ratio from 956 females per 1000 males in 2001, to 947 females per 1000 males in 2011¹⁷². Around 33.4¹⁷³ percent of total district population comprises of reserved categories, indicating the importance of meeting the needs of these sections in the overall district development.

16.4.1.2 Literacy

Burdhan has a literacy rate of 77.15 percent in line with state average is 77.08 percent¹⁷⁴. The district has about 6456¹⁷⁵ K12 schools with a 93.63 percent¹⁷⁶ of Government schools. Lower dropout rates in comparison to overall state average figures, indicate successful implementation of mass education programs over the recent years. Comparison of district school education statistics with overall state details are as shown in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Burdhan	628560	3909	0.62%	726635	1013	0.14%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.4.2 District Economy

Burdhan is a key economy in West Bengal accounting for the third highest share of overall state income. The district economy has witnessed a higher cumulative growth rate of 12.15 percent¹⁷⁷ during 2001-02 and 2006-07, in comparison to state average of 11.65 percent¹⁷⁸. While tertiary sector constitutes a major portion of district income, secondary and primary sectors are equally prominent. Secondary sector income has registered the highest growth of 22.7 percent¹⁷⁹ among sub-sectors during 2001-02 and 2006-07, owing to increasing industrial base in the district. Mining, categorized

¹⁷⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷⁵<http://www.dise.in/drc.htm>

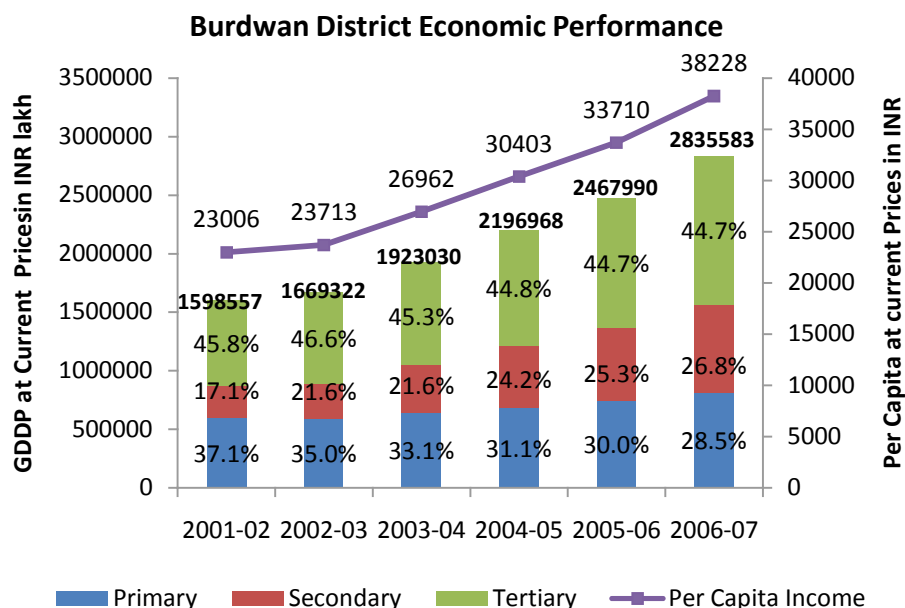
¹⁷⁶<http://www.dise.in/drc.htm>

¹⁷⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁷⁸<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁷⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

under primary sector, accounts for 43.68 percent¹⁸⁰ of primary sector income in 2006-07. Sub-Sector wise district income trends are presented in the chart.



16.4.2.1 Agriculture and allied sectors

Burdwan is a key agricultural district in West Bengal with the district accounting for second highest share of total state net sown area. District has around 64.74 percent¹⁸¹ of total geographical area under cultivation. Situated in the Gangetic region, the district witnesses low rainfall compared to other regions in the state. However, as high as 90.52 percent¹⁸² of net sown area in Burdwan is exposed to multiple cropping. Effective implementation of canal projects is a key reason for ensuring multiple cropping across significant area. Deep tube wells, shallow tube wells and river lift irrigation¹⁸³ are other major sources of irrigation in the district. District land usage distribution is as presented in the chart.

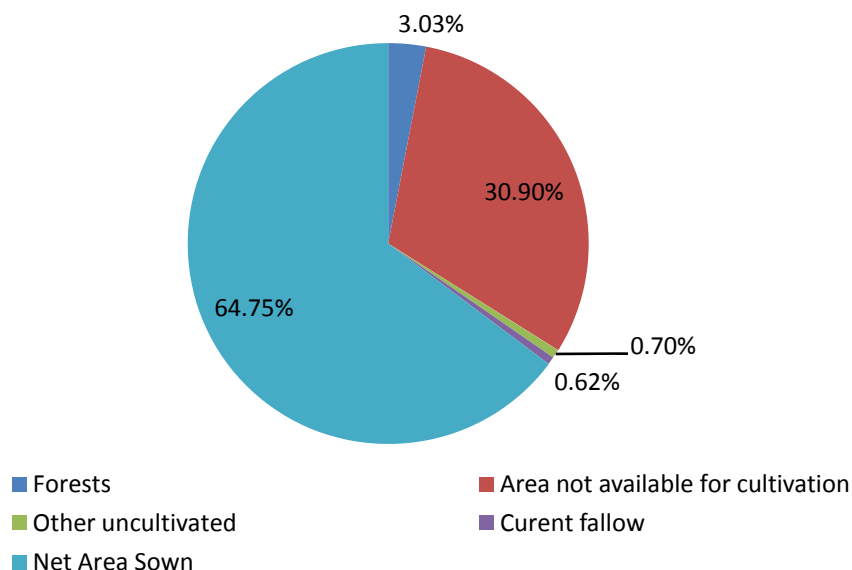
¹⁸⁰ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁸¹ Directorate of Agriculture, Govt of West Bengal

¹⁸² Directorate of Agriculture, Govt of West Bengal

¹⁸³ KPMG Analysis

Burdhwan - Land use pattern



Rice is the key agricultural crop in the district accounting for 78 percent¹⁸⁴ of net sown area cultivated in the district. Burdhwan is the fourth largest producer of rice in the state, after Hooghly, Howrah and East Midnapore. The average rice yield of 3.1 tons per hectare in the district is exceptionally high owing to availability of better irrigation facilities in the district due to projects undertaken by the Damodar Valley Corporation.¹⁸⁵ Wheat and Sesamum are other prominent crops grown in the district.

Availability of irrigation facilities has boosted horticulture activities in the district. Cabbage, cauliflower, peas, brinjal, okra, sugarcane, chillies, ginger and mango are some of the key horticultural crops grown in Burdhwan. This district is also amongst the key flower producing regions in the state.

Pisciculture is a key allied activity in the district with a workforce of over 1.4 lakhs involved in these activities¹⁸⁶. The district is the largest producer of milk in West Bengal and a major producer of eggs as well.

16.4.2.2 Industry

Burdhman has rich mineral deposits of cement & Mortar, China Clay has witnessed industrial growth in the allied sectors like ceramics, cement and fly ash. Availability of red soil in the district has supported growth of terracotta product and clay toy industry. Durgapur, Asanol, Burdhwan are key industrial locations in the district. Poultry based industries like Arambagh Hatcheries Ltd are also present in the district. As per 2011 provisional data there are 1163 registered factories in the district employing around 1,11,977 people on a daily basis.

Durgapur, one of the largest cities in this district, is home to one of the largest industrial units in the state, Durgapur Steel Plant, one of the integrated steel plants of Steel Authority of India Limited. Alloy Steels Plant of SAIL and CMERI, a CSIR laboratory, are also here. There are a number of power plants, chemical and engineering industries etc. Some metallurgical units have come up in recent years.

¹⁸⁴ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

¹⁸⁵ <http://bardhaman.nic.in/agri/agriculture.htm>

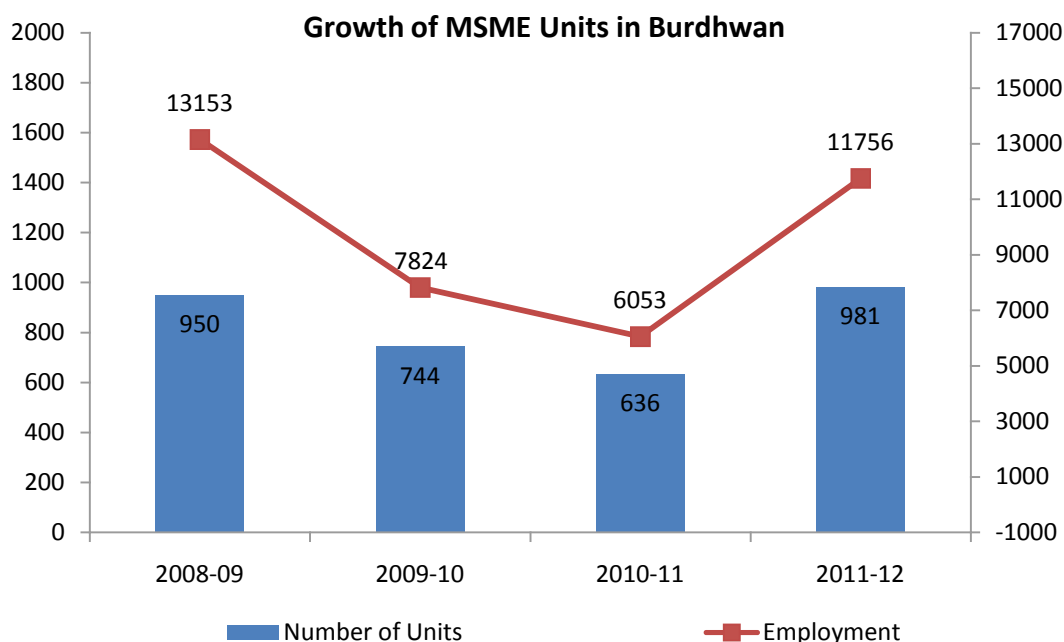
¹⁸⁶ Directorate of Pisciculture, Govt of West Bengal

Prominent investors in the city are MB Group, Jai Balaji group, SPS group, Adhunik Group of Industries, Neo Metallic, Stolberg India, Super Smelters Ltd, Shyam Steel and UltraTech Cement. City centre and Junction Mall are the main shopping centre with restaurants and high-end residential complexes. An airport city, Aerotropolis (an integrated city with contemporary infrastructure for industries, logistics hub, IT, hospitality, healthcare, education, retail and residential) is being developed by Bengal Aerotropolis Projects Limited (BAPL) at Andal near Durgapur.

Another important city in the district is Asansol, an industrial city. It has the offices of the Eastern Coalfields (a subsidiary of Coal India Limited) and IISCO Steel Plant of Steel Authority of India Limited. Other major industries in the city are Chittaranjan Locomotive, Hindustan Cables Ltd., Disergarh Power Supply, Damodar Valley Corporation (DVC), Burn Standard, Reckitt and Coleman, couple of cement plants such as Burnpur Cement, Asansol Cement, Lafarge Cement India Pvt. Ltd., iCore Cement and refractory units such as Kabita Refractories.

State-run Oil & Natural Gas Corp (ONGC) has started producing shale gas at Iochapur in Durgapur. The gas reserve spread over 12,000 square km in the Durgapur-Raniganj area are the world's third shale gas find. Raniganj region has some of the major coal fields in West Bengal. These coalfields also have reserves of iron ore and fire clay.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 3,311 units generating additional employment of over 38,786 people during the period. District with a rich production base of rice has significant number of rice mills in Burdhan. Along with rice processing mills, brick klins are a key MSME sector in the district. Employment growth trends in MSME segment are presented in the chart.

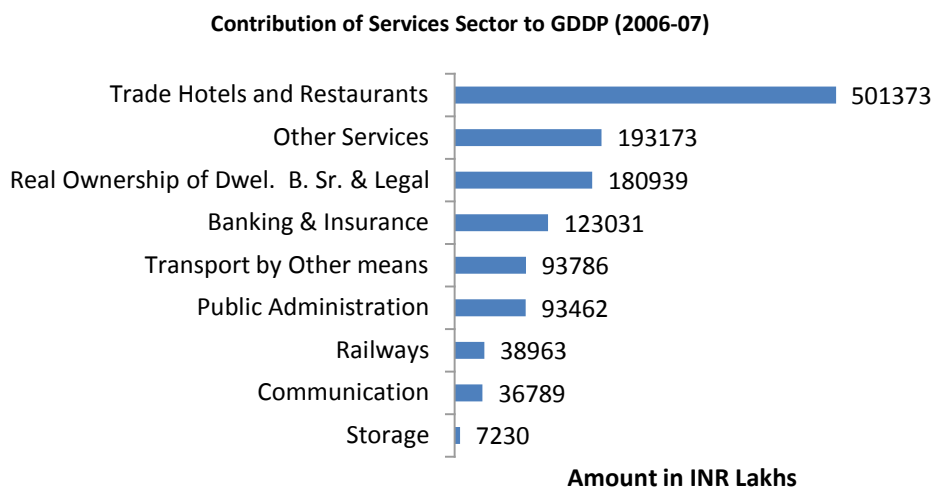


Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Birbhum district.

Existing Clusters	Clusters Identified for Promotion
Burdhman-(i) Rice Mill (ii) Dokra (iii) Wood Carving (iv) Gold & Silver Ornaments	Burdhman-Wood Carving, Dokra, Rice Mill
Durgapur-(i) Red Bricks, (ii) Refractory Bricks, (iii) Embroidery Products.	Durgapur-Red Bricks

16.4.2.3 Services Sector

Services sector has a significant place in the district economy. AS per 2006-07 GDDP estimates, this sector has contributed to 44.7 percent of overall economy. Trade & hospitality, banking, insurance and legal advices are key sub sectors in services segment. Sub sector wise breakup of services income is presented in the chart.



Tourism & hospitality industry of Burdwan has also witnessed considerable growth over the years. Durgapur Deer Park and Nachan Bird Sanctuary serve as key tourist attractions in the district.¹⁸⁷ Burdwan is a key destination for religious tourism in West Bengal with 108 Siva Mandir and the Kalyaneshwari Temple located in the district. Curzon Gate, gardens of Golapbag, Meghnad Saha Planetarium are amongst other tourist attractions in the district.

The federal government focus on developing Tier-I & Tier-II cities as destination for IT industry growth, considering the cost advantages in these locations, has helped growth of IT/ITES industry in the district. Durgapur is equipped with Incubation Center/IT Parks and another Incubation Centers/ IT Park is planned at Burdwan. Software giants like Wipro and Tata Consultancy Services are planning to move into Durgapur while IT/ITES firms like Hinduja Global Solutions Limited and Pinnacle infotech, Gates Consultants are already present here. Real estate firms like DLF and Shapoorji Pallonji are investing in the district for the development of integrated townships and IT Park along with Bengal Ambuja and the Mani Group.

The district has relatively lower penetration of banking and financial services as a percentage of GDDP at 4.34 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of the district has grown by 5.05 percent CAGR between 2006 and 2011¹⁸⁸. Bank credit has grown at the rate of 20.86 percent CAGR and the bank-

¹⁸⁷<http://www.bardhaman.gov.in/tourism/tourism.htm>

¹⁸⁸<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

deposits have had a growth of 24.29 percent CAGR in the past five years¹⁸⁹. Low penetration of banking and financial services would drive growth in the segment to sustain inclusive targets in the state.

Burdhwan has significantly high coverage of healthcare facilities. Penetration of healthcare facilities measured as population served per bed stood at 7356 in comparison to state average of 851. The district also has 104 PHCs and 35 CHCs along with 765 Sub centers¹⁹⁰. DSP Main hospital, Mission hospital, Durgapur sub-divisional hospital and Vivekananda hospital are other prominent hospitals in the district. Asanol region in the district is witnessing significant private investments in healthcare supported by growing industrial activity in the region. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Burdhan											
Medical College Hospital		District Hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	1105	0	0	4	1150	0	0	0	0	22	750
Block primary health centre		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
13	185	104	680	5	352	0	0	19	2841	197	3448
Total no of hospitals and beds		365					10511				

The Contribution of railways to GDDP has witnessed a cumulative growth of 8.2 percent and that of roadways & other transport has increased by 14.9 percent CAGR during 2001-02 and 2006-07¹⁹¹. NH-2, connecting Kolkata with national capital Delhi passes through the district. Burdhan is connected to major like Kolkata, Delhi and Mumba through Railways.

16.4.3 Workforce Distribution in the district

16.4.3.1 Current Employment Scenario in Burdhan

Work Participation Rate (WPR) in the district (35.55 percent) is marginally lower than the state average of 36.77 percent. Large variations in the occupational patterns are observed across regions in the as well as across gender categories. Female population is mostly engaged in household work resulting in significantly low participation rate.

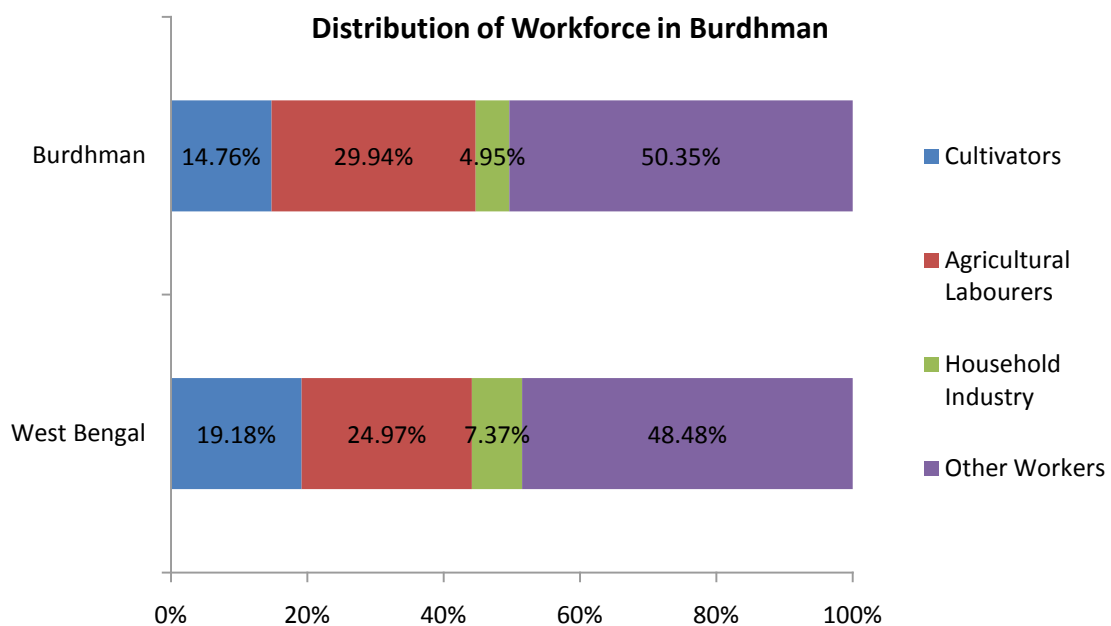
¹⁸⁹ <http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

¹⁹⁰ <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

¹⁹¹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Burdhman -Rural	38.79%	10.09%	26,61,783	9,73,858	16,87,925
Burdhman -Urban	30.02%	4.32%	17,82,490	6,93,574	10,88,916
Burdhman	35.55%	7.96%	44,44,273	16,67,432	27,76,841
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

While agriculture and allied activities are a major occupation in villages, industrial regions and urban communities engage in secondary/tertiary sectors. Over 50 percent of the total working population is categorized under 'Other Workers' category.



In Burdhman the workforce often migrates for activities ranging from seasonal agricultural work to permanent jobs in professional, clerical, Transportation related workers categories. Considering the low skill levels involved in worker category migrants, adequate training facilities can provide better employment opportunities either within or outside the district.

16.4.3.2 Estimation of Supply of Manpower in Burdhman

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Burdhman is a high human resource growth district adding 14.57 lakh to working age group during 2012-22. Limited employment opportunities within the district for this growing working population have to be addressed through suitable training.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Burdhwan	8310170	5559504	2985217	2474663	1457873
West Bengal	99530929	66586192	34291889	31828200	18481360

16.4.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Burdhan has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Burdhan. According to the estimates, in the next 5 years, Burdhan is expected to witness an incremental manpower requirement of over 4.6lakhs¹⁹² which is expected to normalize to 3.96 lakhs¹⁹³ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 are presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	19	NA	NA	19	19	NA	NA	19	38
Animal Husbandry	27918	NA	NA	27918	23265	NA	NA	23265	51183
Pisciculture	1632	NA	NA	1632	933	NA	NA	933	2565
Agro based & Food Processing	2722	2722	680	6124	2785	2228	557	5570	11694
Iron & Steel	10206	6804	1701	18711	6963	5570	1393	13926	32637
Drugs, Chemical & Petrochemicals	4082	4082	1021	9185	4178	3342	836	8355	17540
MSME (Manufacturing /Assembling/Processing)	15613	9108	1301	26022	13050	7612	1087	21750	47772
Repairing & Maintenance	4378	2554	365	7297	3648	2128	304	6081	13378
Construction	84357	12781	5113	102251	64705	17255	4314	86273	188524
IT&ITES	NA	2709	9891	12600	NA	1806	6594	8400	21000

¹⁹² KPMG Estimates on Incremental Manpower Requirement

¹⁹³ KPMG Estimates on Incremental Manpower Requirement

Healthcare	20681	2531	4600	27812	37495	4589	8340	50424	78236
Transportations and Logistics	34459	4982	2076	41516	28557	4129	1720	34406	75922
Retail	109807	15876	6615	132297	79061	11430	4763	95254	227551
Hospitality	13928	4974	995	19897	13519	4828	966	19312	39209
Communication	7311	3055	546	10911	6058	2532	452	9042	19953
Banking and Financial Services	8920	1049	525	10495	8282	974	487	9744	20239
Education and Training	625	493	4470	5588	417	329	2980	3726	9314

16.4.4 Human Resource Development in the District

16.4.4.1 Current State of Workforce Development

Burdhwan has a number of colleges and universities catering to higher education, such as NIT-Durgapur, Burdhan Raj College, Durgapur Government College and University Institute of Technology, Burdhan. It also has the Central Mechanical Engineering Research Institute, which is located in Durgapur. Burdhan Medical College, Durgapur Paramedical College, Kharagpur Homoeopathic Medical College & Hospital and Bengal Homeopathic Medical College & Hospital are among other medical and allied institutes in Burdhan. Comparison of the higher education infrastructure in Burdhan with West Bengal is presented in the table.

Category of College	West Bengal	Burdhan
General Degree	452	31
BEd	129	11
Physical Education	20	–
Law	26	4
Music	2	1
Art	4	1
Engineering & Technology	85	15
Business Management & Hotel Management	42	9
Total	760	72
Density(Colleges per Thousand Population)	0.83	0.93

It also has 10 polytechnic institutes, highest among the districts of West Bengal. However, accessibility of vocational education in Burdhan is marginally better than the state average. Nine vocational education institutes present in the district account for a total capacity of 1480. Details of vocational education infrastructure in Burdhan is presented in the table.

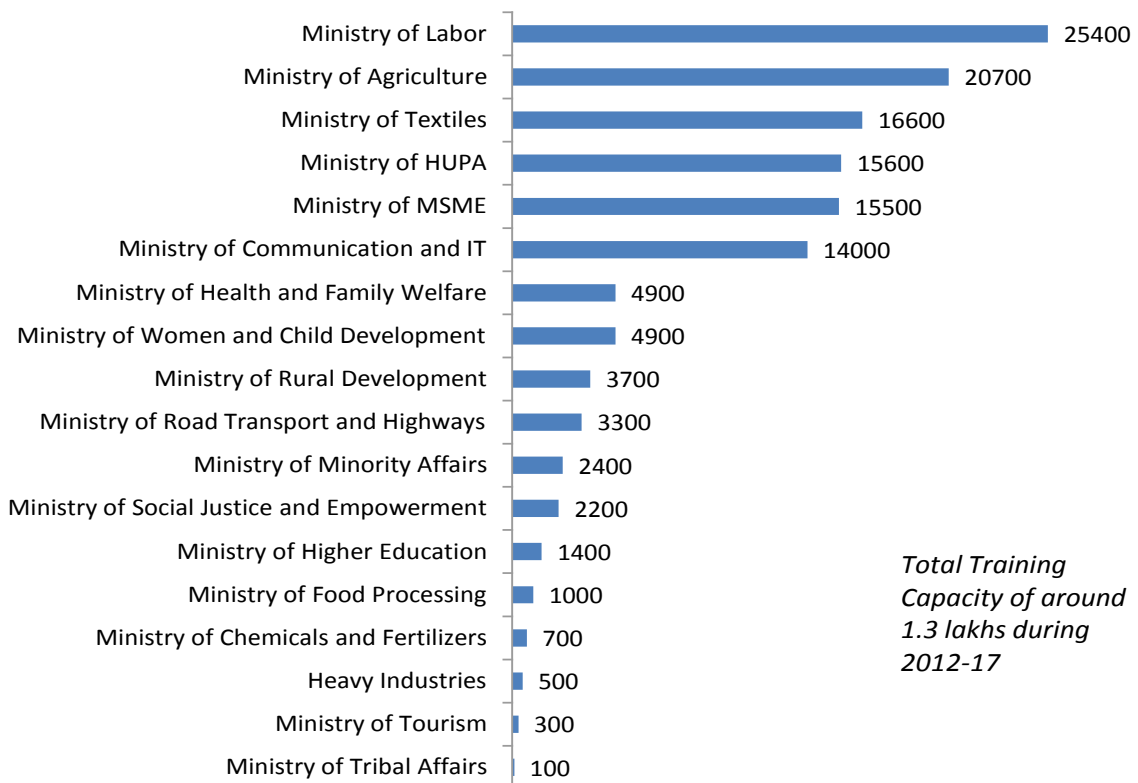
District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Burdhwan	5	2	2	9	1216	96	168	1480	0.19

Burdhwan has 8 employment exchanges, second highest in the state next to Kolkata with as high as 6,60,000 live registrations. However, placement rates were very poor with minimal private participation¹⁹⁴.

16.4.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 1.3 lakh people in total can be trained incrementally during the five year period of 2012-17. Ministry of MSME, Ministry of Labour, Other Industrial Department and Ministry of Agriculture Schemes are expected to contribute to a significant share of the training. Manpower training targets have equal focus on both primary and manufacturing sectors. Considering the large share of MSME units in the district private training providers have significant up skilling opportunities for MSME manpower in the district along with Farming focused training.

Potential Training Capacity in Burdhman during 2012-17



¹⁹⁴ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.4.5 District Specific Recommendations

Traditionally an Agrarian economy, Burdhan is now witnessing significant industrial growth due to availability of mineral reserves in the district. The region has a sizeable opportunity for direct training of manpower to the extent of 4.6 lakhs over the next five years across primarily in Construction and unorganized services sectors.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- High employment potential in manufacturing sectors of – Iron & Steel, Agrobased and Chemical
- Significant training requirements for MSME categories of rice processing mills, brick kilns.
- Large requirement of construction workers over the next five years

Considering these factors, the proposed action plan for stakeholders in skill development in Burdhan district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> • Focus on increasing participation from national/regional private skill training providers with focus on the following sectors <ul style="list-style-type: none"> ○ Construction ○ Iron & Steel ○ Agro based
District Administration Indore	<ul style="list-style-type: none"> • Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal husbandry ○ Rice processing mills, brick kilns.
Private Skill Training Providers	<ul style="list-style-type: none"> • Focus on placement driven training for youth in high growth sectors <ul style="list-style-type: none"> ○ Construction ○ Iron & Steel
Corporate	<ul style="list-style-type: none"> • Provide training for skills in those sector where the requirement for absorption within the corporate is higher such as <ul style="list-style-type: none"> ○ Construction ○ Iron & Steel • Initiate and support modular employability skill training in collaboration with private players/Government • To create placement linkage opportunities in training institutions

16.5 Skill Gap Assessment of Cooch Behar District

16.5.1 Social Profile

16.5.1.1 Demographics

Cooch Behar has a population of 28.2 lakhs¹⁹⁵ as per 2011 Census. The district population has witnessed a growth of 13.86 percent during 2001-11. It is among the marginally populated districts with a density of 833 persons per square km in comparison to state average of 1029¹⁹⁶ persons per sq.km. Cooch Behar is predominantly rural with 89.75 percent share of rural population¹⁹⁷. Adult gender ratio of the district at 942 females per 1000 males is marginally lower than state average of 947 females per 1000 males. Child gender ratio of Cooch Behar has reduced from 964 females per 1000 males in 2001 to 948 females per 1000 males in 2011. Cooch Behar is among priority reserved districts with reserved population accounting for 50.69 percent¹⁹⁸ of total population.

16.5.1.2 Literacy

Average literacy of Cooch Behar standing at 75.49 percent¹⁹⁹ is comparable to the state average of 77.08 percent²⁰⁰. Female literacy rate of the district has improved significantly from 56.12 percent in 2001 to 69.08 percent in 2011²⁰¹. District has 3413 K12²⁰² schools with 88.92 percent²⁰³ share of Government schools. Drop-out rates at both primary and upper primary levels are comparable to that of state averages. Comparison of district school education statistics with overall state details is given in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Cooch Behar	225118	2412	1.07%	260243	4664	1.79%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.5.2 District Economy

Cooch Behar is a moderate economy among the districts of West Bengal. However, the district has witnessed tremendous growth over the recent years. During 2001-02 and 2006-07 the district income has grown at a cumulative growth rate of 14.70 percent²⁰⁴ in comparison to state average of 11.65 percent²⁰⁵. The economy is predominantly dependant on primary sector activities. Growth in agriculture and allied activities income has lead to steep increase in district income in the period between 2005-06 and 2006-07. Sub-Sector wise district income trends are presented in the chart.

¹⁹⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹⁸http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

¹⁹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁰⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

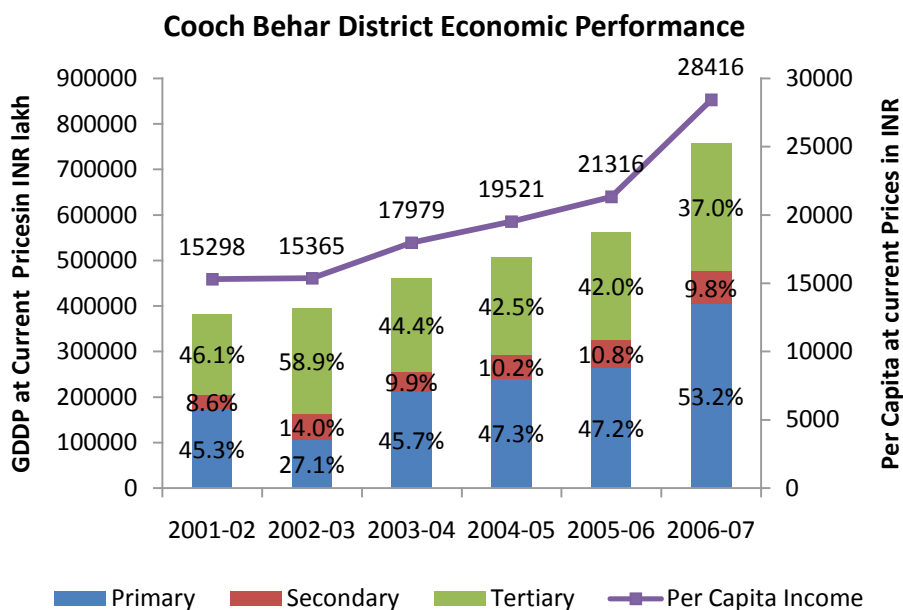
²⁰¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁰²<http://www.dise.in/drc.htm>

²⁰³<http://www.dise.in/drc.htm>

²⁰⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

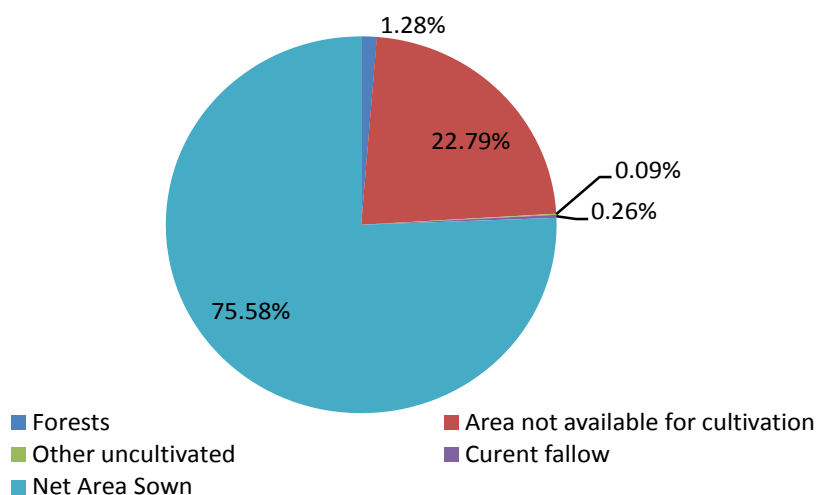
²⁰⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



16.5.2.1 Agriculture and allied sectors

Cooch Behar is an agrarian economy with a high proportion of total geographical area (76 percent²⁰⁶) available for cultivation. It has ample irrigation facilities in the form of 6 major rivers, 24 medium -minor rivers. Total length of rivers flowing through the district is close to 800 km, with over 1600 km of total bank length.²⁰⁷ Apart from rivers, minor irrigation schemes have been successfully implemented in the district for setting up hand pumps, diesel pumps, etc.,²⁰⁸. Further, schemes like the Special State Plan, Catalytic Development Programme, MGNREGS and RKVY have helped farmers gain access to irrigation implements and post-processing equipments. The climatic conditions of humid weather is conducive for cultivation making Cooch Behar an agricultural hub. The land usage distribution is presented in the chart.

Cooch Behar - Land use pattern



²⁰⁶ Directorate of Agriculture, Govt of West Bengal

²⁰⁷ KPMG Analysis

²⁰⁸ KPMG Analysis

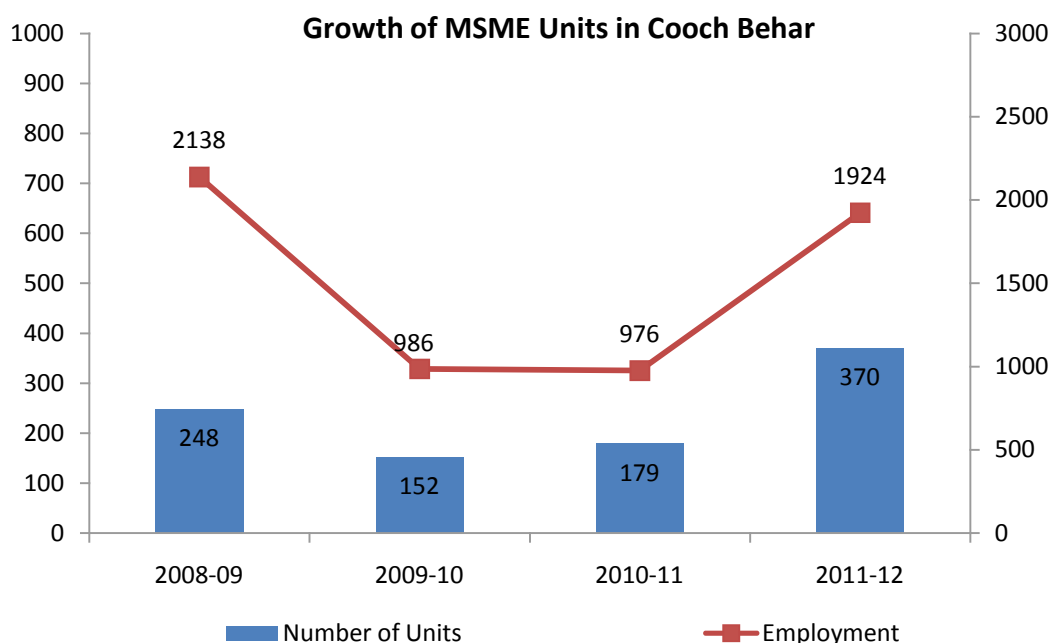
Rice, wheat, maize, rapeseed, mustard and jute are the key agricultural crops in Cooch Behar. Around half of net cultivated area is under Rice cultivation. The district is witnessing significant variations in cropping patterns with cultivation of maize growing while rapeseed and mustard cultivation has declined²⁰⁹. Jute cultivation is an essential part of the district agricultural activity supporting the growth jute mills in the region. Tobacco, jackfruit, pulses, fiber and chili are other important crops in Cooch Behar.

Pisciculture is a key allied activity in the district with a workforce of over 1.46 lakhs involved in these activities²¹⁰. Cooch Bihar has over 6000 ha. of water area, of which around 50% is used for beel fisheries and 30% for tank culture. Technological and infrastructural support in sericulture has led to development of the sector. The district is a key silk producing region in West Bengal. Both Mulberry and Muga silk varieties are cultivated.

16.5.2.2 Industry

Cooch Behar has witnessed relatively low industrial development. As per 2011 provisional data there are 45 registered factories in the district employing around 2,774 on a daily basis. Agro Processing, Tea and Jute industries prominent in Cooch Behar. Cooch Behar Roller Flour Mills(P)Ltd, North Bengal Straw Board Pvt.Ltd, T& I Global Ltd are the key industries in the district. Currently Chakchaka industrial hub is the only industrial center in the district. Government has proposed to set up a jute industrial hub in approximately 33 acres of land.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 949 units generating additional employment of over 6,024 during the period. Jute and Jute Product units have significant potential in the district. Employment growth trends in MSME segment are presented in the chart.



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Cooch Behar district.

²⁰⁹KPMG Analysis

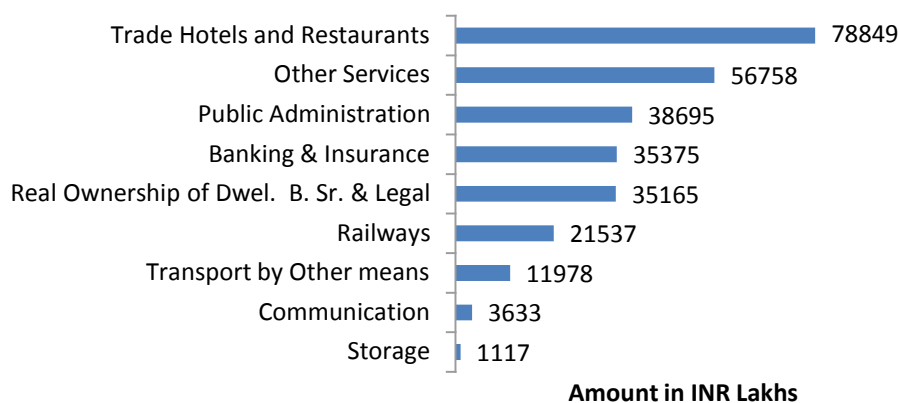
²¹⁰ Directorate of Pisciculture, Govt of West Bengal

Existing Clusters	Clusters Identified for Promotion
(i) Sital Pati, (ii) Jute Products.	Jute Products

16.5.2.3 Services Sector

Service sector plays a key role in Cooch Behar economy contributing 36.99 percent²¹¹ to GDDP during 2006-07. Sector has witnessed a cumulative growth of 9.8 percent²¹² during 2001-02 and 2006-07. Trade and hospitality, legal advice and banking & financial services are the prominent tertiary activities in the district. Sub sector wise breakup of services income is presented in the chart.

Contribution of Services Sector to GDDP (2006-07)



Tourism & hospitality industry has a significant role in providing livelihood to district workforce. Raas Mela organized in the district attracts tourists from within and outside West Bengal²¹³. Madan Mohan Bari Temple, Cooch Behar Palace, RasikBeel, Tinbigaha and Dooars are prominent tourist destinations in Cooch Behar.

The district has a relatively low penetration of banking and financial services measured as a percentage of GDDP at 4.54 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of the district has grown by 4.04 percent CAGR between 2006 and 2011²¹⁴. Cooch Behar has thrice the number of nationalized banks as compared to state banks. Bank credit has grown at the rate of 19.68 percent CAGR and the bank-deposits have had a growth of 24.07 percent CAGR in the past five years²¹⁵. Low penetration of banking and financial services would drive significant growth of the sector in line with financial inclusion targets over the next decade.

Cooch Behar has 29 PHCs and 12 CHCs along with 406 Sub centers²¹⁶. The healthcare coverage In terms of population served per bed at 1,231 persons per bed is significantly low in comparison to state average of 851 persons per bed. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

²¹¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²¹²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²¹³http://coochbehar.nic.in/Htmfiles/Fairs_n_Festivals.html

²¹⁴<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

²¹⁵<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

²¹⁶<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in Cooch Behar											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	500	4	670	0	0	2	150	8	240
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
4	30	29	202	2	40	0	0	1	2	20	460
Total no of hospitals and beds		71					2294				

Contribution of railways to GDDP has increased at 8.2 percent CAGR and that of roadways and other transport has increased at 0.4 percent CAGR during 2001-02 and 2006-07 ²¹⁷. While there are no major highways passing through the district, train services are well developed in the region with direct connections to Kolkata, Delhi, Mumbai, Bangalore, Chennai and Guwahati. The government is exploring options to revive Cooch Behar airport project constrained by small runway with feasibility to operate only 20-seater small aircrafts.

16.5.3 Workforce Distribution in the district

16.5.3.1 Current Employment Scenario in Cooch Behar

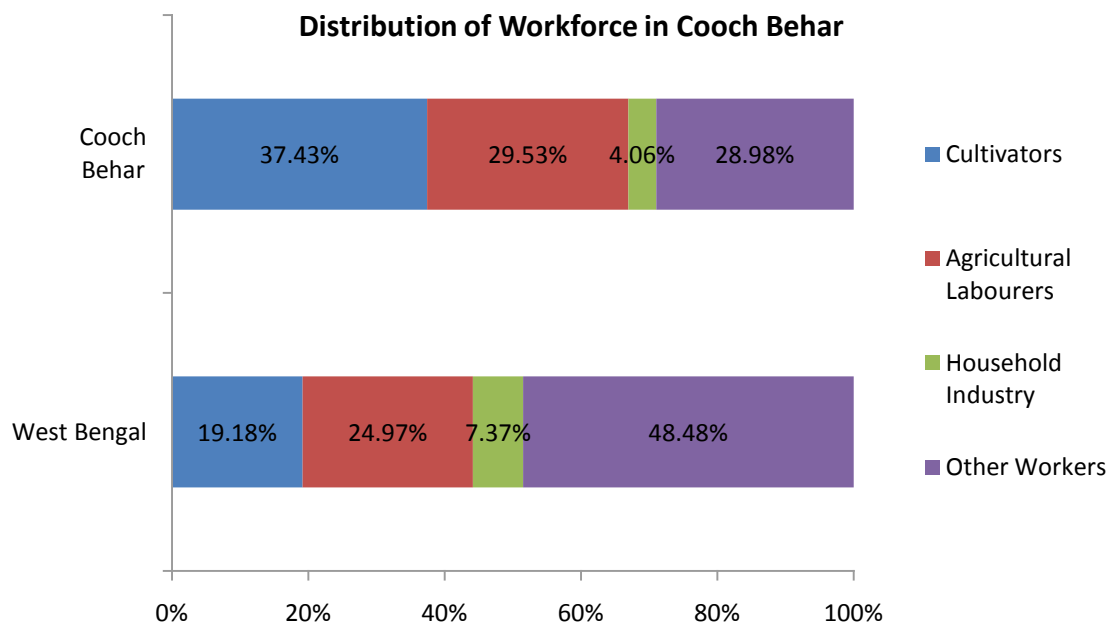
Work Participation Rate (WPR) in the district (38.99percent) is marginally higher than the state average of 36.77 percent. While female population has low participation rates, even villages with low economic activity have registered considerable worker participation in casual labour category indicating the low employee productivity in these regions.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Cooch Behar - Rural	39.64%	9.21%	13,60,226	5,19,182	8,41,044
Cooch Behar - Urban	32.53%	2.14%	1,52,224	54,362	97,862

²¹⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Cooch Behar	38.99%	8.57%	15,12,450	5,73,544	9,38,906
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Agriculture and allied activities is a major occupation in the district with over two thirds of total workforce employed in the sector. The district has considerably lower household industrial intensity in comparison to state average indicating possibilities to promote development of such industries considering the excessive dependence on agriculture.



Migration of unskilled labour to different states from Cooch Behar is a key issue considering the lack of significant employment opportunities within the district. Due to excessive migration, performance of district in the 33-day work scheme under the NREGS has been poor, with the only 15 average number of working days. Significant migration is observed to Nepal and Bhutan. Self employment oriented skill development has to be taken up to address the migration issues in the district.

16.5.3.2 Estimation of Manpower Supply in Cooch Behar

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Cooch Behar is a moderately low human resource growth district adding 6.22 lakh to working age group during 2012-22.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Cooch Behar	3070161	2053938	1215939	1007980	622394
West Bengal	99530929	66586192	34291889	31828200	18481360

16.5.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Cooch Behar has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Cooch Behar. According to the estimates, in the next 5 years, Cooch Behar is expected to witness an incremental manpower requirement of over 1.03 lakhs ²¹⁸ which is expected to normalize to 85 thousand ²¹⁹ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	861	NA	NA	861	859	NA	NA	859	1720
Animal Husbandry	10787	NA	NA	10787	8989	NA	NA	8989	19776
Pisciculture	12227	NA	NA	12227	6987	NA	NA	6987	19214
Agro based & Food Processing	335	268	67	670	274	219	55	548	1218
Jute & Textiles	502	402	100	1005	411	329	82	823	1828
MSME (Manufacturing /Assembling /Processing)	2425	1415	202	4042	2027	1182	169	3378	7420
Repairing & Maintenance	680	397	57	1133	567	331	47	944	2077
Construction	18249	2765	1106	22120	13997	3733	933	18663	40783

²¹⁸ KPMG Estimates on Incremental Manpower Requirement

²¹⁹ KPMG Estimates on Incremental Manpower Requirement

Healthcare	4223	517	939	5680	7552	924	1680	10157	15837
Transportations and Logistics	3968	574	239	4780	3288	475	198	3962	8742
Retail	21836	3157	1315	26309	15722	2273	947	18942	45251
Hospitality	4008	1431	286	5726	3890	1389	278	5558	11284
Communication	1068	446	80	1594	885	370	66	1321	2915
Banking and Financial Services	2497	294	147	2937	2318	273	136	2727	5664
Education and Training	899	709	1601	3209	599	473	1067	2139	5348

16.5.4 Human Resource Development Scenario in the District

16.5.4.1 Current State of Workforce Development

Cooch Behar has limited penetration of higher educational infrastructure in comparison to state average. Sitalkuchi College, Uttarbanga Krishi Viswavidyalaya, Cooch Behar College and University B. T. and Evening College are among key higher education institutes in the district. Comparison of higher education infrastructure in Cooch Behar with West Bengal is presented in the table.

Category of College	West Bengal	Cooch Behar
General Degree	452	13
BEd	129	1
Physical Education	20	1
Law	26	–
Music	2	–
Art	4	–
Engineering & Technology	85	–
Business Management & Hotel Management	42	–
Total	760	15
Density(Colleges per Thousand Population)	0.83	0.53

Accessibility of vocational education in Burdwan is significantly low in comparison to state average.

Coochbehar Polytechnic is the only polytechnic institution in the district. Two ITI s in the district have a total training capacity of 360. Details of vocational education infrastructure in Cooch Behar is presented in the table.

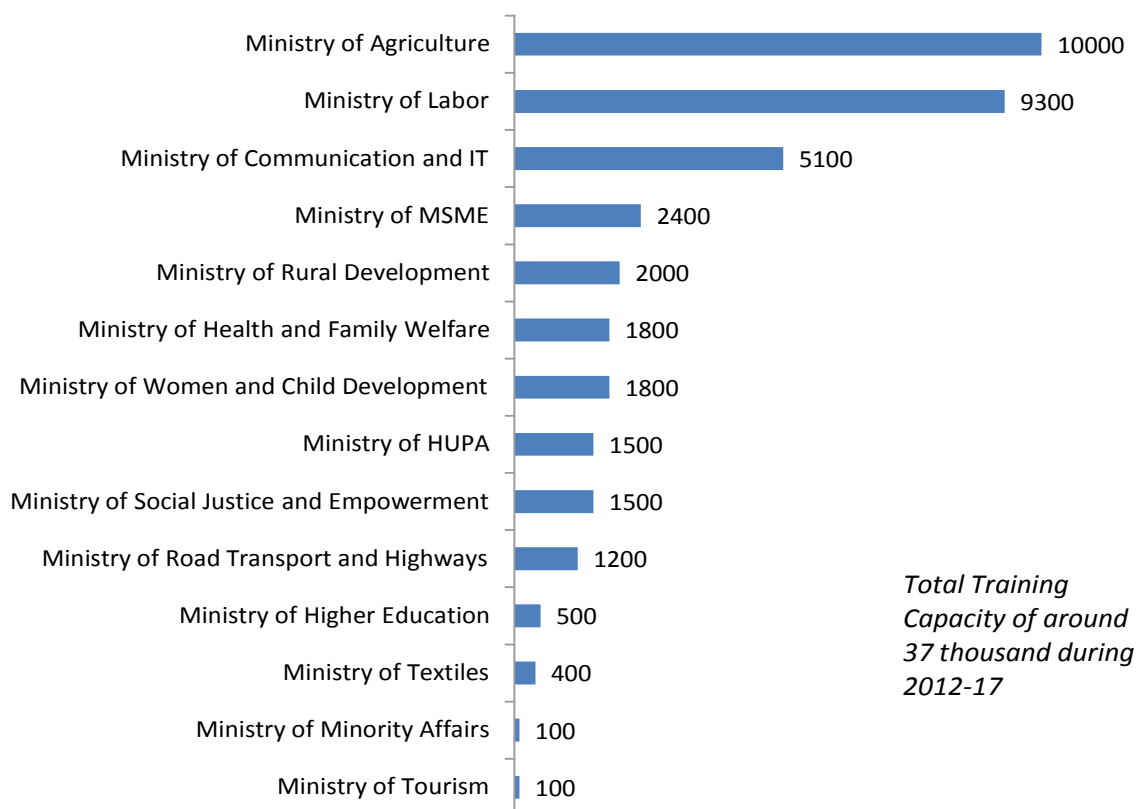
District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Cooch Behar	2			2	360			360	0.13

The district has 5 employment exchanges with over 2,00,000 live registrations. However, placement rates were very poor with minimal private participation²²⁰.

16.5.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 37 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Ministry of Labour Schemes are expected to contribute to a significant share of the training. Manpower training targets have predominant focus on primary sector considering the low level of industrial development in the district. Private training providers have opportunities in livelihood training programs.

Potential Training Capacity in Cooch Behar during 2012 -17



²²⁰ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.5.5 District Specific Recommendations

Cooch Behar is an agrarian economy with significant allied activities of Pisciculture and Animal Husbandry. Region has a sizeable opportunity in direct training of manpower to the extent of 1.03 lakhs over the next five years across primarily in Agriculture-Allied and unorganized services sectors.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- High employment potential in Allied Activities- Pisciculture, Animal Husbandry
- Key silk producing district in West Bengal
- Limited industrial growth constrained to Jute & Textile

Considering these factors, the proposed action plan for stakeholders in skill development in Cooch Behar district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> • Focus on increasing participation from national/regional private skill training providers with focus on the following sectors <ul style="list-style-type: none"> ○ Silk Production and Processing
District Administration Indore	<ul style="list-style-type: none"> • Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Pisciculture ○ Animal husbandry ○ Silk Production and Processing ○ Sital Pati, Jute Products
Private Skill Training Providers	<ul style="list-style-type: none"> • Focus on placement driven training for youth in high growth sectors of state <ul style="list-style-type: none"> ○ Iron & Steel ○ Engineering/Auto ○ IT/ITES ○ Construction ○ Retail
Corporate	<ul style="list-style-type: none"> • Develop Cooch Behar into a manpower sourcing hub • Initiate and support modular employability skill training in collaboration with private players/Government • To create placement linkage opportunities in training institutions

16.6 Skill Gap Assessment of Dakshin Dinajpur District

16.6.1 Social Profile

16.6.1.1 Demographics

Dakshin Dinajpur is least populated districts in West Bengal. As per 2011 Census, district has a population of 16.7 lakhs with 85.87 percent share of rural population²²¹. Further, decadal population growth of district has decreased from 22.15 percent during 1991-2001 to 11.16 percent during 2001-11 due to significant outward migration²²². It is among the sparsely populated regions in the state with a density of 753 persons per sq km in comparison to state average of 1029 persons per sq km²²³. Adult gender ratio of the district at 954 females per 1000 males is comparable to the child gender ratio of 948 girls per 1000 boys²²⁴. The district has significant proportion of reserved communities contributing to 44.9 percent total population²²⁵.

16.6.1.2 Literacy

As per 2011 Census, Dakshin Dinajpur has a literacy rate of 79.92 percent marginally higher than the state average of 77.1 percent. The district has 2266 K-12 institutions²²⁶ with 84.1 percent²²⁷ share of Government schools²²⁸. The district has lower dropout rates at both primary and upper primary levels in comparison to state average. Comparison of district school education statistics with overall state details is given in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Dakshin Dinajpur	136495	532	0.39%	157792	1606	1.02%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.6.2 District Economy

Dakshin Dinajpur has the least share of overall state income among the 19 districts of West Bengal. Further, the economy has been growing at a rate lesser than the state average. Dakshin Dinajpur has witnessed at a low cumulative growth rate of 8.32 percent²²⁹ during 2001-02 and 2006-07 in comparison to 11.65 percent²³⁰ of overall state average. Primary and Services sectors contribute a major share of district economy with while majority of workforce is dependent on agriculture making it an Agrarian economy. Sub-Sector wise district income trends are presented in the chart.

²²¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²²²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²²³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²²⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²²⁵http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

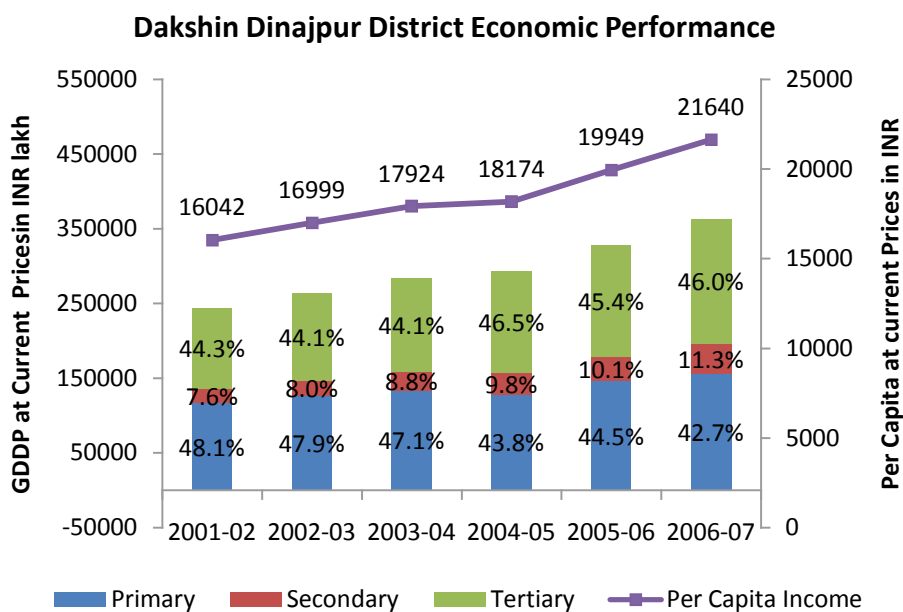
²²⁶<http://www.dise.in/drc.htm>

²²⁷<http://www.dise.in/drc.htm>

²²⁸<http://www.dise.in/drc.htm>

²²⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

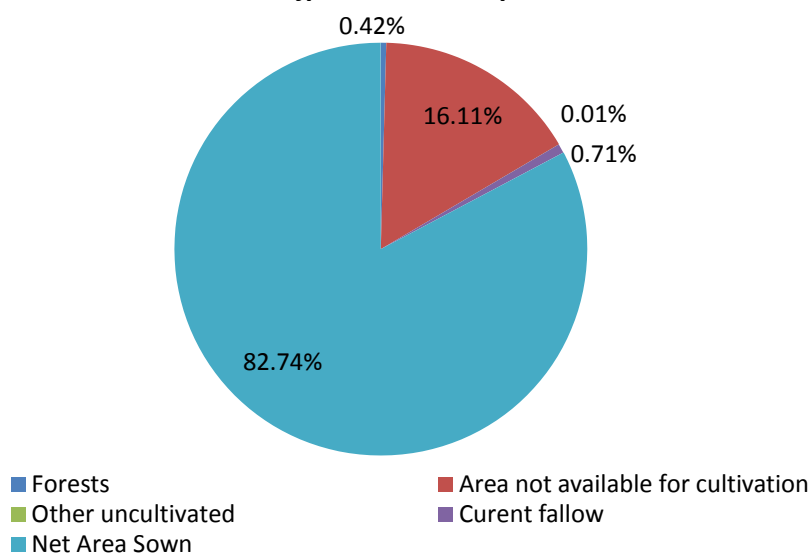
²³⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



16.6.2.1 Agriculture and allied sectors

Dakshin Dinajpur is predominantly an agrarian economy. Lesser geographical spread of the district has made Dakshin Dinajpur a district with significantly low cultivable area despite having 83.63 percent²³¹ under cultivation. Three major rivers flowing through the district, Atryee, Punarbhaba and Tangonare key sources of irrigation.²³² District land usage distribution is presented in the chart.

Dakshin Dinajpur - Land use pattern



²³¹ Directorate of Agriculture, Govt of West Bengal

²³² KPMG Analysis

Rice, wheat, maize, mustard, jute, potato, legumes and oilseeds are the key agricultural crops in the district. Rice cultivation accounts for around 40 percent of net sown area²³³ in Dakshin Dinajpur. Growth in jute production has boosted jute industry of this region.²³⁴ Demand for cultivation of oil seeds like mustard, rapeseed, etc. is growing due to availability of market in the form of industries within the district.

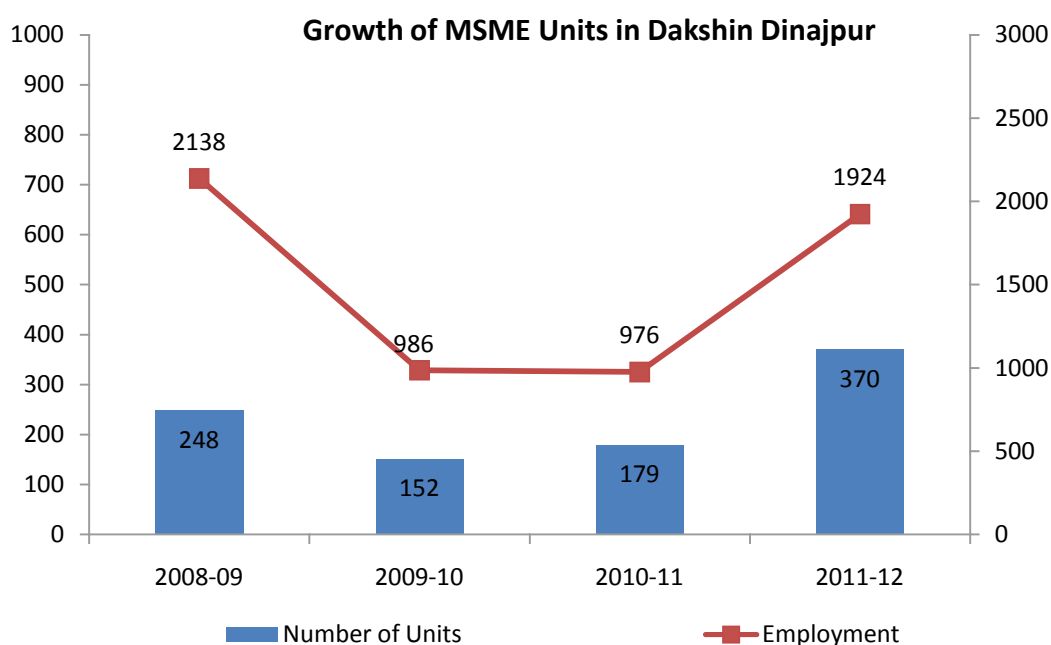
The district has significant potential for river based pisci culture. Further, around 6,800 ha of land is under effective usage for pisci culture employing over 1 lakh people.

Mango cultivation is undertaken in large orchards in the district. Similarly, mulberry cultivation is another allied activity undertaken in large scale. Dakshin Dinajpur is an important center for silk manufacture in West Bengal.

16.6.2.2 Industry

Dakshin Dinajpur is primarily an agrarian economy with limited industrial growth. Flourmills, Flourishing paper industry and Tea Processing Industries are among the industries operating in the district. Availability of related agricultural crops like Jute, Tea and Sugarcane is a key advantage for these industries. As per 2011 estimates there are 109 registered factories operating in Dakshin & Uttar Dinajpur districts providing average daily employment of 6,740.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 428 units generating additional employment of over 2,817 during the period. Rice Mills along with Jute and Bamboo Product units are prominent MSME units operating in the district. Employment growth trends in MSME segment are presented in the chart.



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Dakshin Dinajpur district.

²³³Directorate of Agriculture, Govt of West Bengal

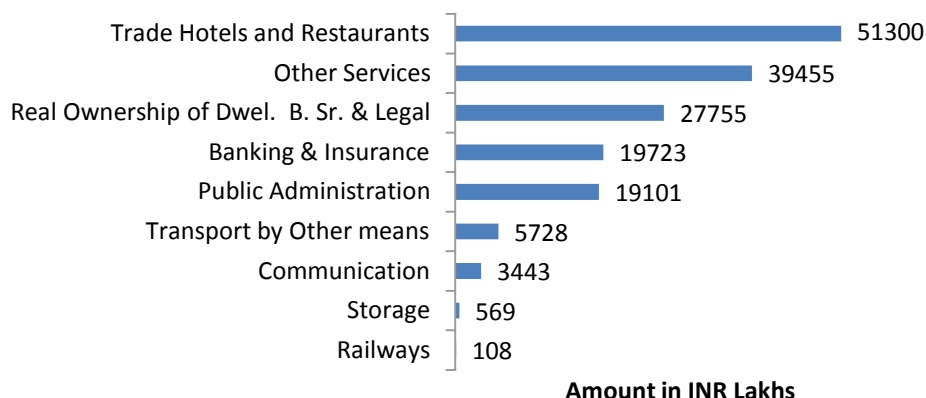
²³⁴Directorate of West Bengal, Govt of West Bengal

Existing Clusters	Clusters Identified for Promotion
(i) Rice Milling, (ii) Jute products, (iii) Bamboo Products,	Bamboo Products

16.6.2.3 Services Sector

Service sector has a key role in Dakshin Dinajpur economy. This sector contributed to 45.96 percent²³⁵ of GDDP in the year 2006-07 witnessing a cumulative growth of 9.1 percent during 2001-02 and 2006-07. Trade & hospitality, legal advice, banking and public administration are prominent tertiary activities in the district.

Contribution of Services Sector to GDDP (2006-07)



Dakshin Dinajpur has some historic tourist attractions. The district capital Devkot is a historic tourist destination with large number of inscriptions dating from Ashoka age to the middle ages discovered in the region. Sarongbari, a small forest in Hili Block is another key attraction²³⁶. College Museum, Khanpur and Bolla Kali Temple in Balurghat block²³⁷ are among other important tourist places witnessing tourist visits from local areas.

The district has penetration of banking and financial services measured as a percentage of GDDP at 5.42 percent comparable to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches have grown at 5.77 percent CAGR between 2006 and 2011²³⁸. Bank credit has grown at the rate of 13.49 percent CAGR and the bank-deposits have had a growth at 15.01 percent CAGR in the past five years²³⁹.

Healthcare coverage In terms of population served per bed at 1,298 persons per bed is significantly low in comparison to state average of 851 persons per bed. District has 18 PHCs and 8 CHCs along with 247 Sub centers²⁴⁰ including a military hospital and few homeopathic and ayurvedic hospitals. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

²³⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²³⁶http://www.ddinajpur.nic.in/Tourist_Interest/tourist_interest.html

²³⁷http://www.ddinajpur.nic.in/Tourist_Interest/tourist_interest.html

²³⁸<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

²³⁹<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

²⁴⁰<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in Dakshin Dinajpur											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	400	1	300	0	0	0	0	7	205
Block primary health centers		Primary Health centre		State Government Other Departments		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	10	18	180	1	50	1	32	0	0	9	110
Total no of hospitals and beds		39					1287				

Contribution of railways to GDDP has grown at 8.9 percent CAGR and that of roadways and other transport has increased at 9.6 percent CAGR over the past 5 years²⁴¹. The district has one state highway and a limited spread of NH 34 connecting Dum Dum in North Kolkata to Dakhola in Uttar Dinajpur²⁴². Train services have started in the district from 2004.

16.6.3 Workforce Distribution in the district

16.6.3.1 Current Employment Scenario in Dakshin Dinajpur

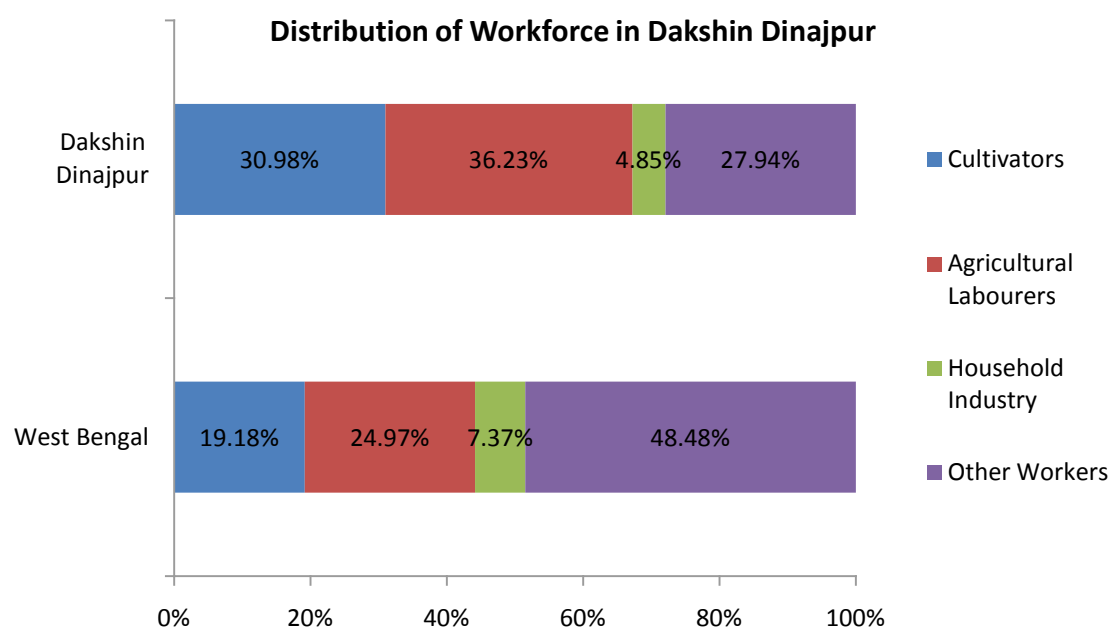
Work Participation Rate (WPR) in the district (40.76 percent) is higher than the state average of 36.77 percent. High dependency on agriculture with large area of land being under cultivation is a key reason for better participation rates in the district. However, considering the low employment intensity in agriculture significant underemployment is witnessed in the district especially in predominant marginal farmer community of the district.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Dakshin Dinajpur - Rural	42.13%	10.43%	7,55,964	2,90,364	4,65,600
Dakshin Dinajpur - Urban	31.68%	2.7%	1,34,486	51,499	82,987
Dakshin Dinajpur	40.76%	9.42%	8,90,450	3,41,863	5,48,587
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

²⁴¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

²⁴²http://nadia.gov.in/District_Profile/District_Profile-Details-page1/district_profile-details-page1.html#8

Agriculture and allied activities is a major occupation in the district with over two thirds of total workforce employed in the sector. The district has considerably lower household industrial intensity in comparison to state average, indicating possibilities to promote development of such industries considering the excessive dependence on agriculture.



Dakshin Dinajpur has been a destination for in-ward migration to rural areas. The district being a bordering region with Bangladesh, has witnessed cross country migration during socio political uncertainty waves. Employment related migration into the district is primarily driven by availability of fertile soil and agricultural facilities in rural areas. Migration is observed from districts like Malda, Murshidabad.

16.6.3.2 Estimation of Supply of Manpower in Dakshin Dinajpur

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Dakshin Dinajpur is a low human resource growth district adding 3.81 lakhs to working age group during 2012-22 due to migration to industrially advanced districts. Considering limited employment opportunities within the district adequate skill training for imparting employable skills outside Dakshin Dinajpur is a key for the employment growth.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Dakshin Dinajpur	1788835	1196730	740191	613598	381865
West Bengal	99530929	66586192	34291889	31828200	18481360

16.6.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Dakshin Dinajpur has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Dakshin Dinajpur. According to the estimates, in the next 5 years, Dakshin Dinajpur is expected to witness an incremental manpower requirement of over 47 thousand²⁴³ which is expected to normalize to 40 thousand²⁴⁴ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	25	NA	NA	25	22	NA	NA	22	47
Animal Husbandry	6440	NA	NA	6440	5367	NA	NA	5367	11807
Pisciculture	1871	NA	NA	1871	1069	NA	NA	1069	2940
Agro based & Food Processing	447	358	89	894	366	293	73	732	1626
Jute & Textiles	298	238	60	596	244	195	49	488	1084
MSME (Manufacturing /Assembling /Processing)	1134	661	94	1890	948	553	79	1580	3470
Repairing & Maintenance	318	185	26	530	265	155	22	442	972
Construction	7301	1106	442	8850	5600	1493	373	7467	16317
Healthcare	2757	337	613	3708	4335	531	964	5830	9538
Transportations and Logistics	1577	228	95	1900	1307	189	79	1574	3474
Retail	11235	1624	677	13537	8089	1170	487	9746	23283
Hospitality	2062	737	147	2946	2002	715	143	2860	5806
Communication	684	286	51	1021	567	237	42	846	1867
Banking and Financial Services	1430	168	84	1682	1328	156	78	1562	3244
Education and Training	272	214	971	1457	181	143	647	971	2428

²⁴³ KPMG Estimates on Incremental Manpower Requirement

²⁴⁴ KPMG Estimates on Incremental Manpower Requirement

16.6.4 Human Resource Development Scenario in the District

16.6.4.1 Current State of Workforce Development

Dakshin Dinajpur has limited number of colleges and training institutions. Uttar Banga Krishi Vidyalaya is a key technical education institute in this region. . Comparison of higher education infrastructure in Dakshin Dinajpur with West Bengal is presented in the table.

Category of College	West Bengal	Dakshin Dinajpur
General Degree	452	7
BEd	129	2
Physical Education	20	–
Law	26	1
Music	2	–
Art	4	–
Engineering & Technology	85	1
Business Management& Hotel Management	42	–
Total	760	11
Density(Colleges per Thousand Population)	0.83	0.66

Accessibility of vocational education in Dakshin Dinajpur is marginally better than the state average. While there are no polytechnic colleges, district has two ITI s with a training capacity of 344. Details of vocational education infrastructure in Dakshin Dinajpur is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Pivate ITI	Total	Govt ITI	Govt ITC	Pivate ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Dakshin Dinajpur	2			2	344			344	0.21

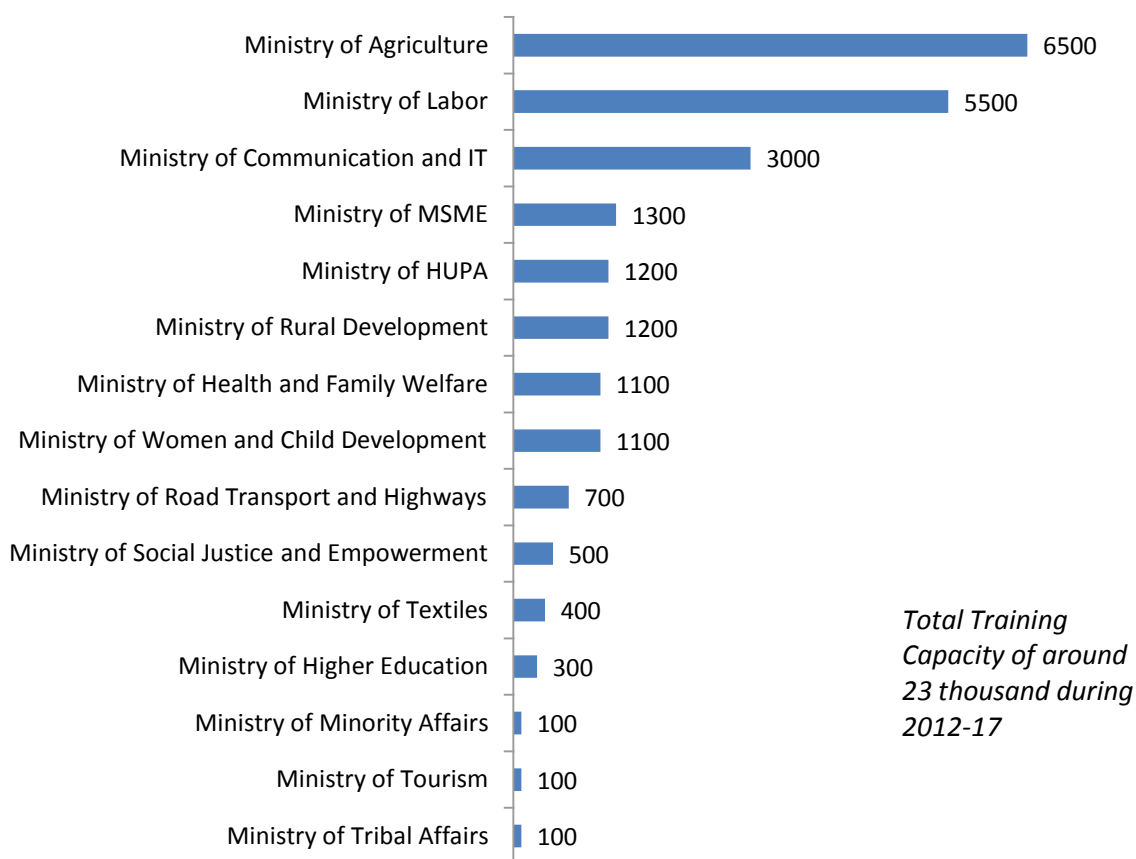
Limited number of higher educational institutes and training centers is reflected in 1,15,000 live registrations in the only employment exchange function in Dakshin Dinajpur. Further, placement rates were very poor with minimal private participation²⁴⁵.

²⁴⁵ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.6.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 23 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Ministry of Labour Schemes are expected to contribute to a significant share of the training. Manpower training targets have predominant focus on primary sector considering the low level of industrial development in the district. Private training providers have opportunities in farming and livelihood training programs.

Potential Training Capacity in Dakshin Dinajpur during 2012 -17



16.6.5 District Specific Recommendations

Dakshin Dinajpur is primarily an agrarian economy with limited industrial growth. Region has opportunity in direct training of manpower to the extent of 47 thousand over the next five years across primarily in unorganized services sector.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Limited direct employment opportunities within the district
- Greater need to promote allied activities to support agrarian family income
- Limited industrial growth constrained to Flour Mills, Rice Mills, Jute & Textile and Bamboo making units mostly in MSME category

Considering these factors, the proposed action plan for stakeholders in skill development in Dakshin Dinajpur district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers with focus on meeting large manpower requirements in West Bengal/outside the state.
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal husbandry ○ Bamboo making industry
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus on placement driven training for youth in high growth sectors of state <ul style="list-style-type: none"> ○ Iron & Steel ○ Engineering/Auto ○ IT/ITES ○ Construction ○ Retail
Corporate	<ul style="list-style-type: none"> ● Develop Dakshin Dinajpur into a manpower sourcing hub ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.7 Skill Gap Assessment of Darjeeling (Including Siliguri & DGHC Regions) District

16.7.1 Social Profile

16.7.1.1 Demographics

Darjeeling is second least populated district with a population of 18.4 lakhs as per 2011 Census. Around 61 percent of total district population is rural²⁴⁶. Population density of Darjeeling at 585 persons per sq. km is significantly lower than the state average due to high proportion of inhabitable hilly regions in district geographic area²⁴⁷. Adult gender ratio of Darjeeling has increased from 937 females per 1000 males in 2001 to 971 females per 1000 males in while child gender ratio has decreased from 962 girls per 1000 boys to 943 girls per 1000 boys during the same period²⁴⁸. Reserved population accounts for 28.8²⁴⁹ percent of total district population.

16.7.1.2 Literacy

The district has higher literacy rate standing at 79.92 percent as per 2011 census in comparison to state average of 70.6 percent²⁵⁰. It has around 1524 K-12 institutions²⁵¹ with 99.8 percent²⁵² share of Government schools²⁵³. Dropout rates in DGHC region are alarmingly high. While Siliguri region is marginally better, out-of school children percentage is still marginally higher than state average. Special focus need to be given in improving the access to primary and upper primary education across regions in the district. Comparison of district school education statistics with overall state details is presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
DGHC	97468	2813	2.89%	112676	5128	4.55%
Siliguri	88516	1053	1.19%	85759	2430	2.83%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.7.2 District Economy

Darjeeling district is a moderate economy in West Bengal. District economy has grown at a marginally lower rate of 10.62 percent²⁵⁴ during 2001-02 and 2006-07 in comparison to 11.65 percent²⁵⁵ of overall state average. Tertiary sector, driven by the growth of tourism in the district contributes highest share of state income. Tea plantation and processing industries owing to geographical advantages, has made significant contributions towards Primary and Secondary Incomes of the

²⁴⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴⁹http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

²⁵⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁵¹<http://www.dise.in/drc.htm>

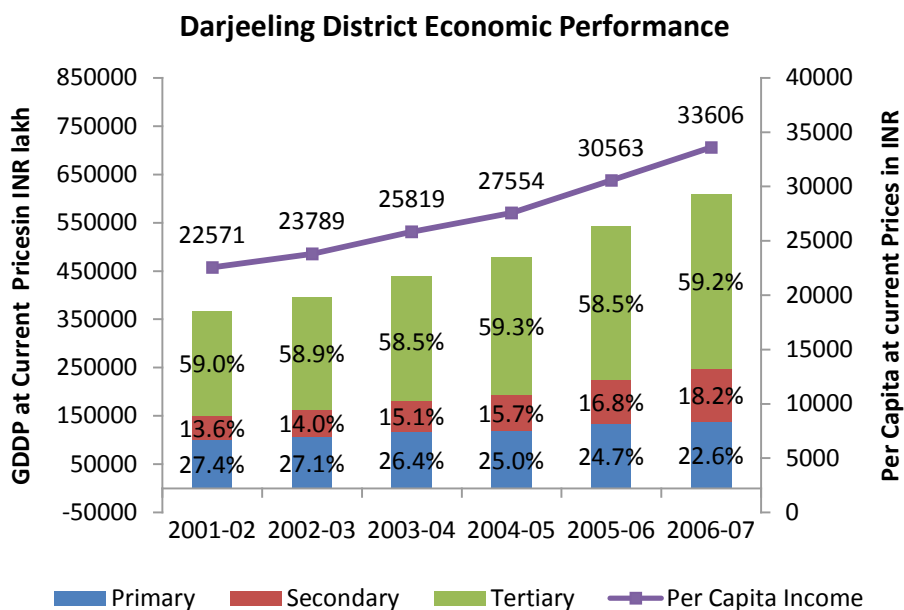
²⁵²<http://www.dise.in/drc.htm>

²⁵³<http://www.dise.in/drc.htm>

²⁵⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

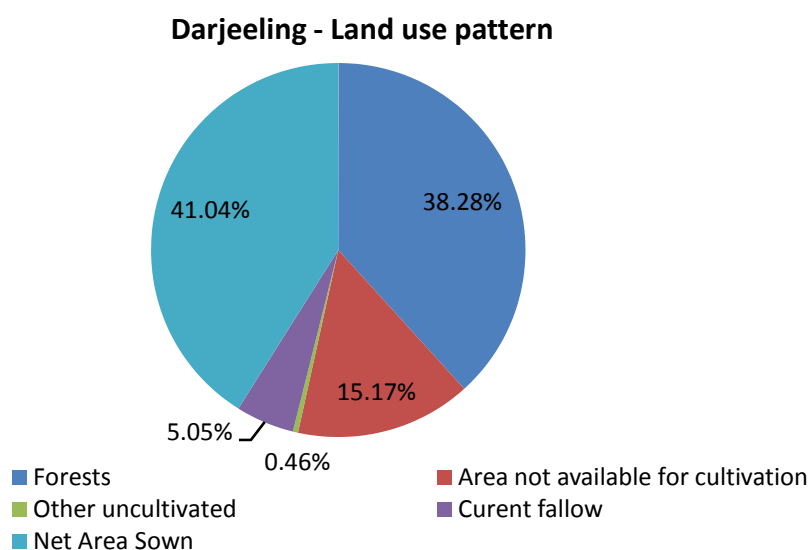
²⁵⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

district. District Per Capita Income is marginally higher than state average. Sub-Sector wise district income growth trends are presented in the chart.



16.7.2.1 Agriculture and allied sectors

Topographical conditions in Darjeeling have limited the proportion of net sown area at 41 percent²⁵⁶ of total geographical area. District has a high proportion of (38.28 percent²⁵⁷) forest cover in comparison to state average of 13.52 percent²⁵⁸. District land usage distribution is presented in the chart.



²⁵⁶ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

²⁵⁷ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

²⁵⁸ Directorate of Agriculture, Govt of West Bengal

Agriculture activities of Darjeeling predominantly revolve around tea plantation. District has around 144 tea gardens of which 78 tea estates in the hills have been accorded the status 'Darjeeling Tea', by the Tea Board of India, for their produce.²⁵⁹ Tea estates cover over 17,500 hectares and produce over 9 million kg of tea, engaging close to 50 percent workforce of the district.²⁶⁰

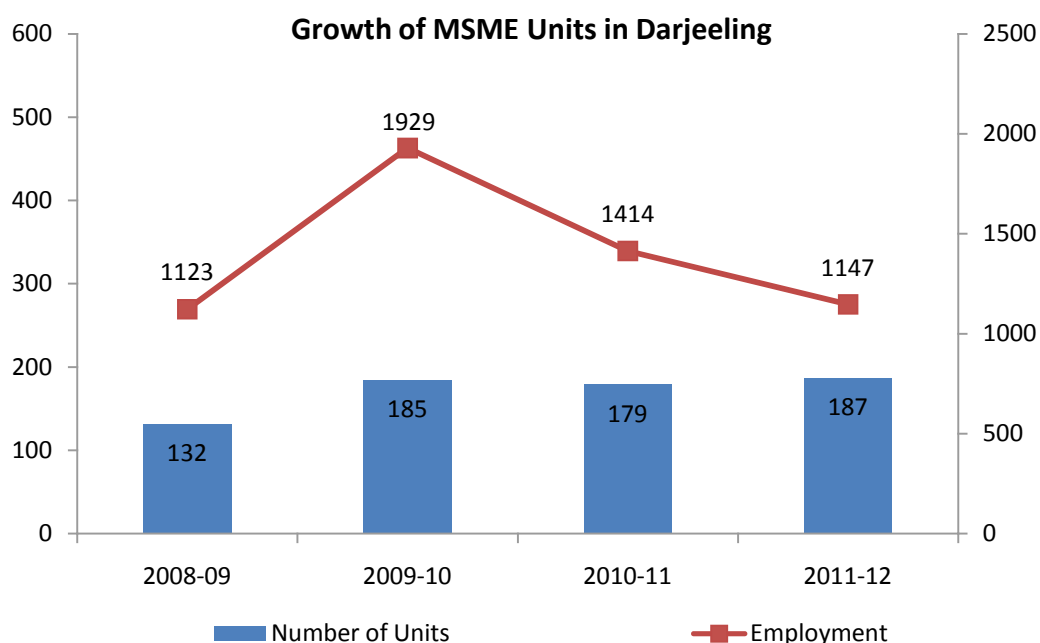
Orchid species like Cymbidiums, Vandas, Dendrobiums, Paphiopedilums, Lycaste, Odontoglossum, Phaius, Arundina etc. found in the district are of high economic value.²⁶¹ Darjeeling is a floriculture hub in West Bengal. District has over four thousand species of flowering plants²⁶².

Rice and maize are grown in minimal area in the district. Darjeeling is also a minor producer of eggs and milk.

16.7.2.2 Industry

Industrial development in Darjeeling is primarily attributed to availability of key crops like Tea, Orange, Cardamom, Tea and Timber. Food processing units, Tea and Wood based industries are prominent in the district. North Bengal Trade & Rolling Mills Ltd, Cacher King Plantation Pvt.Ltd, Sovarani Tea Co.Pvt.Ltd, Indian Oil Corpn. Ltd, Delta Fabrics(P)Ltd are major industries operating in Darjeeling. As per 2011 estimates there are 309 registered factories operating in Darjeeling providing average daily employment of 16,215.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 683 units generating additional employment of over 5,613 during the period. Woolen Products, Food Honey Processing, Pottery are prominent MSME units operating in the district. Employment growth trends in MSME segment are presented in the chart.



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Darjeeling district.

²⁵⁹ Directorate of Agriculture, Govt of West Bengal

²⁶⁰ Directorate of Agriculture, Govt of West Bengal

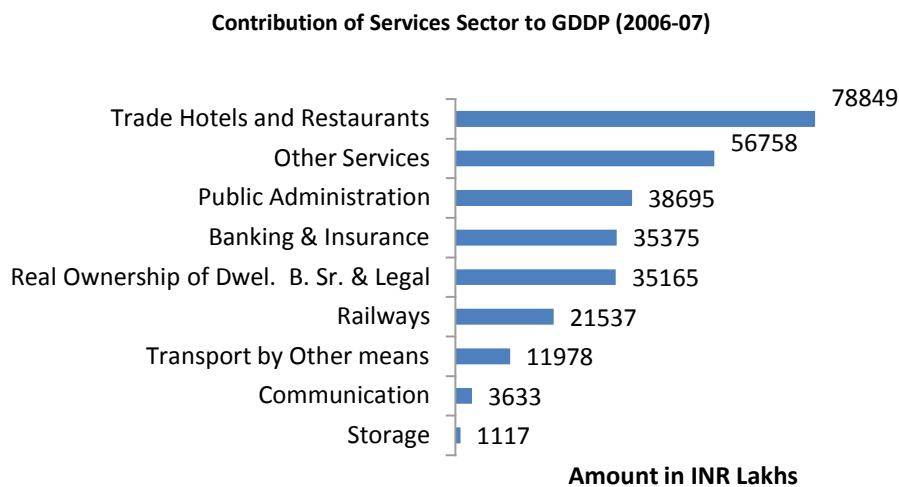
²⁶¹ Directorate of Agriculture, Govt of West Bengal

²⁶² KPMG Analysis

Region	Existing Clusters	Clusters Identified for Promotion
Darjeeling	(i) Woolen Products (iii) Honey Processing	Honey Processing
Siliguri	(i) Fruit Processing, (ii) Earthen Pottery, (iii) Automobile repairing, (iv) Storage battery.	Clay Pottery

16.7.2.3 Services Sector

Service sector is the backbone to the economy of Darjeeling. This sector has contributed to 59.16 percent²⁶³ of GDDP in the year 2006-07 witnessing a cumulative growth rate of 10.7 percent in the period between 2001-02 and 2006-07. Tourism, hospitality, healthcare are some of the key services sectors in the district. Sub sector wise breakup of services income is presented in the chart.



District has an unique geographical advantage with a mountainous topography and is a leading tourist destination in West Bengal. Tiger Hill is a wellknown tourist spot in this district²⁶⁴. Hill stations like Lalimpong, Sandakphu and Kurseong attract domestic and foreign tourists during the summer months. Other tourist attractions in the district are Mirik lake resort, Botanical Garden, Nightingale Park, Senchal Lake, Dhiridham Temple, Mahananda Wildlife Sanctuary and Ghoom Monastery²⁶⁵.

Darjeeling has relatively high penetration of banking and financial services measured as a percentage of GDDP at 6.12 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown at 5.41 percent CAGR between 2006 and 2011²⁶⁶. Bank credit witnessed a growth of 12.99 percent CAGR and bank-deposits had a growth of 20.94 percent CAGR in the past five years²⁶⁷. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

²⁶³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁶⁴<http://darjeeling.gov.in/darj-tour.html>

²⁶⁵<http://darjeeling.gov.in/darj-tour.html>

²⁶⁶<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

²⁶⁷<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

Government has initiated several measures to promote IT/ITES segment in Tier-I and Tier-II cities in view of the cost considerations. Siliguri in Darjeeling is identified as a satellite location. The district has an incubation Center/IT Park in Siliguri and the sector is expected to witness significant growth over the next decade.

Healthcare coverage in terms of population served per bed at 390 persons per bed is second highest in the state. District has 22 PHCs and 12 CHCs along with 230 Sub centers²⁶⁸. Siliguri in the district is emerging as an alternative destination supported by tourist potential for the growth of medical services. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Darjeeling											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	589	2	708	3	790	0	0	3	384	9	290
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
3	60	22	136	8	169	1	24	4	25	111	1548
Total no of hospitals and beds		167				4723					

Contribution of railways to GDDP has increased at 9.1 percent CAGR and that of roadways and other transport has increased at 11.9 percent CAGR during 2001-02 and 2006-07²⁶⁹. Train services are well developed in the region with the Darjeeling Himalayan Railway running through the district connecting the district to Jalpaiguri²⁷⁰. Bus services and hired vehicles connect Darjeeling with Siliguri. Darjeeling has road connections with Bagdogra, Gangtok and Kathmandu and the neighbouring towns of Kurseong and Kalimpong. National highway 55 passes through the district that connects Siliguri and Darjeeling. NH 31 and 31A connect Sevak, Gangtok, Siliguri and Kalimpong. Nearest airport to the district is at Bagdogra, located 90 kms from Darjeeling.

16.7.3 Workforce Distribution in the district

16.7.3.1 Current Employment Scenario in Darjeeling

Work Participation Rate (WPR) in the district (35.39 percent) is marginally lower than the state average of 36.77 percent. Female participation rates are significantly low considering the both in rural and urban regions of the district.

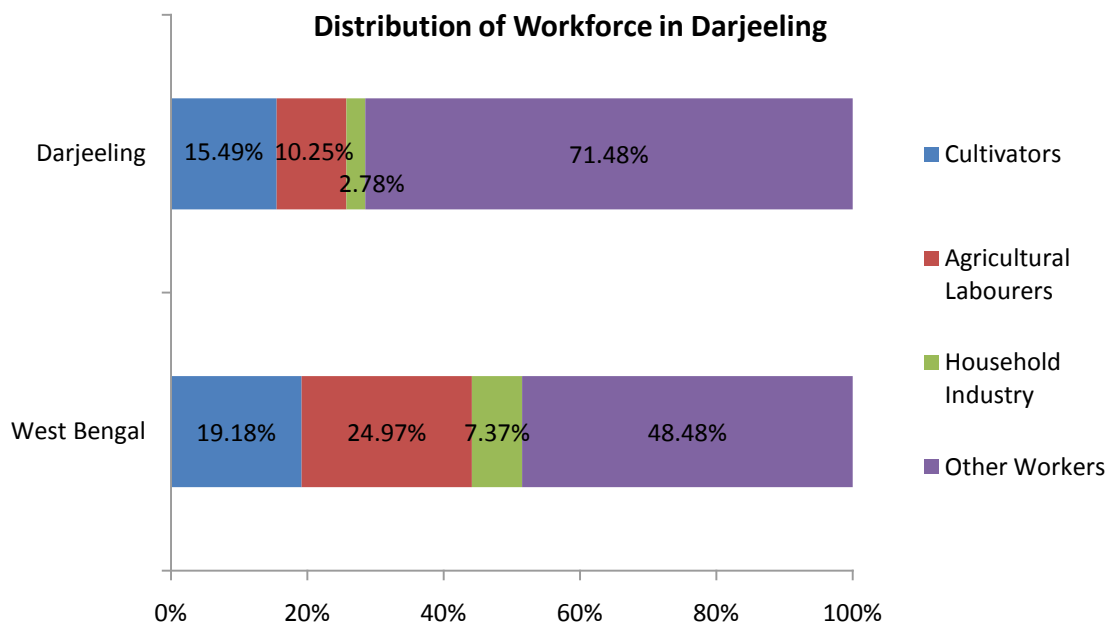
²⁶⁸<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

²⁶⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁷⁰<http://darjeeling.gov.in/track.html>

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Darjeeling - Rural	37.04%	7.33%	6,85,501	2,89,897	3,95,604
Darjeeling - Urban	31.94%	2.07%	3,54,229	1,37,777	2,16,452
Darjeeling	35.39%	5.63%	10,39,730	4,27,674	6,12,056
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Significant workforce is engaged as labourers in Tea Estates as evident from high proportion of 'Other Workers' category. Contribution from Cultivators and Agricultural Laborers is lower than the state average due to limited availability of cultivable land for small-marginal farmers.



Darjeeling has an established migration pattern of influx from northern regions of Nepal for employment in Tea Estates. District has considerable outflow of educated people to urban regions in Uttar Dinajpur, Dakshin Dinajpur and Kolkata for salaried white collar jobs, blue collar service sector jobs in construction & manufacturing and other business opportunities. Migration pattern has a balanced pattern with families migrating in and out of Darjeeling.

16.7.3.2 Estimation of Supply of Manpower in Darjeeling

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Darjeeling is a low human resource growth district adding 3.3 lakh people to working age group during 2012-22. However it being a destination for migration from within the state and across border from Nepal district is not expected to witness significant manpower shortage.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Darjeeling	2010574	1345074	717303	594624	330875
West Bengal	99530929	66586192	34291889	31828200	18481360

16.7.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Darjeeling has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Darjeeling. According to the estimates, in the next 5 years, Darjeeling is expected to witness an incremental manpower requirement of over 1.57 lakhs ²⁷¹ which is expected to normalize to 1.41 lakhs ²⁷² during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	96	NA	NA	96	95	NA	NA	95	191
Animal Husbandry	11673	NA	NA	11673	9727	NA	NA	9727	21400
Pisciculture	36	NA	NA	36	21	NA	NA	21	57
Agro based & Food Processing	231	185	46	462	189	151	38	379	841
Auto/Engineering	370	296	74	740	303	242	61	606	1346
MSME(Manufacturing /Assembling/Processing)	2260	1318	188	3766	1889	1102	157	3148	6914
Repairing & Maintenance	634	370	53	1056	528	308	44	880	1936
Construction	32000	4848	1939	38788	24545	6545	1636	32727	71515
IT&ITES	NA	3870	14130	18000	NA	2580	9420	12000	30000
Healthcare	9295	1138	2068	12500	16853	2062	3749	22664	35164

²⁷¹ KPMG Estimates on Incremental Manpower Requirement

²⁷² KPMG Estimates on Incremental Manpower Requirement

Transportations and Logistics	15609	2257	940	18806	12935	1870	779	15585	34391
Retail	14325	2071	863	17259	10314	1491	621	12427	29686
Hospitality	15694	5605	1121	22420	15233	5440	1088	21761	44181
Communication	3136	1310	234	4680	2598	1086	194	3878	8558
Banking and Financial Services	2701	318	159	3178	2508	295	148	2950	6128
Education and Training	1451	1145	1221	3817	967	764	814	2545	6362

16.7.4 Human Resource Development in the District

16.7.4.1 Current State of Workforce Development

Largely a tourist destination, Darjeeling is also home to a number of institutes of higher educations with a very high penetration of colleges in comparison to state average. North Bengal Medical College and the North Bengal Dental College are amongst the prominent medical institutions in the district. Comparison of higher education infrastructure in Darjeeling with West Bengal is presented in the table.

Category of College	West Bengal	Darjeeling
General Degree	452	21
BEd	129	3
Physical Education	20	–
Law	26	2
Music	2	–
Art	4	–
Engineering & Technology	85	2
Business Management & Hotel Management	42	3
Total	760	31
Density(Colleges per Thousand Population)	0.83	1.68

Accessibility of vocational education in Darjeeling is better than the state average. Siliguri Government Polytechnic at Dabgram is the only polytechnic college in the district. Four Govt ITIs in Darjeeling have a total training capacity of 700.

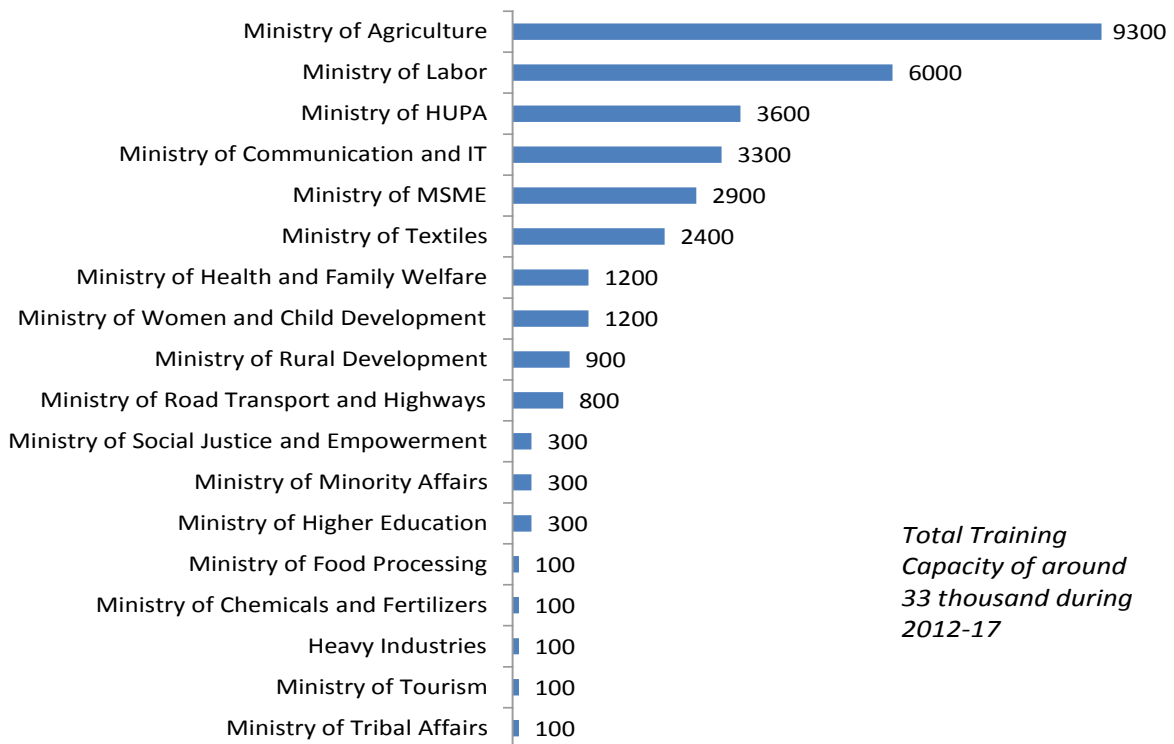
District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Darjeeling	4			4	700			700	0.38

District has 4 employment exchanges with over 1,44,000 live registrations. However, placement rates were very poor with minimal private participation²⁷³.

16.7.4.2 Incremental Skill Training Potential through Government Endowment

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 33 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Ministry of Labour Schemes are expected to contribute to a significant share of the training. Manpower training targets have predominant focus on primary sector considering the low level of industrial development in the district. Private training providers have opportunities in farming and livelihood training programs. While the training mandate under Ministry of Tourism is low, considering the importance of the district from tourism-growth, it offers significant training opportunities.

Potential Training Capacity in Darjeeling during 2012-17



²⁷³ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.7.5 District Specific Recommendations

Darjeeling is a “Tea Production Cluster” with significant workforce of the district engaged directly/ indirectly on plantation/ processing/related activities. This region has opportunity in direct training of manpower to the extent of 1.57 lakhs over the next five years across primarily in unorganized services sector and Agriculture-Allied activities.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Limited potential for absolute employment growth in Tea Plantations leading to displacement of workforce
- High potential for Horticulture and Floriculture
- Industrial growth predominantly constrained to Tea Processing Units
- Key tourism destination in West Bengal with significant potential for tourism development

Considering these factors, the proposed action plan for stakeholders in skill development in Darjeeling district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> • Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Tourism
District Administration Indore	<ul style="list-style-type: none"> • Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Tea Plantations, Tea Processing ○ Horticulture ○ Floriculture
Private Skill Training Providers	<ul style="list-style-type: none"> • Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Tourism
Corporate	<ul style="list-style-type: none"> • Develop Darjeeling into a Tourism Hub • Initiate and support modular employability skill training in collaboration with private players/Government • To create placement linkage opportunities in training institutions

16.8 Skill Gap Assessment of East Medinipore District

16.8.1 Social Profile

16.8.1.1 Demographics

East Midnapore has a population of 50.94 lakhs as per 2011 Census. Significant portion of the total district population lives in rural areas. Rural regions account for 88.35 percent share of East Medinipore population²⁷⁴. District population density at 1076 per sq.km is comparable to state average of 1029 persons per sq. km²⁷⁵. Gender ratio of the district has decreased uniformly across age groups. Adult gender ratio has decreased from 947 females per 1000 males in 2001 to 936 females per 1000 males in 2011 while child (0-6 age group) gender ratio decreased from 951 females per 1000 males to 938 females per 1000 males²⁷⁶ during the same period.

16.8.1.2 Literacy

The district is among high literacy regions in the state with 87.66 percent literacy rate as per 2011 Census in comparison to state average of 77.08 percent²⁷⁷. East Medinipore has a high male literacy of 93.14 percent. Overall literacy rate in the district has improved from 80.16 percent in 2001 to 87.66 percent in 2011 while female literacy rate has witnessed an increase from 70.7 percent to 81.81 percent during the same period. District has 6350²⁷⁸ K12 schools with 16.8 percent²⁷⁹ share of private schools. Dropout rates across primary and upper primary levels are maintained at lower limits in comparison to state averages. Lower penetration of private players and controlled dropout rates indicate successful implementation of mass education programs through Government institutions. Comparison of district school education statistics with overall state details is presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
East Medinipore	403773	390	0.10%	466775	2669	0.57%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.8.2 District Economy

East Medinipore is a rapidly growing economy among the districts of West Bengal. During the period between 2001-02 and 2006-07 district income has witnessed a growth of 19.27 percent²⁸⁰ as against state average of 11.65 percent²⁸¹. Rapid growth in economy is attributed to secondary sector which has grown at a cumulative rate of 43.3 percent during 2001-02 and 2006-07. While the tertiary sector still contributes to major share of district income, contribution from secondary sector is on the rise. Sub-Sector wise growth trends in district economy are presented in the chart.

²⁷⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁷⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁷⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

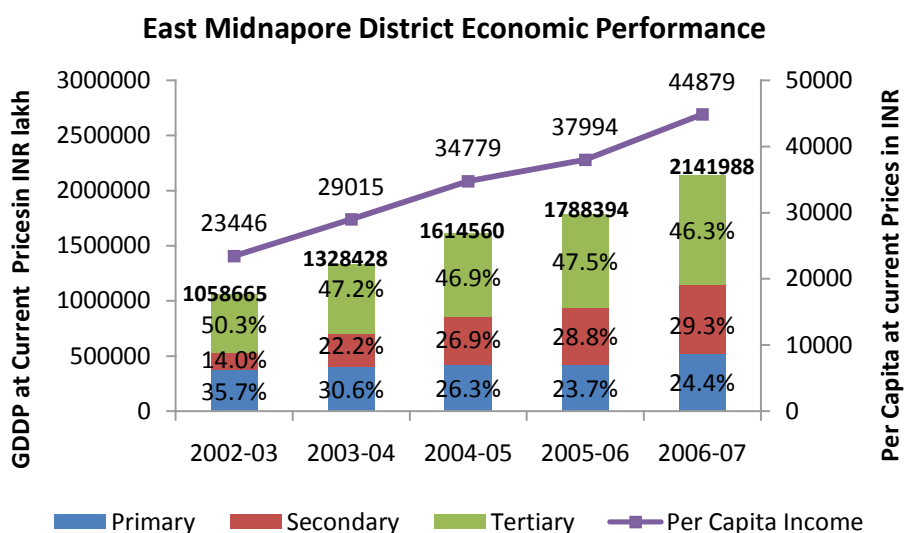
²⁷⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁷⁸<http://www.dise.in/drc.htm>

²⁷⁹<http://www.dise.in/drc.htm>

²⁸⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

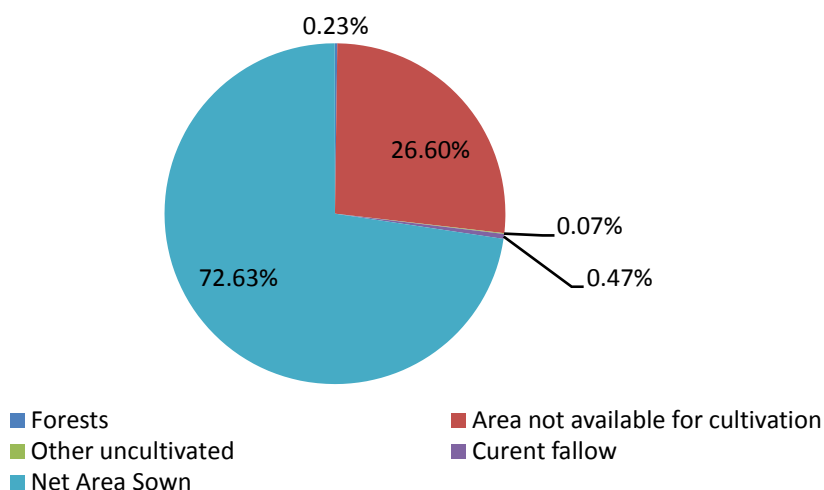
²⁸¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



16.8.2.1 Agriculture and allied sectors

East Medinipur has a significant dependence on agricultural activities for livelihood. Around 72.61 percent of total geographical area of the district is under cultivation. 80.55 percent of the net sown area comes under multiple crop cultivation²⁸². Canal irrigation and tube wells are major sources of irrigation for cultivation in East Medinipore. District land usage distribution is presented in the chart.

East Medinipur - Land use pattern



Rice is a key agricultural crop in the district with around 84.7 percent²⁸³ of net sown under rice cultivation. Wheat, coconut and cashew are other prominent crops in East Medinipore. The district is among key floriculture hubs with the activities prominent in Tamluk sub-division of Purba Medinipur.

Pisciculture is a prominent allied activity in the district due to location advantage with sea coast. District has costal line along Bay of Bengal with Digha and Mandarmani areas as key fishing hubs. Around 75% of the net available area for

²⁸² Directorate of Agriculture, Govt of West Bengal

²⁸³ Directorate of Agriculture, Govt of West Bengal

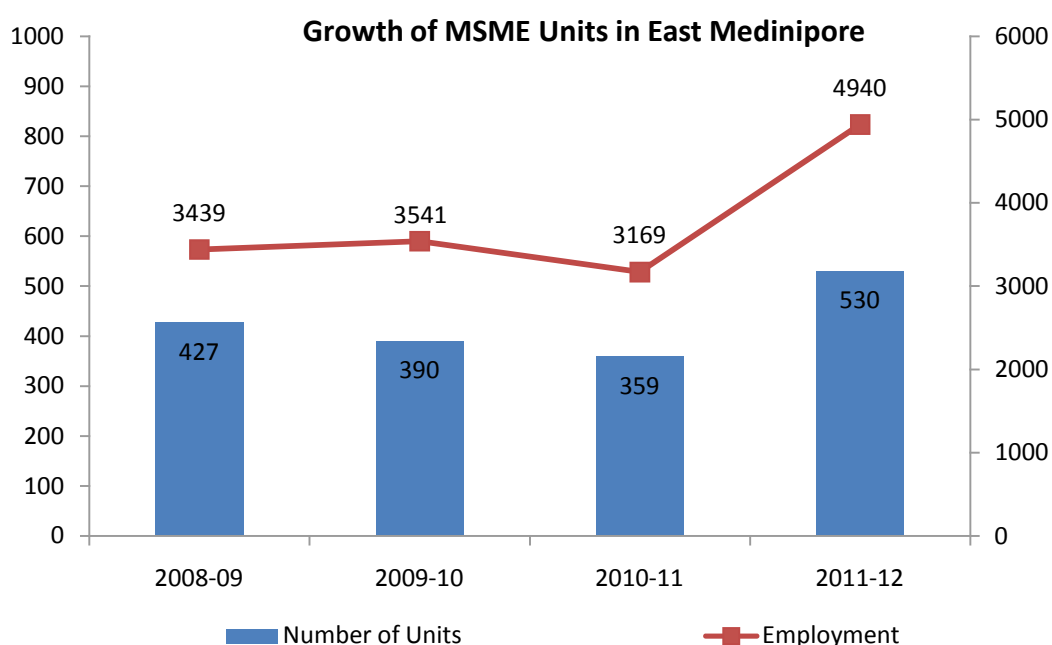
pisciculture has been effectively utilized in East Medinipore. Ramnagar, Sahid Matangini and Haldia are leading blocks with high net area under effective pisciculture²⁸⁴. Shrimp farming has also been developed in the district.

16.8.2.2 Industry

East Medinipore is among the industrially advanced districts in West Bengal with industrially prominent port city Haldia present in the district. Petro and Petro Chemical Industries, Port Based Industries, Chemicals and Steel Based Industries are prominent in the district. Indian Oil Corporation Ltd, Indian Oil Petronas Ltd., Hindusthan Fertiliser Corporation, Tata Chemicals Ltd., Haldia Petrochemicals Ltd., Mitsubishi Chemical Corporation, Hindustan Unilever Limited, Dhunseri Petrochem & Tea Ltd., Shamon Ispat Ltd., Ambo agro Products Ltd., Exide Industries, Consolidated Fibers & Chemicals Ltd, Midnapur Cotton Mills Ltd, Ural India Ltd and MCC PTA India Corp.Pvt.Ltd. are key players present in the district.

Quality industrial infrastructure is supporting the rapid industrialization of Haldia region. Government has proposed to set up a Mega Chemical Industrial Estate and PCPIR project in Nayachar Island, near Haldia. WBIDC along with Tata Powehas set up a Mega Coke Oven Plant under PPP mode. As per 2011 estimates there are 389 registered factories operating in East & West Medinipore districts providing average daily employment of 45,813.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 1,706 units generating additional employment of over 15,089 during the period. Cashew Nut Processing, Horn Processing are prominent MSME units operating in the district. Employment growth trends in MSME segment are presented in the chart.



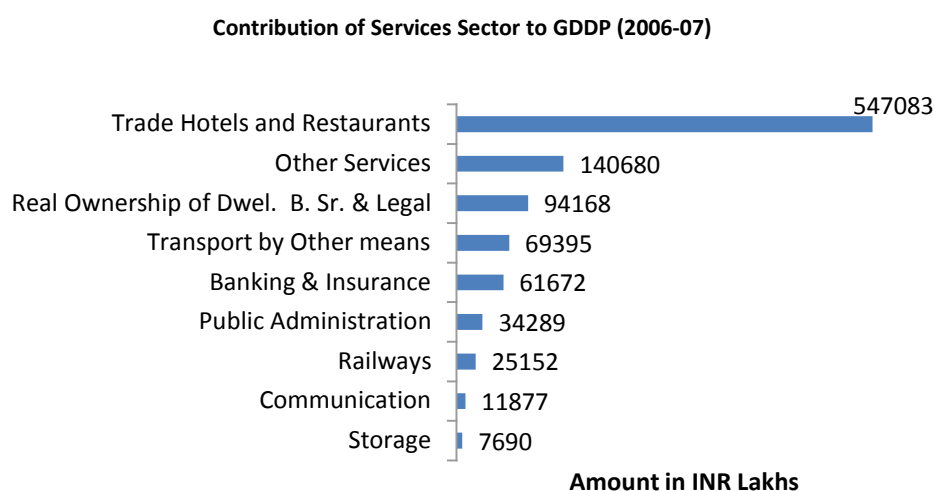
Based on discussions with District Industries Center, following potential MSME growth clusters are identified in East Medinipore district.

Existing Clusters	Clusters Identified for Promotion
(i) Cashew Nut Processing (ii) Sea shell, (iii) Horn Products,	Cashew Nut Processing

²⁸⁴ Directorate of Pisciculture, Govt of West Bengal

16.8.2.3 Services Sector

Service sector has a key role in the economy of East Medinipore. This sector has contributed to 46.3 percent²⁸⁵ of GDDP in 2006-07 witnessing a growth of 16.9 percent CAGR in the period between 2001-02 and 2006-07. Growth of manufacturing sector in Haldia region has created demand for allied service sectors like hospitality and security services. Sub sector wise breakup of services income is presented in the chart.



Trade and hospitality industry of East Midnapore witnessed a significantly high growth of 24.2 percent²⁸⁶ CAGR during 2001-02 and 2006-07 riding on the manufacturing sector growth.

The district has some of the prominent tourist destination in West Bengal. Digha²⁸⁷ is a popular seaside resort town in the state of West Bengal. Other major tourist attractions are Tamluk, Mandarmani, Panskura, Contai, Chandipur and Haldia²⁸⁸. Junput is a popular spot for fishing located around 40 kilometers from Digha.

The district has least penetration of banking and financial services measured as a percentage of GDDP at 2.88 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of the district has grown at 3.21 percent CAGR between 2006 and 2011²⁸⁹. Bank credit witnessed a growth of 18.09 percent CAGR and bank-deposits, 22.76 percent CAGR in the past five years²⁹⁰. Low penetration of banking and financial services would drive significant growth of the sector in line with inclusion targets over the next decade.

Healthcare coverage in terms of population served per bed at 1,338 persons per bed is significantly low in comparison to state average of 851 persons per bed. District has 53 PHCs and 25 CHCs along with 706 Sub centers²⁹¹. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

²⁸⁵ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁸⁶ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁸⁷ <http://purbamedinipur.gov.in/TORISM-NEW.htm>

²⁸⁸ <http://purbamedinipur.gov.in/TORISM-NEW.htm>

²⁸⁹ <http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

²⁹⁰ <http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

²⁹¹ <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in East Medinipore											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	500	3	650	1	50	0	0	16	480
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
9	110	53	377	0	0	0	0	1	47	158	1566
Total no of hospitals and beds		242					3780				

Contribution of railways to GDDP has grown at 8.1 percent CAGR and that of roadways and other transport has increased by 31.9 percent CAGR over the past 5 years²⁹². NH 6 and NH 41 pass through the district. NH 6 connects district to Gujarat and Maharashtra, while NH 41 connects Kolaghat in East Midnapore to Haldia in East Midnapore. East Medinipore district has better connectivity to all important places in the country as it falls on the Howrah-Adra and Howrah- Purulia train routes. Haldia port is a key sea logistics hub in the district witnessing significant activity next to Kolkata port in the state.

16.8.3 Workforce Distribution in the district

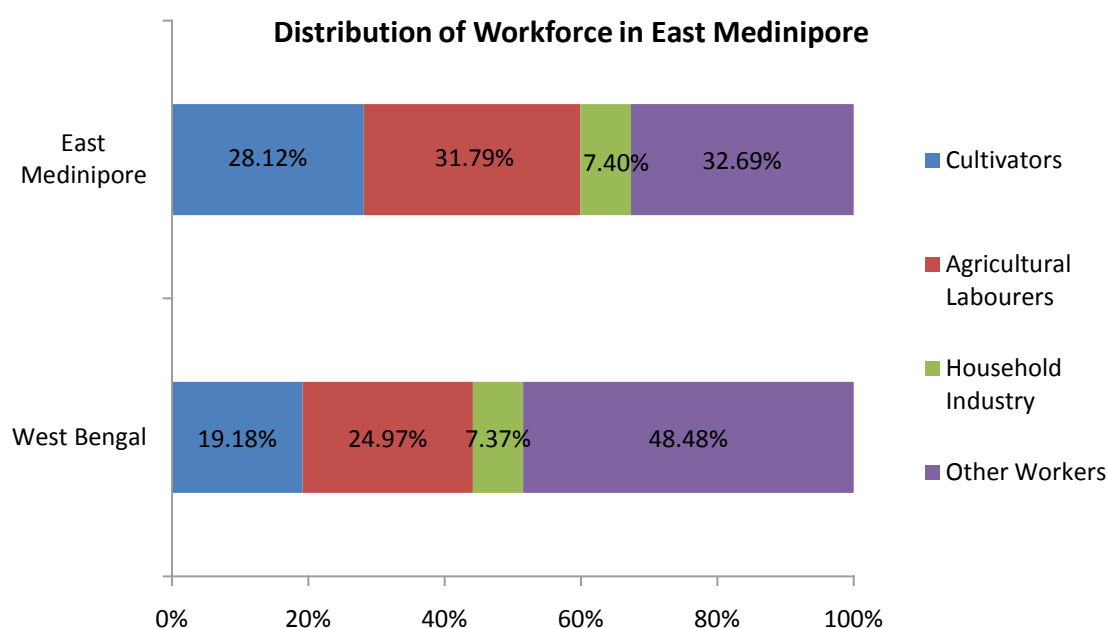
16.8.3.1 Current Employment Scenario in East Medinipore

Work Participation Rate (WPR) in the district (39.03 percent) is higher than the state average of 36.77 percent. High proportion of rural population working in agriculture depending on agriculture is a key reason for greater participation rates. However, considering the large population of the district there is significant opportunity for employment generation through adequate training.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
East Medinipore -Rural	39.94%	13.7%	23,91,016	9,16,327	14,74,689
East Medinipore -Urban	31.01%	3.95%	3,13,250	1,15,956	1,97,294
East Medinipore	39.03%	12.70%	27,04,266	10,32,283	16,71,983
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

²⁹²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Workforce distribution in East Medinipore is similar to the overall state average. Around 60 percent of the total population is dependent on agriculture with a high share of marginal farmers.



Migration pattern in the district is region specific with certain regions being self sustainable for employment. Blocks like Ramnagar have patterns of regular employment due to proximity to sea beaches and mandies while other blocks like Panskura have low employment opportunities leading to outward migration from these regions.

16.8.3.2 Estimation of Supply of Manpower in East Medinipore

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. East Medinipore is a moderately high human resource growth district adding 10.21 lakh people to working age group during 2012-22. Addressing low level of employability in blocks like Panjura is a challenge.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
East Medinipore	5587778	3738224	2212380	1834003	1021307
West Bengal	99530929	66586192	34291889	31828200	18481360

16.8.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of East Medinipore has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in East

Medinipore. According to the estimates, in the next 5 years, East Medinipore is expected to witness an incremental manpower requirement of over 3.32 lakhs ²⁹³ which is expected to normalize to 2.72 lakhs ²⁹⁴ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	109	NA	NA	109	106	NA	NA	106	215
Animal Husbandry	19320	NA	NA	19320	16100	NA	NA	16100	35420
Pisciculture	563	NA	NA	563	322	NA	NA	322	885
Agro based & Food Processing	713	570	143	1425	583	467	117	1167	2592
Iron & Steel	855	684	171	1710	700	560	140	1400	3110
Jute & Textiles	238	190	48	475	194	156	39	389	864
Auto/Engineering	950	760	190	1900	778	622	156	1555	3455
Electrical & Electronics	570	456	114	1140	467	373	93	933	2073
Drugs, Chemical & Petrochemicals	2850	2280	570	5700	2333	1867	467	4666	10366
Region Specific Industries	1188	950	238	2375	972	778	194	1944	4319
MSME (Manufacturing /Assembling/Processing)	6074	3543	506	10123	5077	2961	423	8461	18584
Repairing & Maintenance	1703	994	142	2839	1419	828	118	2366	5205
Construction	39792	6029	2412	48233	30522	8139	2035	40696	88929
IT&ITES		1161	4239	5400		774	2826	3600	9000
Healthcare	9450	1157	2102	12709	13853	1695	3081	18630	31339
Transportations and Logistics	25168	3639	1516	30323	20857	3015	1256	25129	55452

²⁹³ KPMG Estimates on Incremental Manpower Requirement

²⁹⁴ KPMG Estimates on Incremental Manpower Requirement

Retail	119818	17323	7218	144359	86269	12473	5197	103938	248297
Hospitality	21993	7855	1571	31418	21346	7624	1525	30495	61913
Communication	2360	986	176	3523	1956	817	146	2919	6442
Banking and Financial Services	4472	526	263	5261	4152	488	244	4884	10145
Education and Training	389	307	2871	3566	259	204	1914	2378	5944

16.8.4 Human Resource Development Scenario in the District

16.8.4.1 Current State of Workforce Development

Concentration of higher education infrastructure in East Medinipore is marginally lower than the state average. Comparison of higher education infrastructure in East Medinipore with West Bengal is presented in the table.

Category of College	West Bengal	Purba Midnapore
General Degree	452	20(1G)
BEd	129	11
Physical Education	20	2
Law	26	1
Music	2	–
Art	4	1
Engineering & Technology	85	2
Business Management & Hotel Management	42	1
Total	760	38
Density(Colleges per Thousand Population)	0.83	0.75

Accessibility of vocational education in East Medinipore is marginally better than the state average. Contai Polytechnic, Dr. Meghnad Saha Institute of Technology and Global Institute of Science & Technology are three polytechnic institutes in this region. Three Govt ITI s, one ITC and four private ITI s are established in the district have a total training capacity of 1136. Details of vocational education infrastructure in East Medinipore is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Purba Medinipore	3	1	4	8	780	56	300	1136	0.22

Four employment exchanges functioning in the district have a total of 3,50,000 live registrations²⁹⁵. However, placement rates were very poor with minimal private participation²⁹⁶.

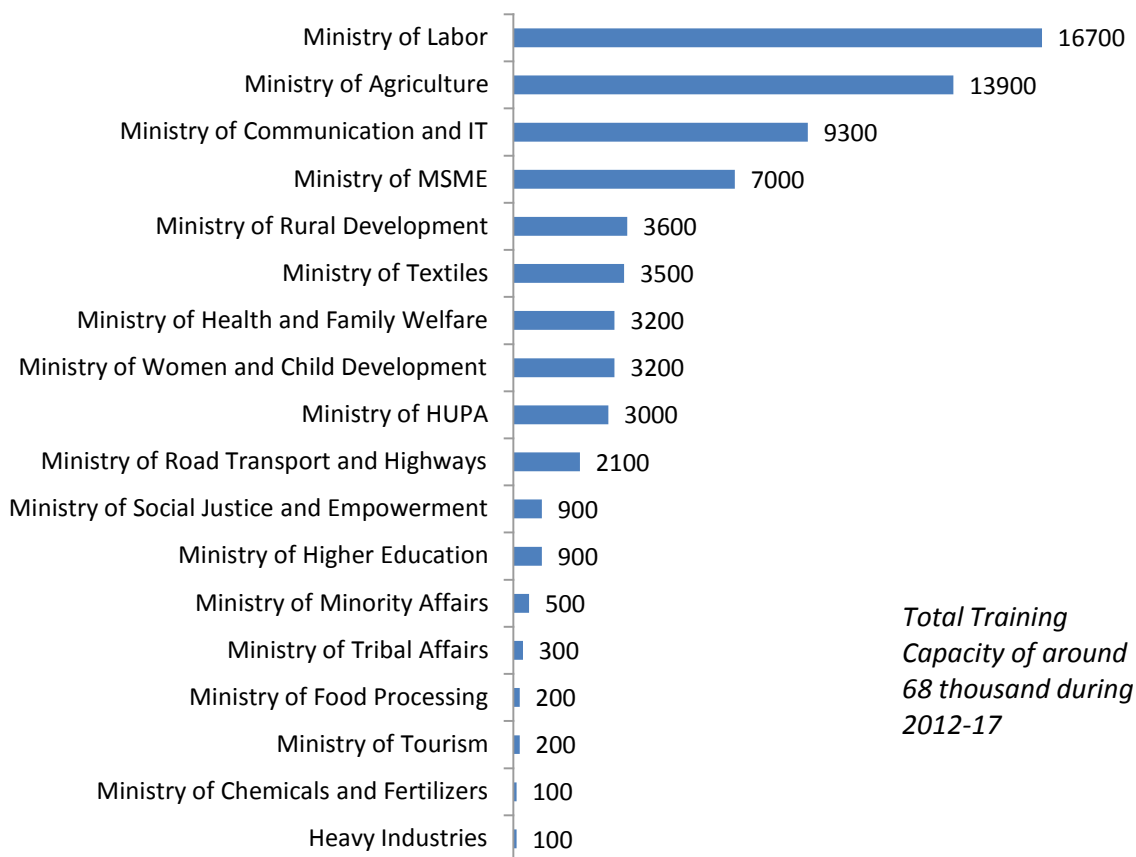
16.8.4.2 Incremental Training Capacity in the District

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 68 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Ministry of MSME Schemes are expected to contribute to a significant share of the secondary sector training while Ministry of agriculture has considerable training mandate within the district. Manpower training targets have significant focus on manufacturing sector considering the industrial development specifically in Haldia. Private training providers have opportunities in training manpower for port based industries requiring higher order skills. Manpower requirement for port industries is specific to the district.

²⁹⁵ 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

²⁹⁶ 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in East Medinipore during 2012 -17



16.8.5 District Specific Recommendations

East Medinipore is among the industrially advanced districts in West Bengal with port facilities in Haldia promising great potential for growth of the district into a Sea Logistics Hub. Region has opportunity in direct training of manpower to the extent of 3.33 lakhs over the next five years across primarily in unorganized services sector, Construction and manufacturing

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Huge potential for the growth of Petro and Petro Chemical, Port Based Industries, Chemicals and Steel Industries
- Increasing demand for workforce in port based industries specific to the district
- Construction is a key activity with large demand for manpower
- Cashew Nut Processing, Sea shell, Horn Products are key MSME segments in the district

Considering these factors, the proposed action plan for stakeholders in skill development in East Medinipore district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Port Based Industries
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry ○ Cashew Nut Processing, Sea shell, Horn Products
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Port Based Industries ○ Chemical & Petro Chemical ○ Iron & Steel
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Port Based Industries ○ Transportation & Logistics ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.9 Skill Gap Assessment of Hooghly District

16.9.1 Social Profile

16.9.1.1 Demographics

Hooghly is among the highly populated districts in West Bengal. As per 2011 Census, The district has a population of 55.2 lakhs with a 38.62 percent share of urban population²⁹⁷. The district is third densest districts in the state with a concentration of 1753 persons per sq.km in comparison to state average of 1029²⁹⁸ persons per sq.km. While the adult gender ratio of district has increased from 947 females per 1000 males in 2001 to 958 females per 1000 males in 2011 there has been a decrease in the child (0-6 age group) gender ratio from 951 females per 1000 males to 946 females per 1000 males²⁹⁹ during the same period. Reserved categories account for 27.8³⁰⁰ percent of total district population.

16.9.1.2 Literacy

Hooghly has a higher literacy rate of 82.55 percent in comparison to state average of 77.08 percent³⁰¹ as per 20 Census. The district has 4425³⁰² K-12 institutions with 91.73 percent³⁰³ share of Government schools. Comparison of district drop-out rates across primary and upper primary levels with state averages indicate significant achievements of mass education programs over the recent years resulting in low dropouts. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Hooghly	457820	1599	0.35%	529254	1150	0.22%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.9.2 District Economy

Hooghly is a key economy in West Bengal. District has registered a marginally lower cumulative growth rate of 10.41 percent³⁰⁴ during the period between 2001-02 and 2006-07 as compared to 11.65 percent³⁰⁵ of overall state average. Hooghly is predominantly a services driven economy witnessing a declining contribution from primary sector over the recent years. District Per Capita Income, INR 32, 343³⁰⁶ is marginally higher than state average of INR 31,003³⁰⁷ in 2006-07. Sub-Sector wise district income growth trends are presented in the chart.

²⁹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁰⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁰¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁰²<http://www.dise.in/drc.htm>

³⁰³<http://www.dise.in/drc.htm>

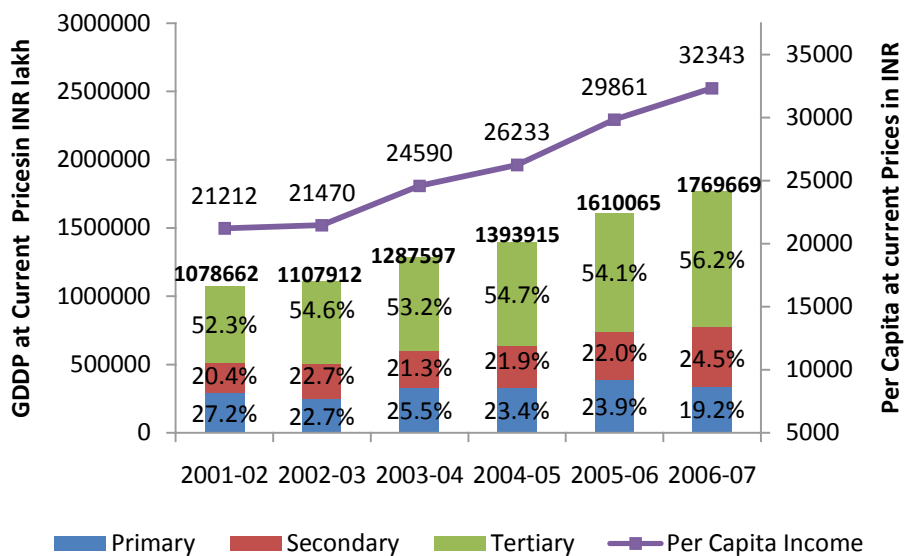
³⁰⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁰⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁰⁶<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁰⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

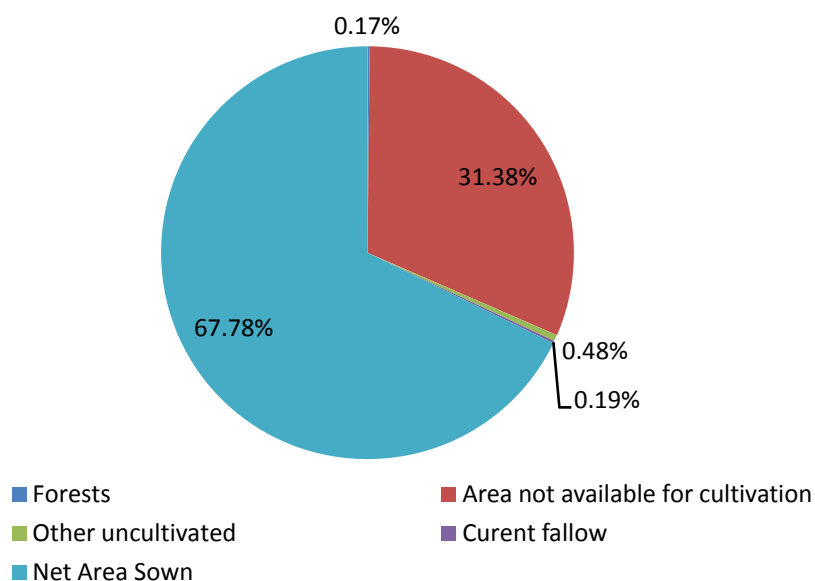
Hooghly District Economic Performance



16.9.2.1 Agriculture and allied sectors

Agricultural and Allied activities are a key source of livelihood for Hooghly. However, limited cultivable land proportion (68.5 percent³⁰⁸ of its total geographical area) has resulted in constrained growth of cultivation in the district. Hooghly River is a major source of irrigation for agricultural activities in the district. District land usage distribution is presented in the chart.

Hooghly - Land use pattern



³⁰⁸ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

Rice is a key crop grown in the district with around 55 percent³⁰⁹ of net sown area under rice cultivation. The district has witnessed stable rice production over the years due to availability of adequate irrigation facilities from the rivers. Jute, sesamum and potato are other prominent crops grown in Hooghly³¹⁰. Production of sesamum has registered considerable growth during the recent years. Jute is an important crop sustaining the growth of Jute mills in the district.

Climatic and irrigation facilities in Hooghly support fruits and vegetable cultivation. Cabbage, cauliflower, radish, peas, brinjal, okra, onions, mango, banana and papaya are key horticulture crops grown in the district. Hooghly also has significant floriculture activity.

Pisciculture is a key allied activity in the district with an effective area of 16, 376 ha under these activities employing 1.33 lakh people. Dairy is another prominent rural activity supplementing agrarian family income in Hooghly.

Agricultural production in the district has achieved high yield per hectare in comparison to other districts owing to increasing consumption of NPK fertilizers. However there is an increasing need to promote sustainable farming methods and micro-nutrients usage in the district.

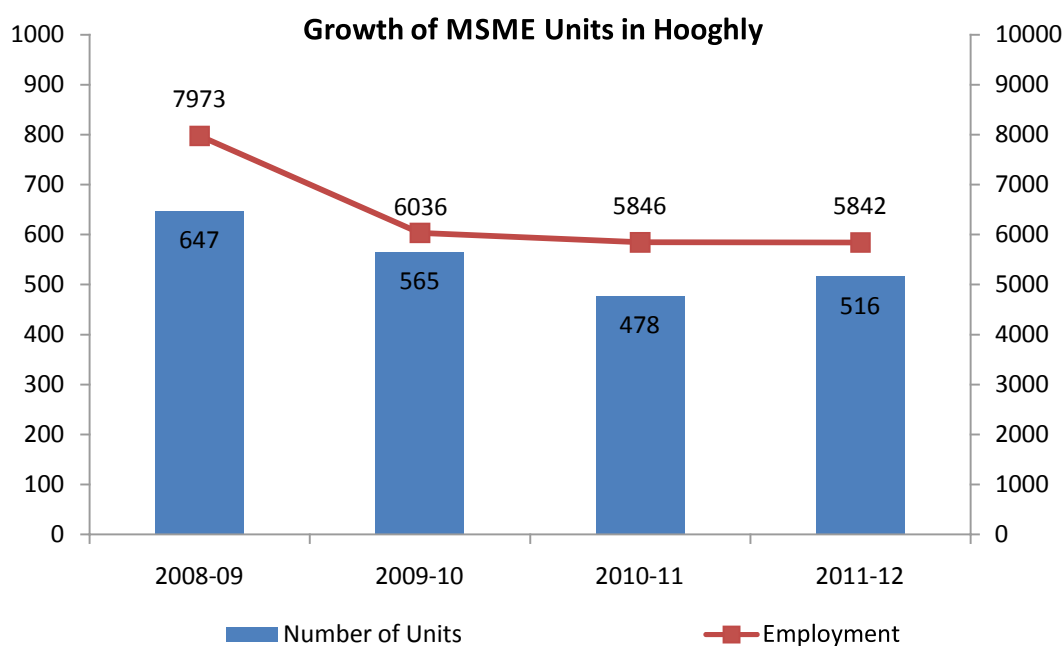
16.9.2.2 Industry

Industrial development has historic roots with the city being a destination for trade and merchant from pre independence days. Textile, Steel & Alloy Castings are prominent in the district. ICI India Ltd, India Rayon & Industries Ltd, India Foils Ltd, Hindustan Development Corp.Ltd, Pacific Cotspin Ltd, Bhusan Industries Ltd and Hindustan National Glass & Industries Ltd are key players present in the district. The dDistrict has a number of industrial complexes including one of the largest car manufacturing plants in India, the 'Hindustan Motors' plant located in Uttarpara. Large number of jute industry and mills are located along the banks of the river Hooghly in Tribeni, Bhadreswar, Champdani and Sreerampur. As per 2011 estimates there are 752 registered factories operating in Hooghly district providing average daily employment of 1, 03,547.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 2,206 units generating additional employment of over 25,697 during the period. Brass and Bell Metal, HDPE Rope are prominent MSME units operating in the district. Employment growth trends in MSME segment are presented in the chart.

³⁰⁹ Directorate of Agriculture, Govt of West Bengal

³¹⁰ Directorate of Agriculture, Govt of West Bengal



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Hooghly district.

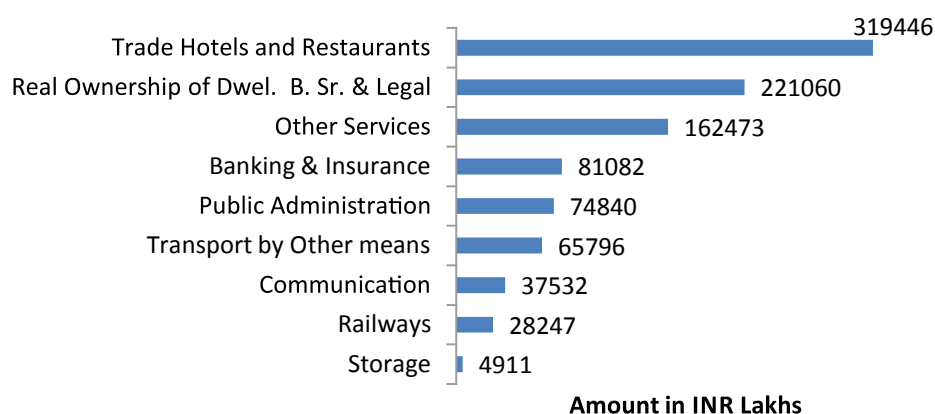
Existing Clusters	Clusters Identified for Promotion
(i) HDPE Rope, (ii) Brass and Bell Metal, (iii) Silk printing	Brass and Bell Metal

16.9.2.3 Services Sector

Services sector has a key role in the district economy contributing 56.2 percent³¹¹ to GDDP in the year 2006-07 witnessing a growth of 12 percent CAGR in the period between 2001-02 and 2006-07. Trade & hospitality, banking & insurance and legal advice are prominent tertiary activities in Hooghly. Sub sector wise breakup of services income is presented in the chart.

³¹¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Contribution of Services Sector to GDDP (2006-07)



Tourism & hospitality is dependent on religious places like Bandel church and Tarakeswar. The relics of the Portuguese, Dutch and English stand testimony to the multi-ethnic culture of the land.

Hooghly has marginally lower penetration of banking and financial services measured as a percentage of GDDP at 4.58 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. The number of bank branches in the district has grown by 4.09 percent CAGR between 2006 and 2011³¹². Bank credit given has grown at 16.16 percent CAGR and bank-deposits had a growth of 24.65 percent CAGR over the last five years³¹³. Low penetration of banking and financial services would drive considerable growth over the next decade in line with inclusion targets.

Healthcare coverage In terms of population served per bed at 922 persons per bed is comparable to state average of 851 persons per bed. District has 59 PHCs and 18 CHCs along with 660 Sub centers³¹⁴. Hooghly has significant potential for the growth of private healthcare providers considering the low penetration levels of segment in healthcare infrastructure. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Hooghly											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	650	3	766	1	204	1	55	17	590
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds

³¹²<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³¹³<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³¹⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

1	10	59	450	7	817	2	193	2	34	157	2216
Total no of hospitals and beds		251					5985				

Contribution of railways to GDDP has increased by 8.4 percent CAGR and that of roadways and other transport has increased by 15 percent CAGR over the past 5 years³¹⁵. Major highways running through the district are NH 2, NH 6 and Grand Trunk Road, connecting the district to Delhi and Hazira. Railway network of Hooghly is very developed with 4 major junctions with Bandel being the key railway junction. Hooghly has accessibility through river transport facilities.

16.9.3 Workforce Distribution in the district

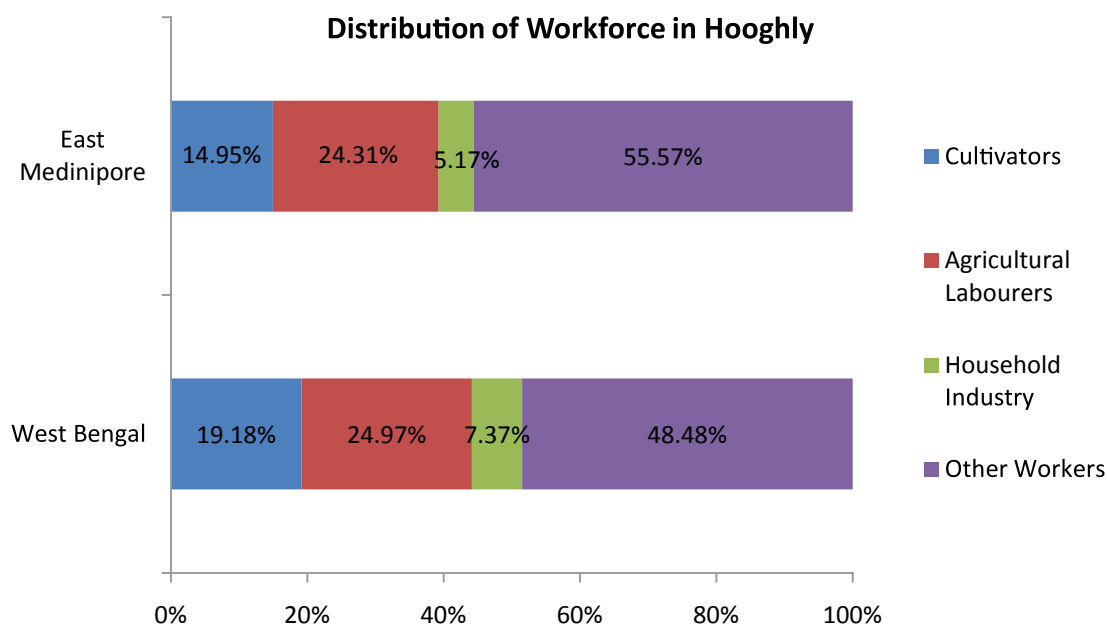
16.9.3.1 Current Employment Scenario in Hooghly

Work Participation Rate (WPR) in the district (36.88 percent) is marginally lower than the state average of 36.77 percent. Gender wise workforce participation rate reveals that there is wide disparity in the access to employment for women in the district compared to the state average as evident from the high proportion of Female Non-Workers. While blocks like Goghat II have considerably high female participation Pursura block has the least female worker participation rate. Further, female workforce participation rate of urban Hooghly is much lower than the rural Hooghly explaining the existing social stigma of restricting women to participate in outside work. Current employment patterns indicate a need to enhance efforts in improving the situation through female centric employment generation programs in the district.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Hooghly -Rural	38.59%	8.42%	20,59,868	7,18,246	13,41,622
Hooghly - Urban	33.48%	2.9%	11,22,621	4,08,169	7,14,452
Hooghly	36.88%	6.57%	31,82,489	11,26,415	20,56,074
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

More than half of the total district work force is categorized under 'Other Workers' segment consisting of services and industry based employment mostly unorganized. Availability of fertile land in the district indicates better livelihood opportunities across three economic sectors in Hooghly making it a preferred destination for migration from other districts.

³¹⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



District attracts significant migrant population from neighbouring districts as well as other states for activities ranging from agriculture to jewellery work. Brickfields in Hooghly are a key migration destination. During paddy harvesting and potato cultivation seasons there is an influx of migratory agricultural workers to Tarakeswar, Singur and Pandua blocks from adjoining districts of Bankura. Jewellery workers from western coast of Gujarat and Maharashtra migrate to Chanditala, Singur and Haripal blocks. Considering the demand for skilled workers in Jewellery Industry, district population can be adequately trained to explore additional employment opportunities within Hooghly. Even workforce from Kolkata. Burdhan, Murshidabad, Nadia and Howrah districts migrate to Hooghly indicating the high preference for migration into the district considering varied livelihood opportunities available at both urban and rural regions of the district.

16.9.3.2 Estimation of Supply of Manpower in Hooghly

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Hooghly is a moderately low human resource growth district adding 9.64 lakh people to working age group during 2012-22. District being a favorite destination for employment related migration considering varied opportunities available in the district, availability of manpower may not be a challenge for the growth of industry.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Hooghly	5851581	3914708	2180845	1807860	964348
West Bengal	99530929	66586192	34291889	31828200	18481360

16.9.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Hooghly has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Hooghly. According to the estimates, in the next 5 years, Hooghly is expected to witness an incremental manpower requirement of over 3.09 lakhs ³¹⁶ which is expected to normalize to 2.67 lakhs ³¹⁷ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Animal Husbandry	38077	NA	NA	38077	31731	NA	NA	31731	69808
Pisciculture	4595	NA	NA	4595	2626	NA	NA	2626	7221
Agro based & Food Processing	2834	2267	567	5669	2320	1856	464	4641	10310
Iron & Steel	2362	1890	472	4724	1934	1547	387	3867	8591
Jute & Textiles	1890	1512	378	3779	1547	1238	309	3094	6873
Auto/Engineering	945	756	189	1890	773	619	155	1547	3437
Electrical & Electronics	378	302	76	756	309	248	62	619	1375
Drugs, Chemical & Petrochemicals	1417	1134	283	2834	1160	928	232	2320	5154
Rubber & Plastic Products	567	453	113	1134	464	371	93	928	2062
MSME (Manufacturing /Assembling/Processing)	10344	6034	862	17241	8646	5043	720	14410	31651
Repairing & Maintenance	2901	1692	242	4834	2417	1410	201	4029	8863
Construction	56847	8613	3445	68906	43604	11628	2907	58138	127044
Healthcare	726	89	162	977	14045	1719	3124	18888	19865
Transportations and	24360	3522	1467	29349	20187	2919	1216	24322	53671

³¹⁶ KPMG Estimates on Incremental Manpower Requirement

³¹⁷ KPMG Estimates on Incremental Manpower Requirement

Logistics									
Retail	69963	10115	4215	84292	50373	7283	3035	60690	144982
Hospitality	12842	4586	917	18345	12464	4452	890	17806	36151
Communication	7458	3117	557	11132	6181	2583	461	9225	20357
Banking and Financial Services	5879	692	346	6916	5458	642	321	6421	13337
Education and Training	349	276	3255	3880	233	184	2170	2587	6467

16.9.4 Human Resource Development Scenario in the District

16.9.4.1 Current State of Workforce Development

Concentration of higher education institutes in Hoohly is on par with the state average. District has some famous colleges like the Hooghly Mohsin College and the Chandannagore College. Comparison of higher education infrastructure in Hooghly with West Bengal is presented in the table.

Category of College	West Bengal	Hooghly
General Degree	452	28
BEd	129	7
Physical Education	20	1
Law	26	1
Music	2	–
Art	4	–
Engineering & Technology	85	9
Business Management& Hotel Management	42	2
Total	760	48
Density(Colleges per Thousand Population)	0.83	0.87

However, accessibility of vocational education in the district is marginally lower than the state average. Hooghly has six polytechnic colleges including Hooghly Institute of Technology, Saroj Mohan Institute of Technology and Technique Polytechnic Institute. Four Govt ITI s established in the district have a total training capacity of 908. Details of vocational education infrastructure in Hooghly is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Hooghly	4			4	908			908	0.16

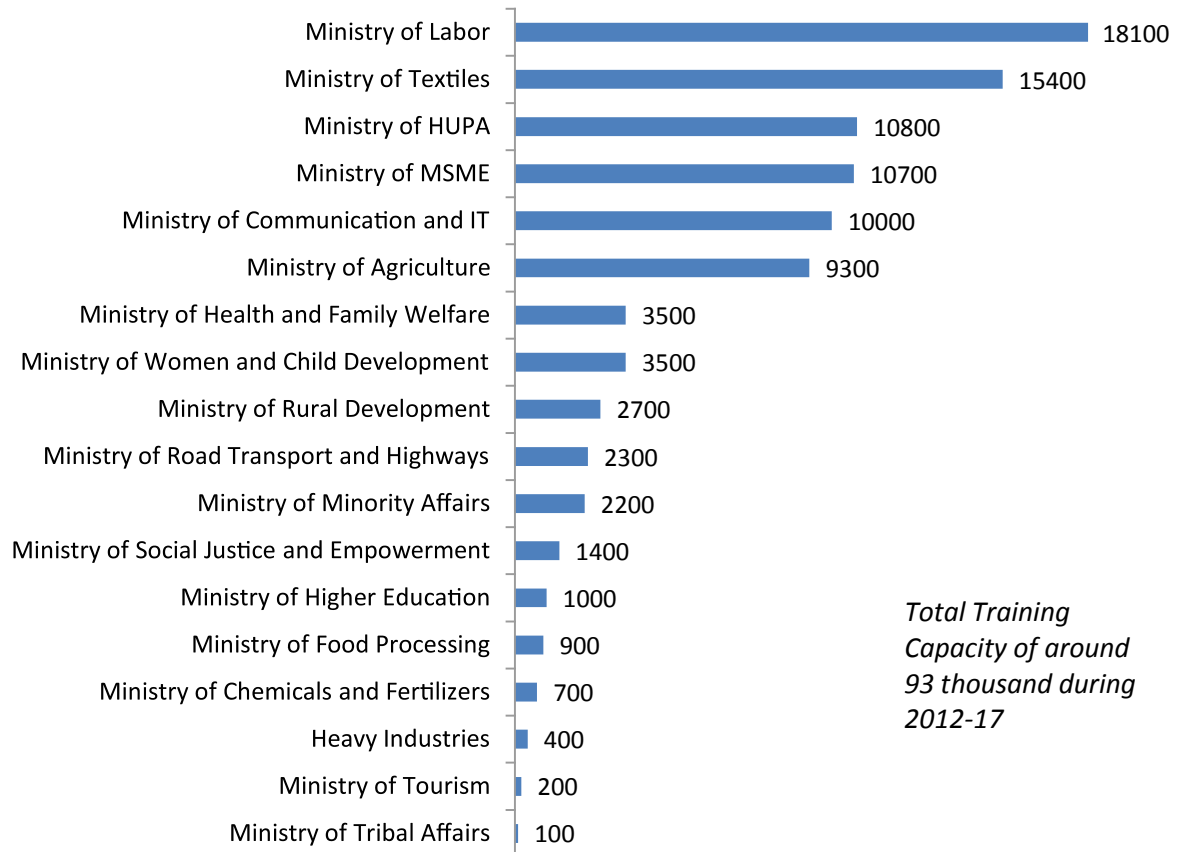
Four employment exchanges functioning in the district have a live register of close to 4,50,000. However, placement rates were very poor with minimal private participation³¹⁸.

16.9.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 93 thousand people in total can be trained incrementally during the five year period of 2012-17. Schemes targeting all economic sectors have significant training mandate in the district. Within manufacturing sector, manpower training targets have significant focus on Jute & Textile sector considering the importance of district for overall sector growth in West Bengal. Private training providers have significant opportunities in skilling as well as up skilling in Jute & Textile sector.

³¹⁸ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in Hooghly during 2012 -17



16.9.5 District Specific Recommendations

Hooghly has opportunity in direct training of manpower to the extent of 3 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Huge potential for the growth of Animal Husbandry activities
- Increasing demand for workforce in Agro Processing, Jute & Textile and Chemical Industries
- Construction is a key activity with large demand for manpower
- HDPE Rope, Brass and Bell Metal, Silk printing are key MSME activities in the district

Considering these factors, the proposed action plan for stakeholders in skill development in Hooghly district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Agro Processing
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry ○ HDPE Rope, Brass and Bell Metal, Silk printing
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Agro Processing ○ Chemical & Petro Chemical
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Agro Processing ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.10 Skill Gap Assessment of Howrah District

16.10.1 Social Profile

16.10.1.1 Demographics

Howrah is predominantly urban district with a population of 48.4 lakhs as per 201 Census. Rural regions account for only 36.7 percent total district population³¹⁹. Convergence of Kolkata Municipal Corporation with significant geographical area of the district is a key reason for increasing urban share in population. Howrah is the second most densely populated concentrated district in West Bengal with a population density of 3300 persons per sq.km in comparison to state average of 1029³²⁰ persons per sq.km. Improving social and physical infrastructure facilities in the district is leading to influx of migrants to the district for employment in state capital region. Gender ratio of the district has increased uniformly across age groups. Adult gender ratio has increased from 906 females per 1000 males in 2001 to 935 females per 1000 males in 2011 while the child (0-6 age group) gender ratio increased from 956 females per 1000 males to 964 females per 1000 males³²¹ during the same period. District has a lower share of reserved population at 15.86³²² of total population in comparison to state average of 28.52 percent.

16.10.1.2 Literacy

Howrah is among high literacy districts in the state with a literacy rate of 83.85 percent in comparison to state average of 77.08 percent³²³ as per 2011 Census. Influx of literate migrants is a key reason for improving literacy rates. District has 3605³²⁴ K-12 schools with 84.47 percent³²⁵ share of Government schools. Participation of private schools is mostly limited to regions urban regions under Kolkata Municipal Corporation. Controlled dropout rates across primary and upper primary levels indicate significant achievement of mass education programs particularly targeting migrant labour communities. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Howrah	388236	1668	0.43%	448812	5307	1.18%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.10.2 District Economy

Howrah is a key industrial district in West Bengal. District economy has witnessed a marginally higher cumulative growth rate of 12.56 percent³²⁶ in the period between 2001-02 and 2006-07 as against state average of 11.65 percent³²⁷ during the same period. Tertiary sector constitutes nearly two thirds of the district economy. Over the recent years economy has

³¹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³²⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³²¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³²²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³²³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

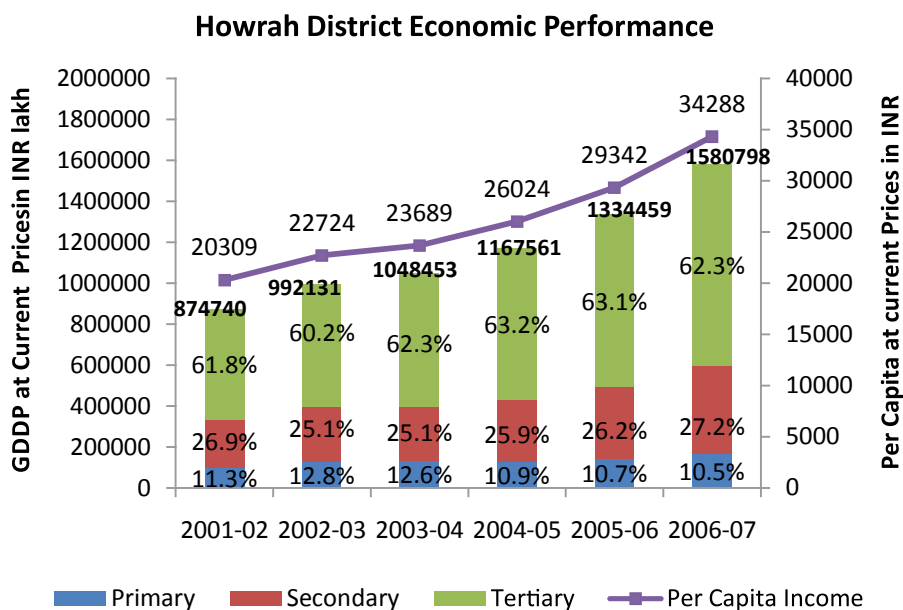
³²⁴<http://www.dise.in/drc.htm>

³²⁵<http://www.dise.in/drc.htm>

³²⁶<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³²⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

witnessed a marginal increase in contribution from secondary sector. Sub-Sector wise district income growth trends are presented in the chart.

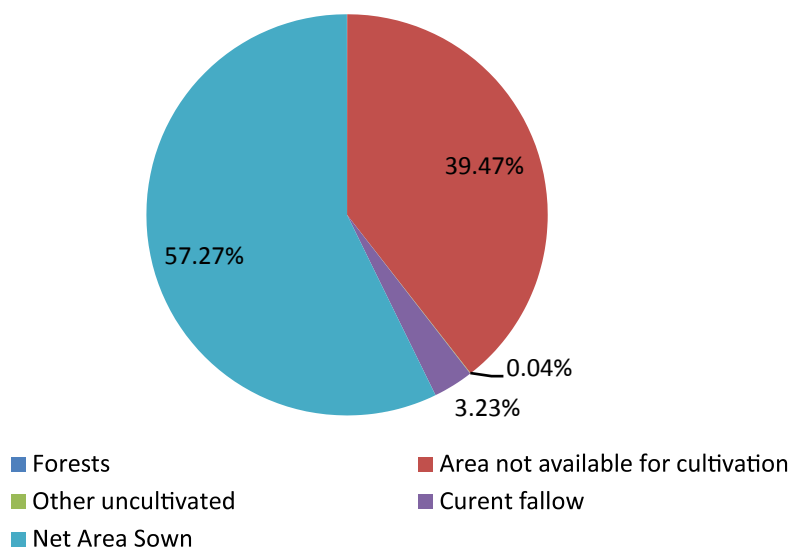


16.10.2.1 Agriculture and allied sectors

Agricultural activities in Howrah are constrained by limited availability of cultivable land. Increasing industrial activity in the district is leading to significant reduction in cultivation. District has 57.44 percent of total geographical area under cultivation as of 2009-10. As high as 98.7 percent of net sown area is expose to multiple cropping³²⁸. River Ganges flowing through the district is main source of irrigation for Howrah. Monsoon seasons see a large amount of flooding and water stagnation in the district. Farmers utilize this opportunity by engaging in ‘tide-based agriculture’, where both agricultural products as well as fishes are considered as a part of their year-round plan. District land usage distribution is presented in the chart.

³²⁸ Directorate of Agriculture, Govt of West Bengal

Howrah - Land use pattern



Rice is the key agricultural crop in the district accounting for 72.02 percent of net sown area as of 2009-10³²⁹. Jute is another main crop in the district. Floriculture is also prominent in Howrah.

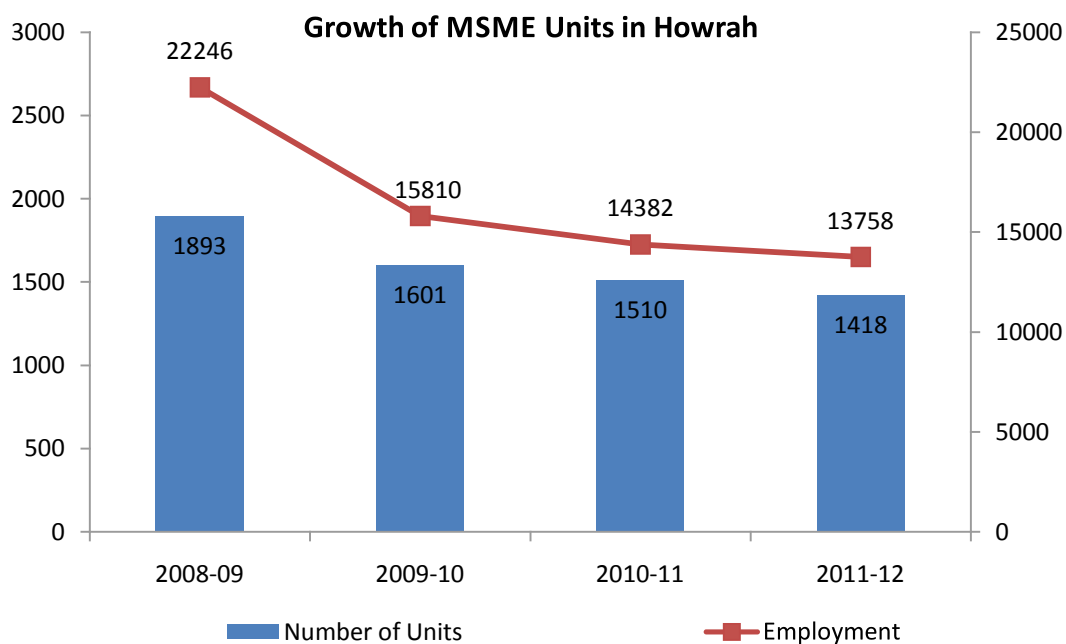
Pisciculture is a prominent allied activity in the Howrah with Ganges being the main source for fishing activities. Availability of better water transport systems aid fisheries in Howrah. While the potential area under Pisciculture is relatively low in comparison to other districts, Howrah has high proportion of effective land used comprising of 8000 ha, employing around 86 thousand people.

16.10.2.2 Industry

Proximity to the state capital has supported the growth of industrial development in parts of Howrah district integrated under Kolkata Municipal Corporation. Metal & Alloy Foundry, Indian Aluminum Co.Ltd, Jindal(India)Ltd, Delta Industries Ltd, National Plasto Products Pvt Ltd, Hac Polytech(I)Ltd, Sonata Yarns Ltd, Ambuja Cement Eastern Ltd, Kiswok Indus.Pvt.Ltd, Frigerio Conserva Allana Ltd and Balagarh Power Co. Ltd are key players present in the district. As per 2011 estimates there are 3,181 registered factories operating in Howrah district providing average daily employment of 1, 74,696 .

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 6,422 units generating additional employment of over 66,195 during the period. Foundry, Readymade Garments and Leather Products, are prominent MSME units operating in the district. Traditional craft work is a unique activity carried out by village artisans. Employment growth trends in MSME segment are presented in the chart.

³²⁹ Directorate of Agriculture, Govt of West Bengal



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Howrah district.

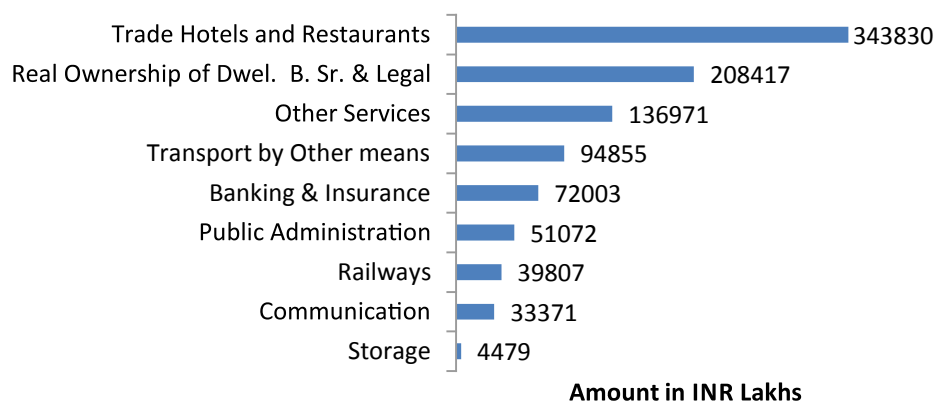
Existing Clusters	Clusters Identified for Promotion
(i) Gold & Silver Jewellery, (ii) Hand gloves (iii) Electronic Items (iv) Automobile Accessories, (v) Pharmaceuticals & Chemicals (vi) Leather Shoe (vii) Letter Printing Press, (viii) Lathe Works & Mechanical Equipments (ix) Readymade Garments, (x) Electrical Fans, (xi) GLS Lamp Manufacturing, (xii) Rubber products, (xiii) Hosiery Products (xiv) Dying Bleaching. (vi) Leather Chappal,	Foundry, Shuttle Cock Mfg., Metal Spare Parts

16.10.2.3 Services Sector

Services sector plays a key role in the economy of Howrah economy. This sector contributed to 62.3 percent³³⁰ of GDDP in the year 2006-07 witnessing a growth of 12.8 percent CAGR in the period between 2001-02 and 2006-07. Organized retail, hospitality, security services and financial Services are emerging services sectors in the district. Sub sector wise breakup of services income is presented in the chart.

³³⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Contribution of Services Sector to GDDP (2006-07)



Trade and hospitality industry of Howrah has grown by 12.4 percent³³¹ CAGR during 2001-02 and 2006-07. Howrah emerging as urban agglomerate due to proximity to State Capital Region, has significant potential for the growth of organized retail and hotel industry. Avani Riverside Mall, RD Mall and Big Bazar are some of the popular shopping destinations in Howrah.

Botanical Gardens is a prominent tourist attraction in the district. Other tourist places like Howrah Bridge, Vidyasagar Setu, Vivekananda Setu, Nivedita Setu, Belurmath Temple, and Garchumuk-- confluence of Hooghly and Damodar, attract considerable tourists.

Howrah has a relatively lower penetration of banking and financial services measured as a percentage of GDDP at 4.55 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district have grown by 3.67 percent CAGR between 2006 and 2011³³². Bank credit has grown at 13.41 percent CAGR and bank deposits had a growth of 21.31 percent CAGR in over the last five years³³³. Low penetration of banking and financial services would drive significant growth in the sector over the next decade in line with inclusion targets.

Healthcare coverage In terms of population served per bed at 892 persons per bed is comparable to state average of 851 persons per bed with low private participation. District has 41 PHCs and 15 CHCs along with 448 Sub centers³³⁴. Being a district with low private participation and good healthcare accessibility, there is significant scope for the growth of private institutions in Howrah. Details of healthcare infrastructure in the district are provided in the table.

³³¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³³²<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³³³<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³³⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in Howrah											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	610	1	350	7	585	0	0	13	445
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
2	25	41	292	7	984	1	35	2	272	141	1830
Total no of hospitals and beds		216					5428				

Contribution of railways to GDDP has grown at 8.2 percent CAGR and that of roadways & other transport has increased by 18.3 percent CAGR during 2001-02 and 2006-07³³⁵. NH 2 and NH 6 connect the district to Delhi and Hazira in Gujarat respectively. Railway network is well developed in the district with Howrah junction, center of all rail activity in the eastern region located in the region.

16.10.3 Workforce Distribution in the district

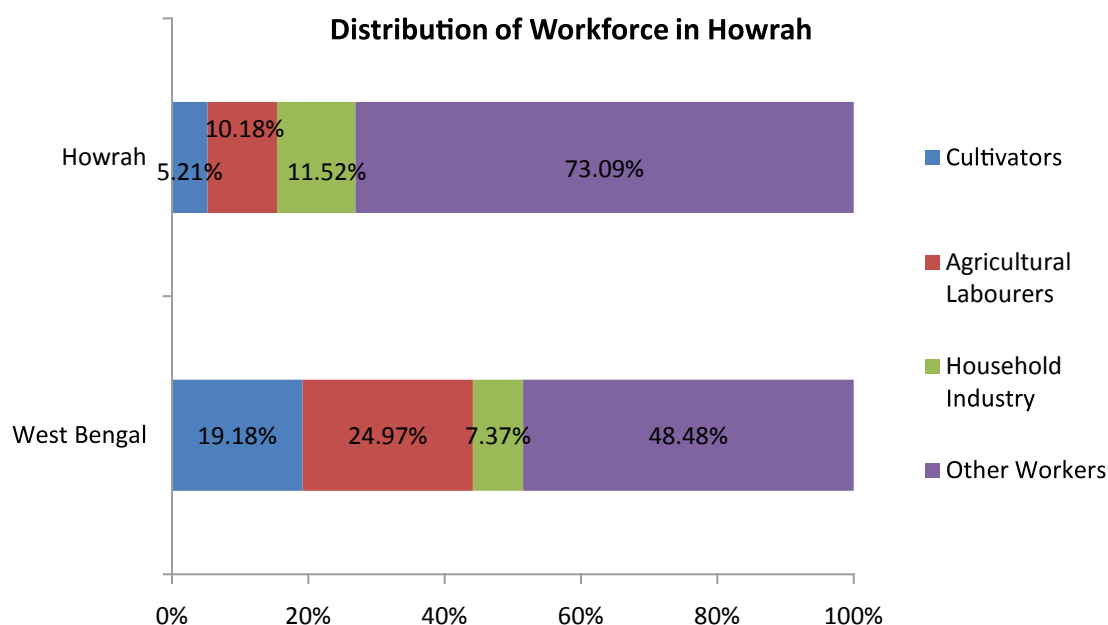
16.10.3.1 Current Employment Scenario in Howrah

Work Participation Rate (WPR) in the district (33.67 percent) is marginally lower than the state average of 36.77 percent. Female participation is uniformly low in both urban and rural regions indicating a need to focus on improving the same across both regions.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Howrah -Rural	33.39%	7.02%	14,12,773	4,81,882	9,30,891
Howrah -Urban	33.95%	3.03%	14,21,452	5,07,883	9,13,569
Howrah	33.67%	5.01%	28,34,225	9,89,765	18,44,460
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

³³⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Distribution of Workforce Participation indicates that nearly three fourths of the total workforce is relying on 'Other Activities' consisting of industrial and services sectoral employment. Convergence of large parts of the district with State Capital Region makes it a destination for industrial growth considering the excessive congestion within Kolkata. Industrial growth and better socio economic infrastructural features provide varied employment opportunities in Howrah.



The district being a hub for commercial activity providing varied job opportunities, attracts migration ranging from labourers to white collar jobs. Among the unorganized sectors, rural parts of Howrah covering blocks of Shyampur I and II witness migration from Jharkhand, Orissa and Bihar with a significant influx of child workers.

16.10.3.2 Estimation of Supply of Manpower in Howrah

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Howrah is a moderately high human resource growth district adding 8.48 lakh people to working age group during 2012-22. District being a favorite destination for employment related migration considering varied opportunities available in the district, availability of manpower may not be a challenge for the growth of industry.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Howrah	5248941	3511542	1802806	1494477	848804
West Bengal	99530929	66586192	34291889	31828200	18481360

16.10.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Howrah has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various

sectors based on labour elasticity and market based insights from discussions with industries in Howrah. According to the estimates, in the next 5 years, Howrah is expected to witness an incremental manpower requirement of over 3.52 lakhs³³⁶ which is expected to normalize to 3.02 lakhs³³⁷ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Animal Husbandry	9419	NA	NA	9419	7849	NA	NA	7849	17268
Pisciculture	905	NA	NA	905	517	NA	NA	517	1422
Agro based & Food Processing	11780	9424	2356	23560	9644	7715	1929	19288	42848
Iron & Steel	2945	2356	589	5890	2411	1929	482	4822	10712
Auto/Engineering	7215	5772	1443	14431	5907	4726	1181	11814	26245
Electrical & Electronics	3092	2474	618	6185	2532	2025	506	5063	11248
Rubber & Plastic Products	4418	3534	884	8835	3616	2893	723	7233	16068
MSME(Manufacturing /Assembling/Processing)	26647	15544	2221	44411	22272	12992	1856	37119	81530
Repairing & Maintenance	7472	4359	623	12453	6227	3632	519	10378	22831
Construction	44377	6724	2690	53791	34039	9077	2269	45385	99176
Healthcare	106	13	24	143	12873	1575	2863	17312	17455
Transportations and Logistics	34252	4952	2063	41268	28386	4104	1710	34200	75468
Retail	75303	10887	4536	90726	54218	7839	3266	65323	156049
Hospitality	13822	4936	987	19746	13416	4791	958	19165	38911
Communication	6631	2771	495	9898	5496	2297	410	8202	18100
Banking and Financial Services	5221	614	307	6142	4847	570	285	5702	11844
Education and Training	886	699	2761	4346	591	466	1840	2897	7243

³³⁶ KPMG Estimates on Incremental Manpower Requirement

³³⁷ KPMG Estimates on Incremental Manpower Requirement

16.10.4 Human Resource Development Scenario in the District

16.10.4.1 Current State of Workforce Development

Concentration of higher education institutes in Howrah is marginally lower than the state average. District is home to renowned educational institutions in West Bengal like the Bengal Engineering & Science University along with Mahesh Bhattacharya Homeopathy Medical College and Hospital and the Netai Charan Chakorborty Homeopathic Medical College. Comparison of higher education infrastructure in Howrah with West Bengal is presented in the table.

Category of College	West Bengal	Howrah
General Degree	452	19
BEd	129	8
Physical Education	20	–
Law	26	–
Music	2	–
Art	4	–
Engineering & Technology	85	6
Business Management & Hotel Management	42	2
Total	760	35
Density(Colleges per Thousand Population)	0.83	0.72

Accessibility of vocational education in Hooghly is among the highest in districts of West Bengal. The district has two polytechnic colleges in - Engineering Institute for Junior Executives and Ramakrishna Mission Shilpamandira. Three Govt ITI s and one ITC have a total trainin capacity of 1656. Details of vocational education infrastructure in Howrah is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Howrah	3	1		4	1600	56		1656	0.34

Howrah has one employment exchange with live over 2,80,000 live registrations³³⁸. However, placement rates were very poor with minimal private participation³³⁹.

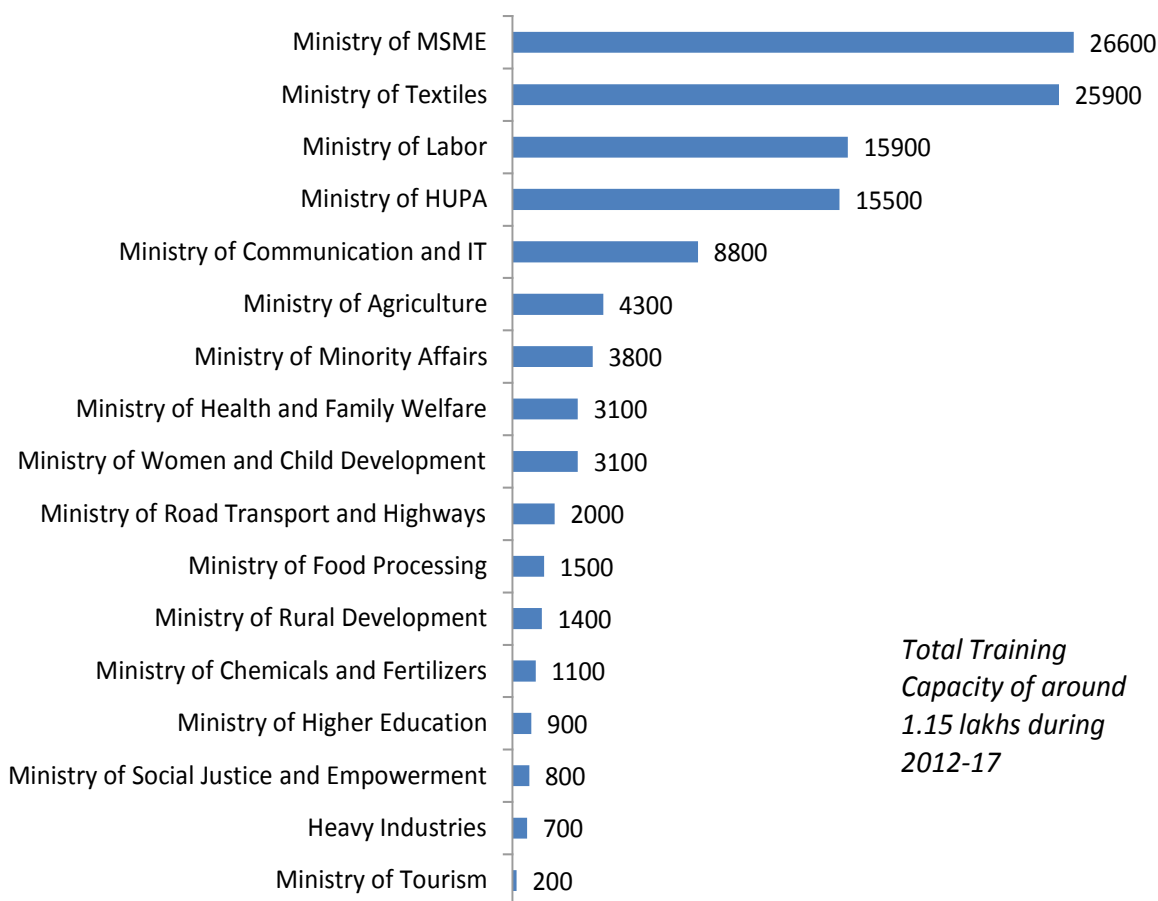
³³⁸ 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

³³⁹ 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.10.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 1.15 lakh people in total can be trained incrementally during the five year period of 2012-17. Schemes targeting all economic sectors have significant training mandate in the district. Considering the overall industrial growth of the district there is significant training potential for common skill requirements among the industries. Further, there are significant up skilling opportunities for private training providers in Jute and Textile sector.

Potential Training Capacity in Howrah during 2012-17



16.10.5 District Specific Recommendations

Howrah has opportunity in direct training of manpower to the extent of 3.52 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Huge potential for the growth of Agro based, Engineering/Auto, MSME sectors
- Increasing demand for Transportation, Retail workforce
- Construction is a key activity with large demand for manpower

Considering these factors, the proposed action plan for stakeholders in skill development in Howrah district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Agro Processing ○ Engineering/Auto
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry ○ Jute/Textile Units
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Agro Processing ○ Engineering/Auto
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Agro Processing ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.11 Skill Gap Assessment of Jalpaiguri District

16.11.1 Social Profile

16.11.1.1 Demographics

Jalpaiguri is moderately populated district in West Bengal with a population of 38.7 lakhs as per 2011 Census. District is predominantly rural with a 73 percent share of rural population³⁴⁰. Population growth of the district has witnessed considerable dip from 21.45 percent during 1991-2001 to 13.77 percent during 2001-2011. Along with effect of population control measures, outward migration has played a major role in checking population growth³⁴¹. The district is among sparsely populated regions of the state with a low density of 621 persons per sq.km in comparison to state average of 1029 persons per 1000 males³⁴². While the adult gender ratio has increased from 942 females per 1000 males in 2001 to 954 females per 1000 males by 2011.³⁴³, child gender ratio has reduced from 969 girls per 1000 boys to 949 girls per 1000 boys³⁴⁴ during the same period. The district has significantly high proportion of reserved population accounting for 55.6 percent³⁴⁵ of the district population. Indo-Mongoloid tribe known as 'Raj Bangshis' is predominant tribal class of Jalpaiguri.³⁴⁶

16.11.1.2 Literacy

Jalpaiguri has registered a literacy rate of 73.79 percent in 2011 witnessing a significant improvement from 62.85 percent in 2001.³⁴⁷ The district has 4288 K-12 institutions with only 16.28 percentage contribution from private segment.³⁴⁸ Dropout rates indicate that while proportion of out of school children has been controlled at primarily level it is higher at the upper primary level in comparison to state average. Hence additional focus needs to be given to check the upper primary dropouts. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Jalpaiguri	309135	1556	0.50%	357369	6046	1.69%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.11.2 District Economy

Jalpaiguri is a moderate economy in West Bengal. District economy has witnessed a lower lesser growth in comparison to overall state. During the period 2001-02 to 2006-07 district income registered a cumulative growth rate of 10.97 percent³⁴⁹

³⁴⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁴¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁴²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁴³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁴⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁴⁵http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

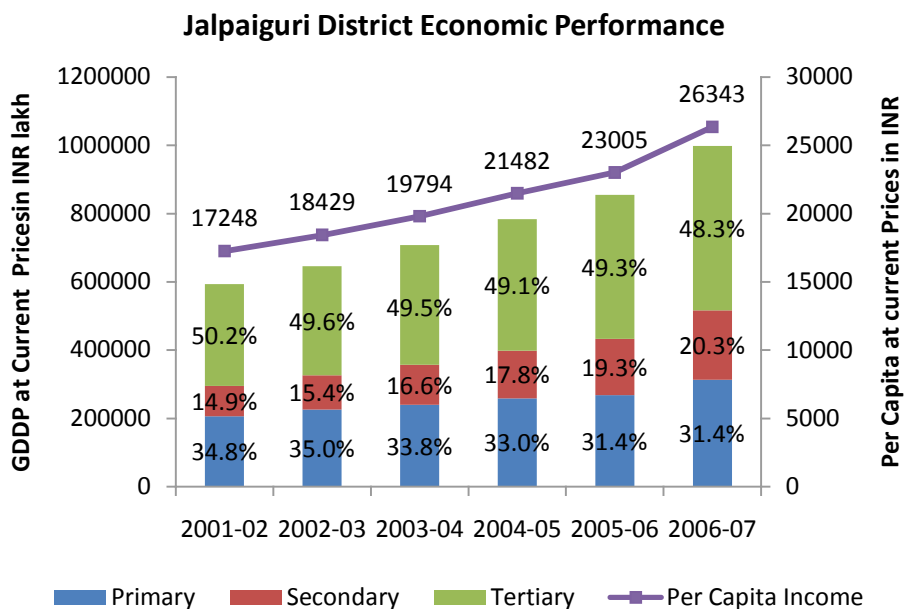
³⁴⁶<http://jalpaiguri.nic.in/html/culture.html>

³⁴⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁴⁸<http://www.dise.in/drc.htm>

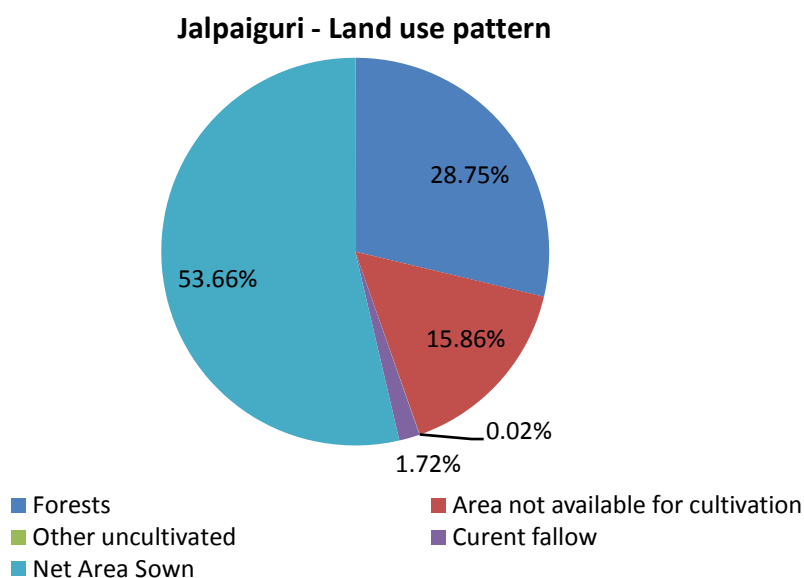
³⁴⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

as against state average of 11.65 percent³⁵⁰. Services sector accounts for major share of district income. Over the recent years, contribution of secondary sector is on the rise, while that of both primary and tertiary has declined marginally. Sub-Sector wise district income growth trends are presented in the chart.



16.11.2.1 Agriculture and allied sectors

Jalpaiguri is a key agricultural district in West Bengal. District has around 3, 34,127 ha net sown area with a 54 percent share of total geographical area of the district. Limited availability of irrigation facilities has reduced potential for multiple cropping with only 64 percent of net sown area under exposed to multiple cropping. The district land usage distribution is presented in the chart.



³⁵⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Jalpaiguri has second highest percentage of forest cover among districts of West Bengal. District has a forest cover of 28.75 percent in comparison to the state average of 13.52 percent. Semi-Moist-Deciduous vegetation comprises significant portion of forest cover. High rise forests, floodplains of rivers like Murti, Jaldhaka, Torsa etc. covered with are other types of forest cover in the district. Grasslands in floodplains nourish wide spectrum of wildlife.³⁵¹ High quality woods like Sal and Fire wood are key forest produce in Jalpaiguri³⁵².

Rice is a key agricultural crop in the district accounting for 40 percent of its net sown area under rice cultivation. Wheat, jute, potato and chilli are other prominent crops in Jalpaiguri³⁵³.

Agriculture in Jalpaiguri is mainly dependent on tea plantation. District is second largest producer of tea in the state. Horticulture crops like pineapple, banana, mandarin orange, jackfruit and flowers are grown in the district.

Jalpaiguri accounts for largest share of Eri silk production in West Bengal. Along with Eri silk district also produces Muga silk.

District has considerable Pisciculture opportunities with a total available net area of 6000 ha. at an effective utilization of 75%³⁵⁴ providing employment for around 1.11 lakhs.

16.11.2.2 Industry

The district has natural advantages for industrial growth with availability of natural reserves of Coal, copper ore, limestone and dolomite deposits, forests and climatic conditions suitable for tea cultivation. Tea gardens, Jute pressing, Saw milling, Chemicals, Food Processing and Match manufacturing are the major industries. Hindustan Lever Ltd, Hindustan Coca-Cola Beverage Pvt.Ltd, T & I Global Industries Ltd are key players present in the district. As per 2011 estimates there are 534 registered factories operating in Jalpaiguri district providing average daily employment of 30,184.

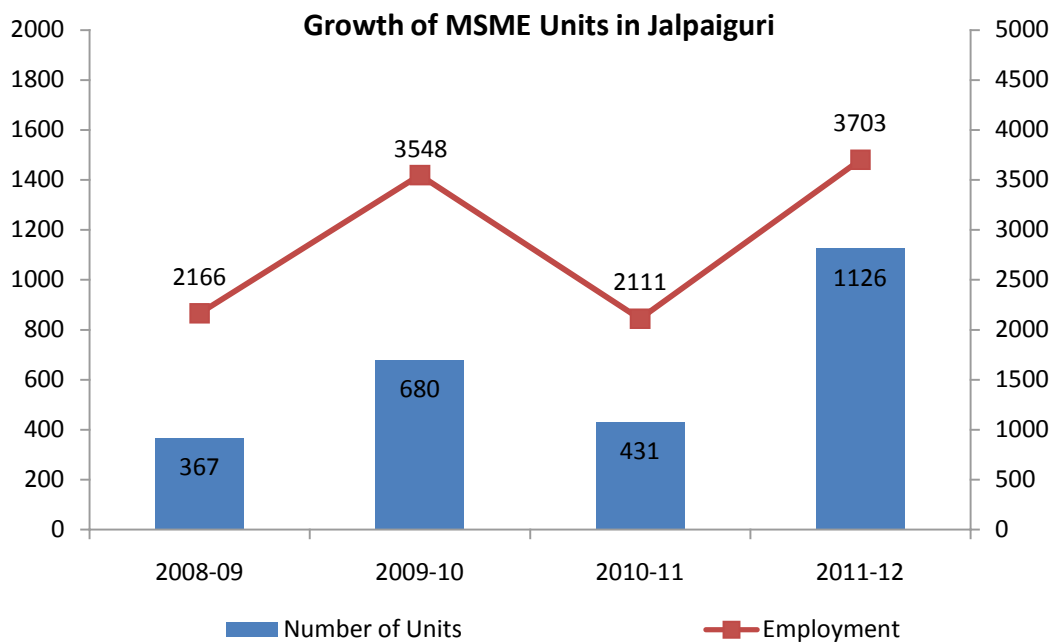
Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 2,604 units generating additional employment of over 11,528 during the period. Clay Pottery, Bamboo Products and Plastic Products are prominent MSME units operating in the district. Employment growth trends in MSME segment are presented in the chart.

³⁵¹ Directorate of Agriculture, Govt of West Bengal

³⁵² Directorate of Agriculture, Govt of West Bengal

³⁵³ Directorate of Agriculture, Govt of West Bengal

³⁵⁴ Directorate of Pisciculture, Govt of West Bengal



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Jalpaiguri district.

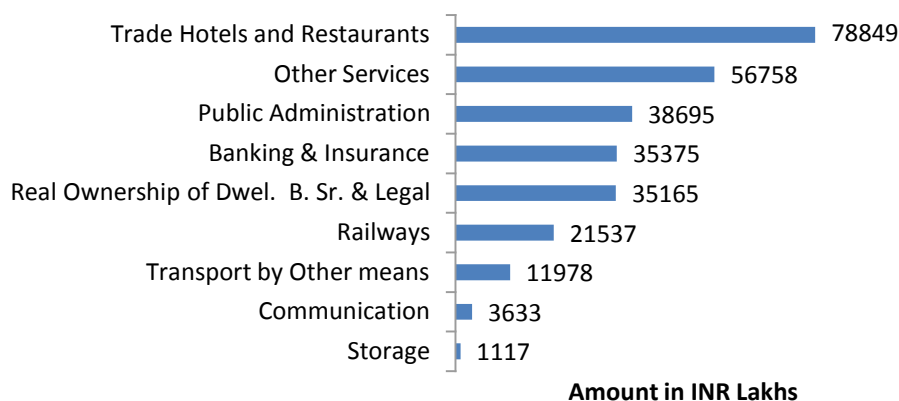
Existing Clusters	Clusters Identified for Promotion
(i) Clay Pottery & Idols, (ii) Plastic products, (iii) Cane & Bamboo products.	Plastic Products

16.11.2.3 Services Sector

Service sector plays a key role in the economy of Jalpaiguri. Sector contributed to 48.26 percent³⁵⁵ of GDDP in the year 2006-07 witnessing a growth of 10.1 percent CAGR in the period between 2001-02 and 2006-07. Tertiary activities in the district are predominantly un-organized in nature. Sub sector wise breakup of services income is presented in the chart.

³⁵⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Contribution of Services Sector to GDP (2006-07)



Jalpaiguri being a district with significant forest cover has significant opportunities in tourism development. The district houses some of the well known wildlife sanctuaries and sceneries in West Bengal³⁵⁶. Gorumara, Chapramari, Jaldapara, Murti, Khutimari, Buxa Tiger Reserve and Jayanti are popular wildlife sanctuaries in the district³⁵⁷.

Kolkata has low penetration of banking and financial services measured as a percentage of GDP at 4.26 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of has grown by 3.82 percent CAGR between 2006 and 2011³⁵⁸. Bank credit has witnessed a growth of 13.49 percent CAGR and bank-deposits had 15.01 percent CAGR over the last five years³⁵⁹. Low penetration of banking and financial services would drive significant growth in the sector over the next decade in line with financial inclusion targets.

Healthcare coverage in terms of population served per bed at 1,215 persons per bed is significantly low in comparison to state average of 851 persons per bed.

The district has 38 PHCs and 14 CHCs along with 537 Sub centers³⁶⁰. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

³⁵⁶<http://jalpaiguri.gov.in/html/tourism.html>

³⁵⁷<http://jalpaiguri.gov.in/html/tourism.html>

³⁵⁸<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³⁵⁹<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³⁶⁰<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in Jalpaiguri											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	700	2	350	1	100	1	60	12	390
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
2	25	38	256	3	67	0	0	4	215	54	1022
Total no of hospitals and beds		118					3185				

Contribution of railways to GDDP has grown at 8.9 percent CAGR and that of roadways & other transport at 9.6 percent CAGR during 2001-02 and 2006-07³⁶¹. While there are no major highways passing through the district, train services are well developed in this region with direct connections to major stations of the country and via Kolkata as well.

16.11.3 Workforce Distribution in the district

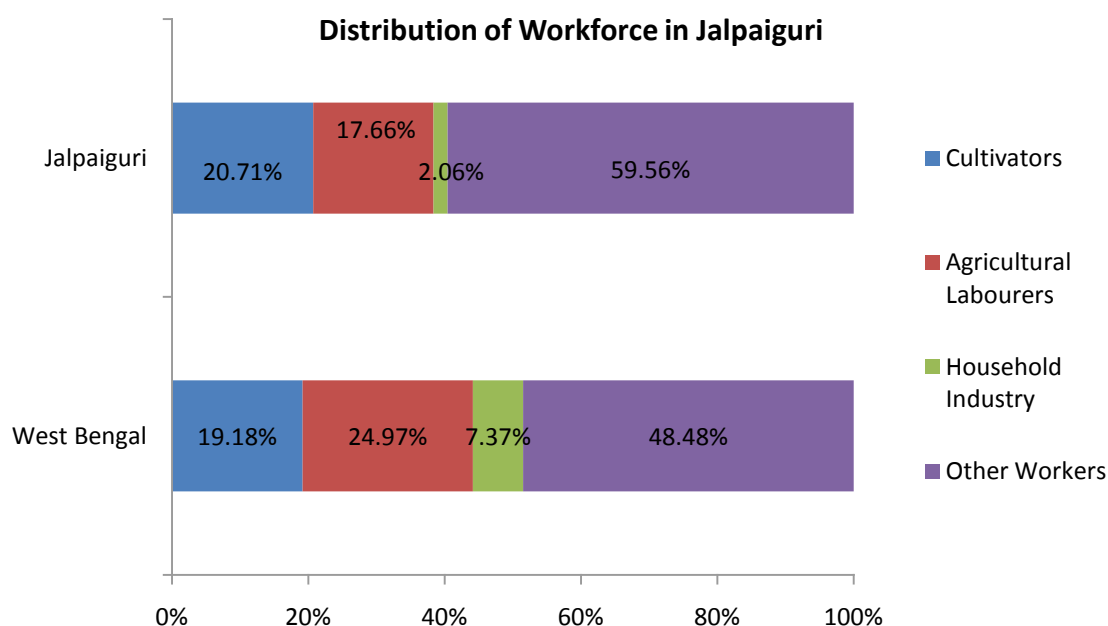
16.11.3.1 Current Employment Scenario in Jalpaiguri

Work Participation Rate (WPR) in the district (38.31 percent) is marginally higher than the state average of 36.77 percent. However female participation in rural areas is significantly low indicating a need to address the issue to ensure gender inclusive growth.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Jalpaiguri -Rural	39.59%	9.4%	16,88,002	6,86,390	10,01,612
Jalpaiguri -Urban	32.44%	2.49%	4,10,035	1,49,355	2,60,680
Jalpaiguri	38.31%	8.17%	2,09,037	8,35,745	12,62,292
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

³⁶¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Distribution of Workforce Participation indicates that nearly 60 percent of the total workforce is relying on 'Other Activities' consisting of predominantly services sectoral employment.



16.11.3.2 Estimation of Supply of Manpower in Jalpaiguri

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Jalpaiguri is a moderate human resource growth district adding 8.37 lakh people to working age group during 2012-22.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Jalpaiguri	4206703	2814284	1612479	1336701	837036
West Bengal	99530929	66586192	34291889	31828200	18481360

16.11.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Jalpaiguri has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Jalpaiguri. According to the estimates, in the next 5 years, Jalpaiguri is expected to witness an incremental manpower requirement of over 1.8 lakhs ³⁶² which is expected to normalize to 1.55 lakhs ³⁶³ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

³⁶² KPMG Estimates on Incremental Manpower Requirement

³⁶³ KPMG Estimates on Incremental Manpower Requirement

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	1970	NA	NA	1970	1970	NA	NA	1970	3940
Animal Husbandry	11270	NA	NA	11270	9392	NA	NA	9392	20662
Pisciculture	3116	NA	NA	3116	1780	NA	NA	1780	4896
Agro based & Food Processing	2580	2064	516	5160	2112	1690	422	4224	9384
MSME (Manufacturing /Assembling /Processing)	4641	2707	387	7734	3879	2263	323	6464	14198
Repairing & Maintenance	1301	759	108	2169	1084	633	90	1807	3976
Construction	46795	7090	2836	56721	35894	9572	2393	47858	104579
Healthcare	5588	684	1243	7515	10343	1266	2301	13910	21425
Transportations and Logistics	11723	1695	706	14124	9715	1405	585	11705	25829
Retail	33926	4905	2044	40875	24427	3532	1472	29430	70305
Hospitality	12455	4448	890	17792	12089	4317	863	17269	35061
Communication	3161	1321	236	4718	2619	1095	195	3910	8628
Banking and Financial Services	3087	363	182	3632	2866	337	169	3372	7004
Education and Training	966	762	2198	3926	644	508	1465	2617	6543

16.11.4 Human Resource Development Scenario in the District

16.11.4.1 Current State of Workforce Development

Concentration of higher education institutes in Jalpaiguri is significantly lower than the state average. Jalpaiguri Government Engineering College is a prominent technical institute in the district. Comparison of higher education infrastructure in Jalpaiguri with West Bengal is presented in the table.

Category of College	West Bengal	Jalpaiguri
General Degree	452	15
Bed	129	3
Physical Education	20	2
Law	26	1
Music	2	–
Art	4	–
Engineering & Technology	85	1
Business Management& Hotel Management	42	–
Total	760	22
Density(Colleges per Thousand Population)	0.83	0.57

Jalpaiguri has least penetration vocational education in West Bengal. District has two polytechnic colleges-Falakata Polytechnic and Jalpaiguri Polytechnic Institute. Two Govt ITI s in the district have a total training capacity of 56. Details of vocational education infrastructure in Jalpaiuri is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Pivate ITI	Total	Govt ITI	Govt ITC	Pivate ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Jalpaiguri	2			2	56			56	0.01

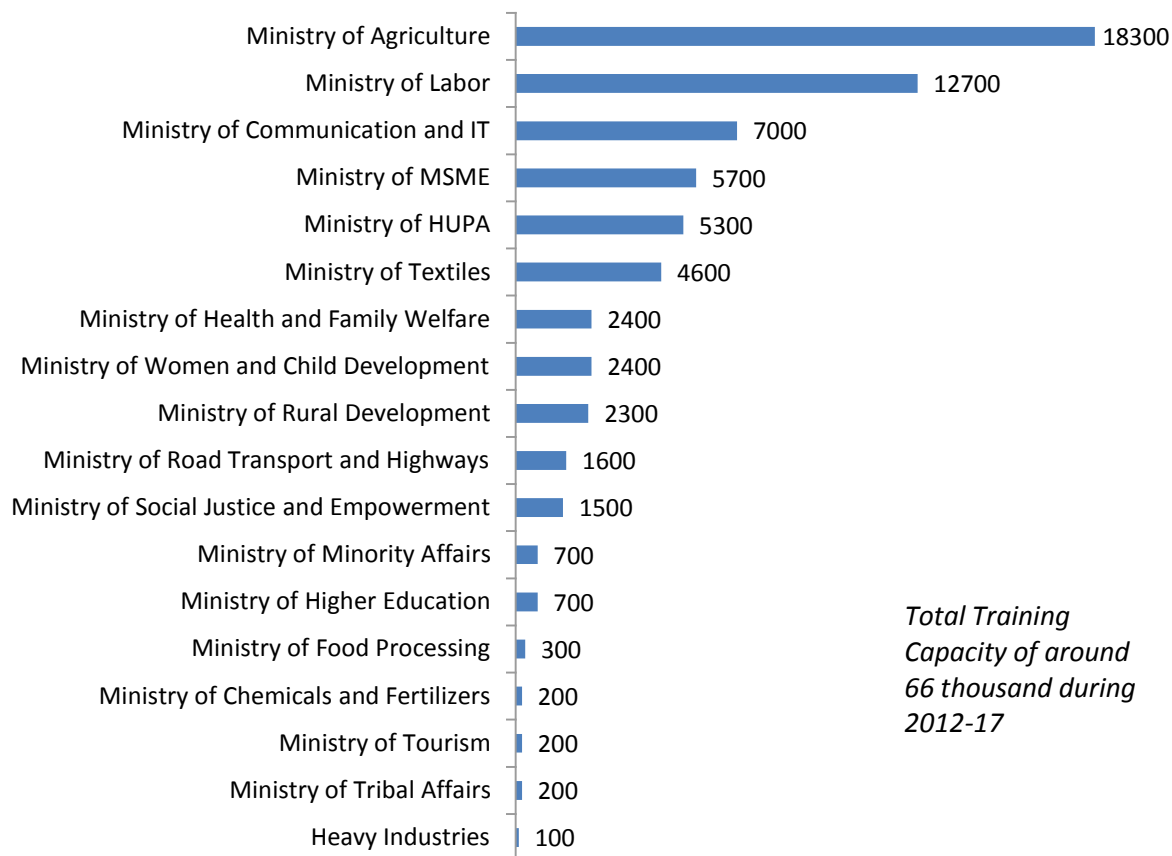
Three employment exchanges functioning in the district have over 1,90,000 live registrations. However, placement rates were very poor with minimal private participation³⁶⁴.

16.11.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 66 thousand people in total can be trained incrementally during the five year period of 2012-17. Schemes targeting livelihood promotion particularly among scheduled castes/tribes have significant training mandate in the district considering high proportion of backward communities in the district.

³⁶⁴ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in Jalpaiguri during 2012-17



16.11.5 District Specific Recommendations

Jalpaiguri has opportunity in direct training of manpower to the extent of 1.8 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Manufacturing training requirement limited to Agro Processing Industries
- Significant unorganized employment potential in Construction, Retail
- Potential for development of Agri-Allied Activities.
- Considerable Forest based livelihood opportunities

Considering these factors, the proposed action plan for stakeholders in skill development in Jalpaiguri district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting placement outside the district
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry ○ Pisciculture ○ Forest Produce
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Agro Processing
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Agro Processing ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.12 Skill Gap Assessment of Malda District

16.12.1 Social Profile

16.12.1.1 Demographics

Malda is predominantly a rural district with 39.97 lakhs population as per 2011 Census. Around 86.2 percent of total district population lives in rural areas.³⁶⁵ Population density of the district, 1071 persons per sq.km is marginally higher than state average of 1029 persons per sq.km.³⁶⁶ Malda population density has increased significantly from 881³⁶⁷ persons per sq km in 2001 due to rapid growth in district population during 2001-11. The district has registered a decadal growth rate of over 20 percent³⁶⁸ for the last two decades. The district has witnessed dip in gender ratio across age levels. Adult gender ratio has reduced from 948 females per 1000 males in 2001 to 939 females per 1000 males in 2011³⁶⁹. While the child (0-6) gender ratio has reduced from 964 girls per 1000 boys 945 girls per 1000 boys during the same period³⁷⁰. Reserved categories comprise 23.7 percent³⁷¹ of the total district population.

16.12.1.2 Literacy

Malda has significantly low literacy rate of 62.71 percent in comparison to state average of 73.79 percent.³⁷² However, literacy rate has witnessed considerable improvement from 50.28 percent in 2001 to reach the current levels. As per 2011 estimates district has 3649 K-12 institutions³⁷³ with 20.86 percent³⁷⁴ share of private sector. While the current literacy levels are low, dropout rates are comparable to the state averages indicating considerable achievements in ensuring universal primary and upper primary education. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Malda	298866	3973	1.33%	345499	5313	1.54%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.12.2 District Economy

Malda is a moderate economy in West Bengal. The district economy has witnessed a lower lesser growth in comparison to overall state. During the period between 2001-02 and 2006-07 district income has grown by 8.56 percent CAGR³⁷⁵ in comparison to state average of 11.65 percent CAGR³⁷⁶. Malda is predominantly a services driven economy, with the sector

³⁶⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁶⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁶⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁶⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁶⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁷⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁷¹http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

³⁷²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

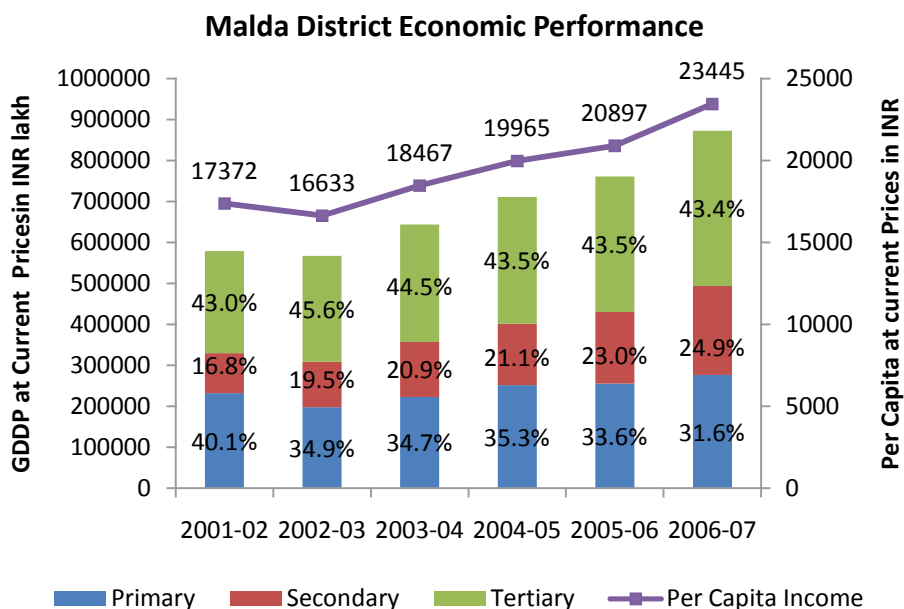
³⁷³<http://www.dise.in/drc.htm>

³⁷⁴<http://www.dise.in/drc.htm>

³⁷⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

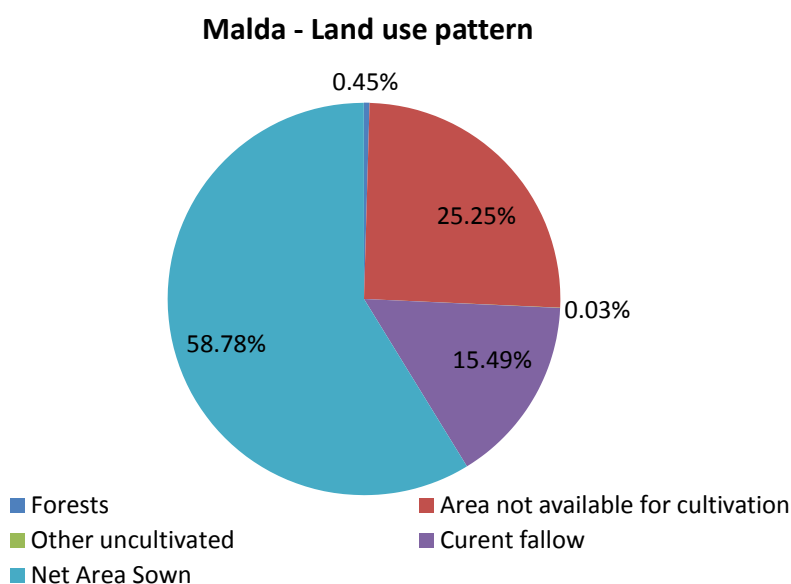
³⁷⁶<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

accounting to majority share of district income consistently. Contribution of Primary sector to district income has declined over the recent years, which has been compensated by proportional growth from Secondary sector. Sub-Sector wise district income growth trends are presented in the chart.



16.12.2.1 Agriculture and allied sectors

Agriculture is a key source of livelihood in Malda. Availability of cultivable land is limited by lower proportion of net sown area (57.29 percent³⁷⁷) in total district geographical area. Rivers of Mahananda, Kalindri, and Ganges flowing in and around the district are major source of irrigation in Malda. District land usage distribution is presented in the chart.



³⁷⁷ Directorate of Agriculture, Govt of West Bengal

Rice is a key agricultural crop in the district accounting for 48.11 percent of net sown area in the district during 2009-10³⁷⁸. Apart from rice, Malda is a major producer of wheat in West Bengal, next to Murshidabad. Rapeseed, mustard, jute, Onions, mango and litchi other prominent crops grown in the district.

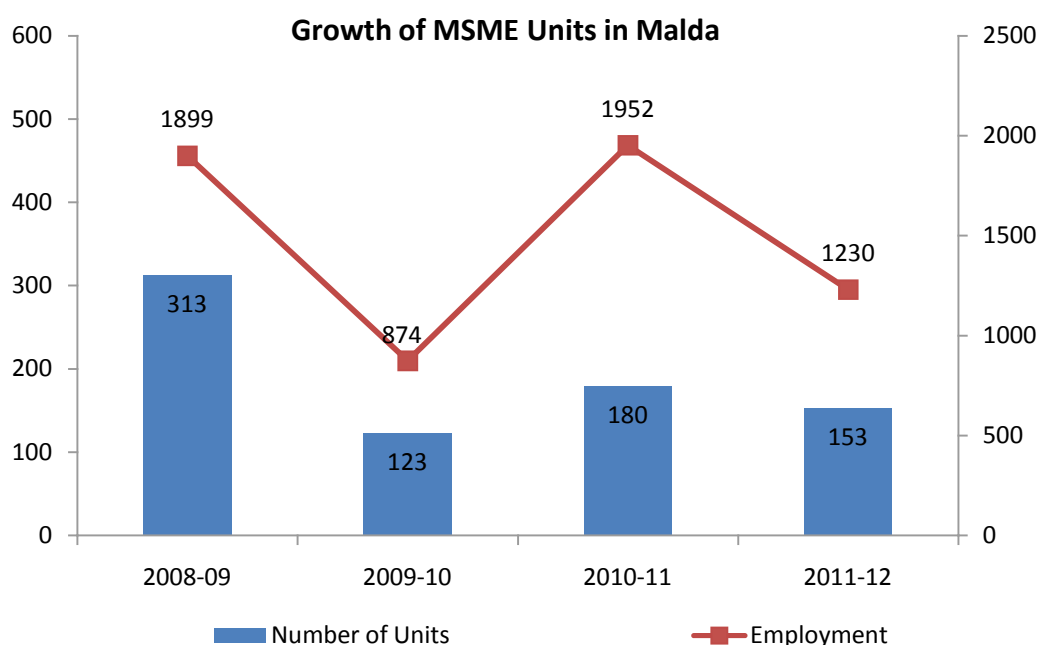
Rivers in Malda have boosted growth of fishing industry in the district. While over 16,000 ha. of net area is available for pisciculture, district could manage only 35%³⁷⁹ under effective usage indicating tremendous potential for the growth of fishing activities.

District climatic conditions with short winters, is conducive for the growth of Mulberry. District is the largest producer of Mulberry silk in West Bengal.

16.12.2.2 Industry

Malda being a very fertile district with significant sericulture and mango cultivation along with food crops has resulted in growth of food processing and textile processing units. However, industrial growth in the district is limited to only these sectors due to limited availability of industrial infrastructure. Woolworth (India)Ltd, East End Silk Ltd, Indian Oil Corpn. Ltd are key players present in the district. As per 2011 estimates there are 74 registered factories operating in Malda district providing average daily employment of 2,717.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 769 units generating additional employment of over 5,955 during the period. Honey Processing, Mango Processing are prominent MSME units operating in the district. Employment growth trends in MSME segment are presented in the chart.



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Malda district.

³⁷⁸ Directorate of Agriculture, Govt of West Bengal

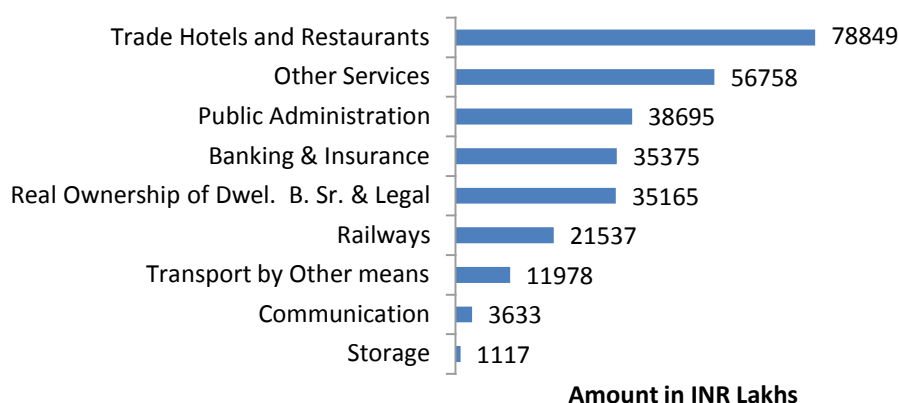
³⁷⁹ Directorate of Pisciculture, Govt of West Bengal

Existing Clusters	Clusters Identified for Promotion
(i) Mango Processing, (ii) Honey Processing	Honey Processing

16.12.2.3 Services Sector

Service sector has significant role in the economy of Malda. Sector has contributed to 43.44 percent³⁸⁰ to GDDP in the year 2006-07 witnessing a growth of 8.8 percent CAGR in the period between 2001-02 and 2006-07. Sub sector wise breakup of services income is presented in the chart.

Contribution of Services Sector to GDDP (2006-07)



Ramkeli is the most famous in this district for being the temporary home of Sri Chaitanya³⁸¹. Gour, Adina, Pandua, and recently explored Jagjibanpur are places of historical importance³⁸². There are a lot of mosques in this area, some of them being Adina Mosque, Lattan Mosque and Chika Mosque³⁸³.

Malda has marginally better penetration of banking and financial services measured as a percentage of GDDP at 5.31 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown at 2.36 percent CAGR between 2006 and 2011³⁸⁴. Bank credit has grown at 16.74 percent CAGR and bank deposits had 23.59 percent CAGR over the last five years³⁸⁵. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

Healthcare coverage in terms of population served per bed at 1,870 persons per bed is second least among the districts of West Bengal with a state average of 851 persons per bed. District has 35 PHCs and 15 CHCs along with 511 Sub centers³⁸⁶. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

³⁸⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁸¹<http://malda.nic.in/>

³⁸²<http://malda.nic.in/>

³⁸³<http://malda.nic.in/>

³⁸⁴<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³⁸⁵<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

³⁸⁶<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

District Healthcare Infrastructure											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	750	0	0	1	100	0	0	2	45	15	470
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	35	270	2	40	0	0	1	100	20	363
Total no of hospitals and beds		77					2138				

Contribution of railways to GDDP has witnessed a growth at 9.2 percent CAGR and that of roadways & other transport has increased by 1.9 percent CAGR during 2001-02 and 2006-07³⁸⁷. NH 34 passes through the district which connecting Dum Dum to Dakhola in Uttar Dinajpur³⁸⁸. Malda is connected to Howrah, Cochin, Bangalore, Lucknow, Kanpur and Nagpur by railways.

16.12.3 Workforce Distribution in the district

16.12.3.1 Current Employment Scenario in Malda

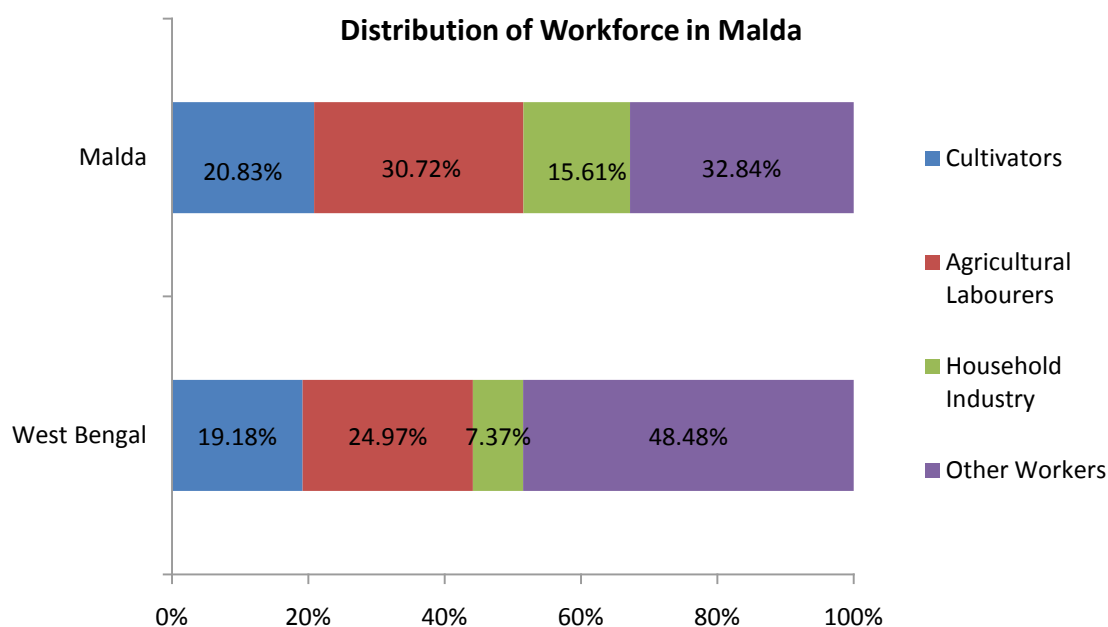
Work Participation Rate (WPR) in the district (40.75 percent) is considerably higher than the state average of 36.77 percent. However female participation in both rural and urban areas is significantly low indicating a need to address the issue to ensure gender inclusive growth.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Malda -Rural	41.46%	12.07%	17,85,283	7,40,708	10,44,575
Malda -Urban	31.73%	2.33%	1,64,479	60,871	1,03,608
Malda	40.75%	11.36%	19,49,762	8,01,579	11,48,183
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

³⁸⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁸⁸http://nadia.gov.in/District_Profile/District_Profile-Details-page1/district_profile-details-page1.html#8

Distribution of Workforce Participation indicates that over half of the total district work force is dependent on agriculture and allied activities. Further, district has significant household industrial activity as evident from high proportion of household industry workers in comparison to state average.



16.12.3.2 Estimation of Supply of Manpower in Malda

The district wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Malda is a high human resource growth district adding 10.45 lakh people to working age group during 2012-22. Considering the limited availability within Malda, suitable skill training initiatives can address the issue of employing this population outside the district.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Malda	4541493	3038259	1854383	1537233	1045812
West Bengal	99530929	66586192	34291889	31828200	18481360

16.12.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Malda has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Malda. According to the estimates, in the next 5 years, Malda is expected to witness an incremental manpower requirement of over 2.17 lakhs³⁸⁹

³⁸⁹ KPMG Estimates on Incremental Manpower Requirement

which is expected to normalize to 1.8 lakhs³⁹⁰ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	53232	NA	NA	53232	46671	NA	NA	46671	99903
Animal Husbandry	16261	NA	NA	16261	13551	NA	NA	13551	29812
Pisciculture	12213	NA	NA	12213	6979	NA	NA	6979	19192
Jute & Textiles	395	316	79	789	323	258	65	646	1435
Drugs, Chemical & Petrochemicals	263	210	53	526	215	172	43	431	957
MSME (Manufacturing /Assembling /Processing)	2397	1398	200	3995	2004	1169	167	3339	7334
Repairing & Maintenance	672	392	56	1120	560	327	47	934	2054
Construction	41380	6270	2508	50158	31740	8464	2116	42320	92478
Healthcare	11756	1439	2615	15810	11613	1421	2583	15618	31428
Transportations and Logistics	6588	953	397	7938	5460	789	329	6578	14516
Retail	31336	4531	1888	37755	22562	3262	1359	27183	64938
Hospitality	5752	2054	411	8217	5583	1994	399	7975	16192
Communication	1198	501	89	1788	993	415	74	1482	3270
Banking and Financial Services	3359	395	198	3952	3119	367	183	3669	7621
Education and Training	1180	931	2125	4236	786	621	1417	2824	7060

³⁹⁰ KPMG Estimates on Incremental Manpower Requirement

16.12.4 Human Resource Development Scenario in the District

16.12.4.1 Current State of Workforce Development

Concentration of higher education institutes in Malda is lower than the state average. Gour Banga University in Malda is a prominent institute in the region. Comparison of higher education infrastructure in Malda with West Bengal is presented in the table.

Category of College	West Bengal	Malda
General Degree	452	11
BEd	129	8
Physical Education	20	1
Law	26	–
Music	2	–
Art	4	–
Engineering & Technology	85	1
Business Management & Hotel Management	42	–
Total	760	21
Density (Colleges per Thousand Population)	0.83	0.53

Accessibility of vocational education in Malda is marginally lower than the state average. Malda Polytechnic is the only polytechnic college in the district. Two Govt ITI s established in the district have a total training capacity of 656. Details of vocational education infrastructure in Malda is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density (Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Malda	2			2	656			656	0.16

Two employment exchanges in the district have over 2,22,000 live registrations³⁹¹. However, placement rates were very poor with minimal private participation³⁹².

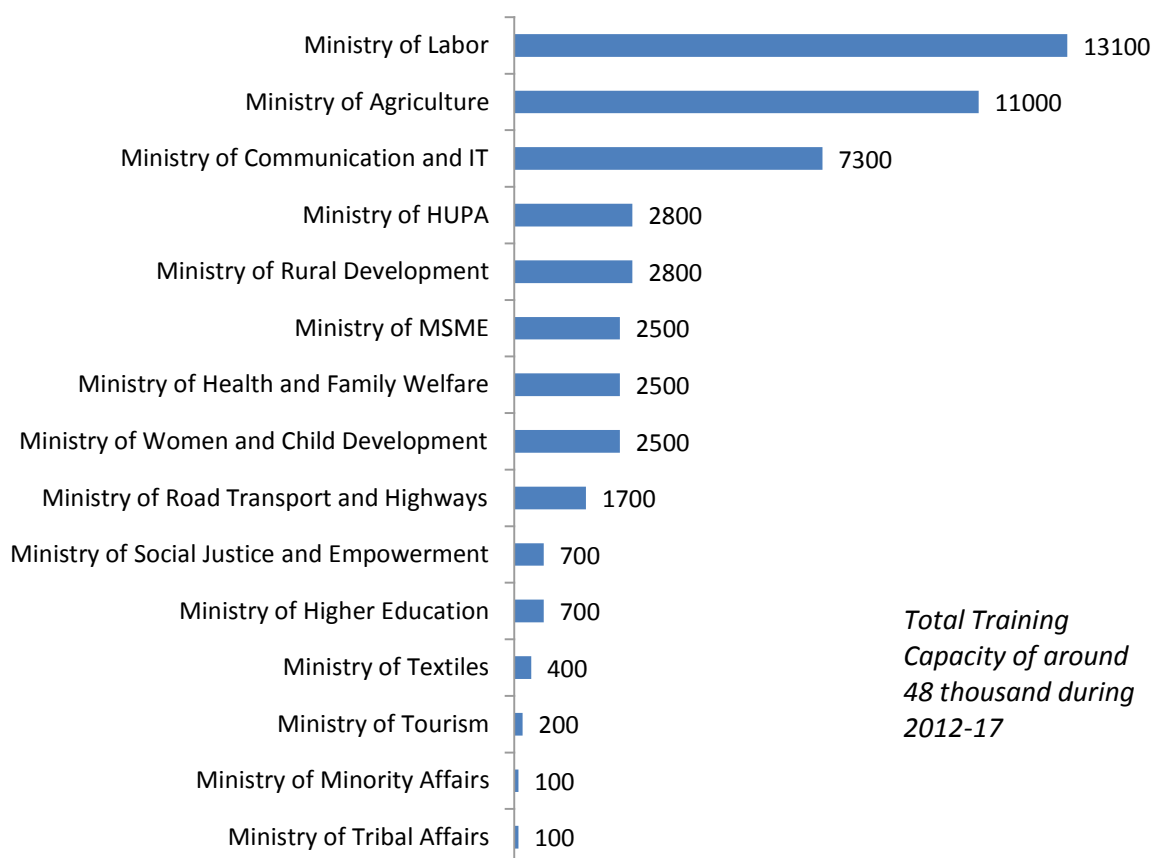
³⁹¹ 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

³⁹² 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.12.4.2 Incremental Training Capacity in the District

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 68 thousand people in total can be trained incrementally during the five year period of 2012-17. Schemes targeting livelihood promotion have significant training mandate in the district considering limited industrial growth in Malda.

Potential Training Capacity in Malda during 2012 -17



16.12.5 District Specific Recommendations

Jalpaiguri has opportunity in direct training of manpower to the extent of 2.17 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Manufacturing training requirement limited to Jute/Textile and Chemical Industries
- Significant unorganized employment potential in Construction, Retail
- Potential for development of Agri-Allied Activities like Sericulture, Pisciculture and Animal Husbandry

Considering these factors, the proposed action plan for stakeholders in skill development in Malda district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting placement outside the district
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry ○ Pisciculture ○ Sericulture
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Agro Processing
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Agro Processing ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.13 Skill Gap Assessment of Murshidabad District

16.13.1 Social Profile

16.13.1.1 Demographics

Murshidabad is fourth most populous district in West Bengal with a population of 71.02 lakhs of as per 2011 Census. The district is predominantly rural with a share of 80.22 rural population.³⁹³ Murshidabad has a higher population density of 1334 persons per sq. km in comparision to state average of 1029 persons per sq.km.³⁹⁴ The district population density has increased significantly from 1102 persons per sq km in 2001 due to rapid increase in population attributed to inward migration.³⁹⁵ Child gender ratio of the district at 963 girls per 1000 boys in 2011 is marginally higher than adult gender ratio of 957 females per 1000 males. Reserved categories account for only 13.3 percent of total district population.³⁹⁶

16.13.1.2 Literacy

Murshidabad has a low literacy rate of 67.53 percent as per 2011 Census. Though district literacy levels have increased from 54.35 percent in 2001³⁹⁷, it is still lower than state average of 73.79 percent.³⁹⁸ As per 2011 estimates, district has 6199 K-12 institutions³⁹⁹ with a high proportion of (91.24 percent) Goivernemnt participation. Murshidabad is among the districts with low retention levels in primary and upper primary levels. Focus should be given to check high levels of dropout rates in the district. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Murshidabad	532639	8948	1.68%	615747	17297	2.81%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.13.2 District Economy

Murshidabad is a moderate economy in West Bengal. District economy has witnessed a lesser growth rate in comparison to overall state average. During the period between 2001-02 and 2006-07 district income registered a cumulative growth rate of 10.88 percent⁴⁰⁰ as against state average growth rate of 11.65 percent during the same period⁴⁰¹. The district economy is primarily dependant on Services and Agricultural activities. Per Capita Income of Murshidabad at INR 24,463⁴⁰² is lower than state average of INR 31,003⁴⁰³ in 2006-07. Sub-Sector wise district income growth trends are presented in the chart.

³⁹³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹⁶http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

³⁹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

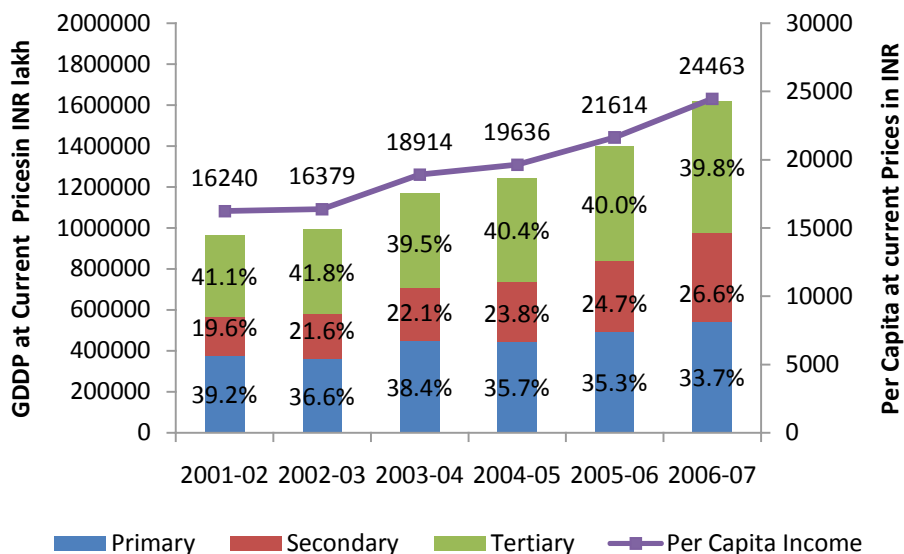
³⁹⁹<http://www.dise.in/drc.htm>

⁴⁰⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁰¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁰²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

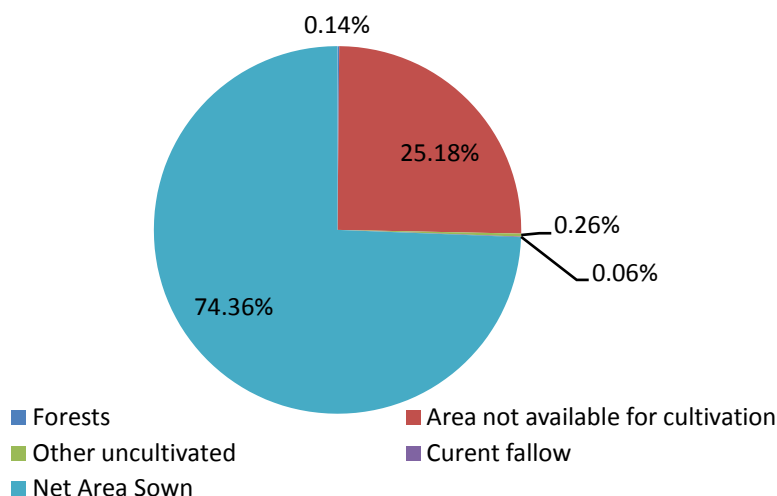
Murshidabad District Economic Performance



16.13.2.1 Agriculture and Allied sectors

Murshidabad is a key agricultural district in West Bengal with the district accounting for third highest share of total state net sown area. The district has around 3, 95,958 ha of net sown area accounting for 75 percent⁴⁰⁴ of total geographical area. Canals and tanks and tube-wells are major source of irrigation in Murshidabad⁴⁰⁵. District land usage distribution is presented in the chart.

Murshidabad - Land use pattern



⁴⁰³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁰⁴ Directorate of Agriculture, Govt of West Bengal

⁴⁰⁵ KPMG Analysis

Rice, wheat, barley and mustard are key agricultural crops in the district. Around 39.8 percent of net sown area is under rice cultivation in Murshidabad.⁴⁰⁶ The district has been witnessing a gradual shift in cropping patterns from food crops to cash crops like oil seeds.

Horticulture is another key agricultural activity in Murshidabad. Vegetables like cabbage, cauliflower, okra and onion along with fruits like mango, banana, papaya, guava and litchi are prominent horticultural crops in the district. Murshidanad is also a leading producer of eggs and milk.

The district has significant potential for the growth of fisheries. Over 45,000 ha of net area is available for pisciculture, of which only around 33,000 ha has been put under effective use. Along with North and South 24 Parganas, Murshidabad is among the districts with highest net utilized areas for pisciculture⁴⁰⁷.

Murshidabad is famous for the quality of silk produced in district. Relatively smaller periods of winter provide favorable climatic conditions for cultivating silkworms. District is second highest producer of Mulberry silk next to Malda.

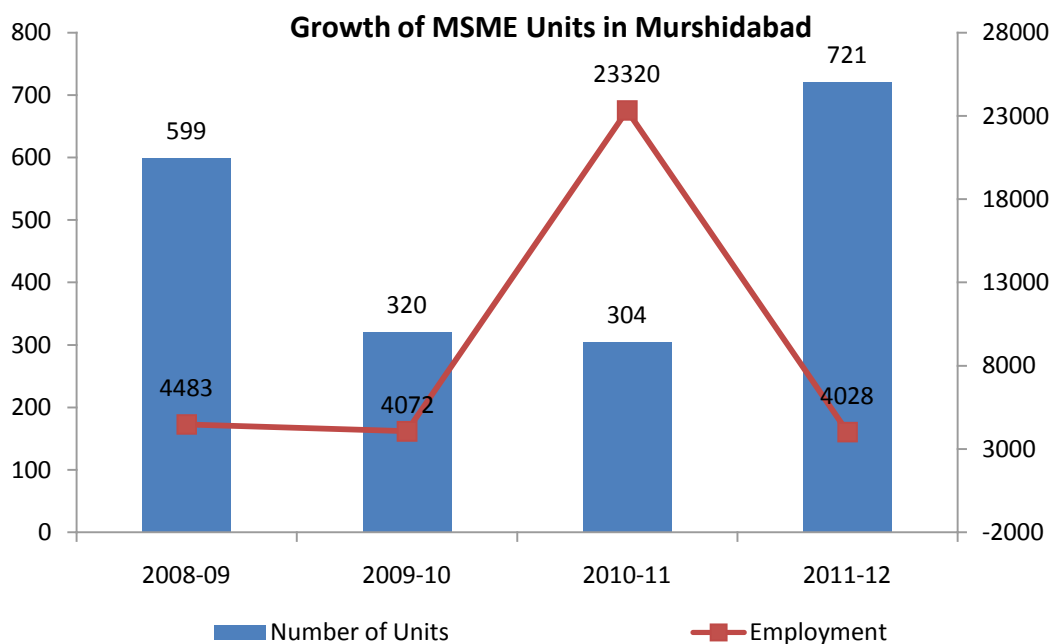
16.13.2.2 Industry

Murshidabad being primarily an agrarian economy has limited industrial development. However availability of agricultural produce like jute, oilseeds, mangoes and silk in the district has helped growth of silk processing units specifically in the medium to small scale category. In the large scale industries category district has Thermal Power Plants at Sagardeghi, Farraka (NTPC) and Hydro Power Plants. As per 2011 estimates there are 71 registered factories operating in Murshidabad district providing average daily employment of 5,101.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 1,944 units generating additional employment of over 35,903 during the period. Plastic & Plastic Products, Wooden Furniture are prominent MSME units operating in the district. Murshidabad raw silk has demand from across the globe. Baluchar town in the district is known for saree making units. Ivory, wood craft industry is also prominent in Murshidabad. Bidi companies are also present in significant numbers in Murshidabad. Bell-metal and brass utensils making units are present in Khagra, Berhampore, Kandi, Baranagar and Jangipur areas. Employment growth trends in MSME segment are presented in the chart.

⁴⁰⁶ Directorate of Agriculture, Govt of West Bengal

⁴⁰⁷ Directorate of Pisciculture, Govt of West Bengal



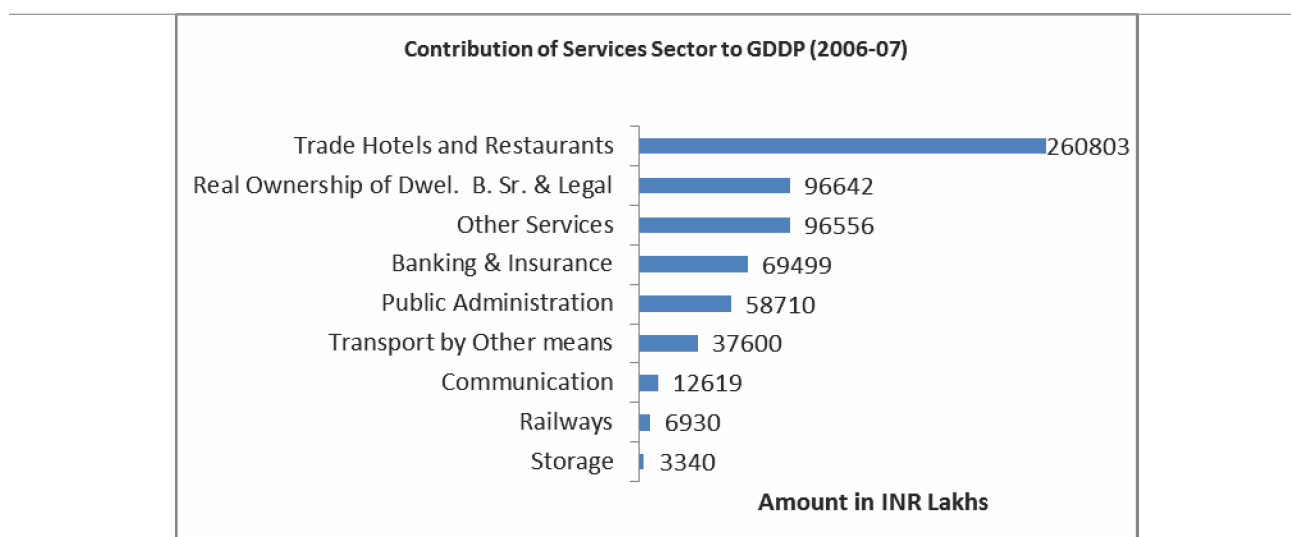
Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Murshidabad district.

Existing Clusters	Clusters Identified for Promotion
(i) Plastic Products, (ii) Pottery, (iii) Wooden Furniture & Fixture, (iv) Brass & Bell Metal (v) Bidi Making Units (vi) Garments	Plastic Products, Garments

16.13.2.3 Services Sector

Murshidabad being a predominantly agrarian district has considerable dependence on unorganized services activities. Tertiary sector contributed to 39.76 percent⁴⁰⁸ of GDDP in the year 2006-07 witnessing a growth of 10.1 percent CAGR in the period between 2001-02 and 2006-07. Sub sector wise breakup of services income is presented in the chart.

⁴⁰⁸<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



Among the tourist locations in the district, Hazarduari Palace is a key attraction. Other major tourist places in the district include Madina Mosque, NizamatImambara, Wasef Manzil, Tripolia Gate, Dakshin Darwaza, Chak Darwaza, Gharighar, Bachchawali Tope and Madina⁴⁰⁹.

Murshidabad has low penetration of banking and financial services measured as a percentage of GDDP at 4.3 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown at 5.99 percent CAGR between 2006 and 2011⁴¹⁰. Bank credit witnessed a growth of 20.78 percent CAGR and bank-deposits had a 25.58 percent CAGR over the last five years⁴¹¹. Low penetration of banking and financial services would drive significant Government focus on the sector over the next decade.

Healthcare coverage in terms of population served per bed at 1,703 persons per bed is one of the lowest among the districts of West Bengal with a state average of 851 persons per bed. The district has 69 PHCs and 27 CHCs along with 832 Sub centers⁴¹². Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Murshidabad											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	800	4	950	0	0	2	350	17	570

⁴⁰⁹<http://murshidabad.nic.in/tourism.htm>

⁴¹⁰<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁴¹¹<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁴¹²<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
10	141	68	508	4	173	1	20	3	103	55	555
Total no of hospitals and beds		166					4170				

Contribution of railways to GDDP has grown at 9.1 percent CAGR and that of roadways & other transport had a 15.1 percent CAGR growth during 2001-02 and 2006-07⁴¹³. NH 34, NH 80 and NH 81 passing through the district provide connectivity to Kolkata, Mokamah (Bihar) and Kora (Bihar) respectively⁴¹⁴.

16.13.3 Workforce Distribution in the district

16.13.3.1 Current Employment Scenario in Murshidabad

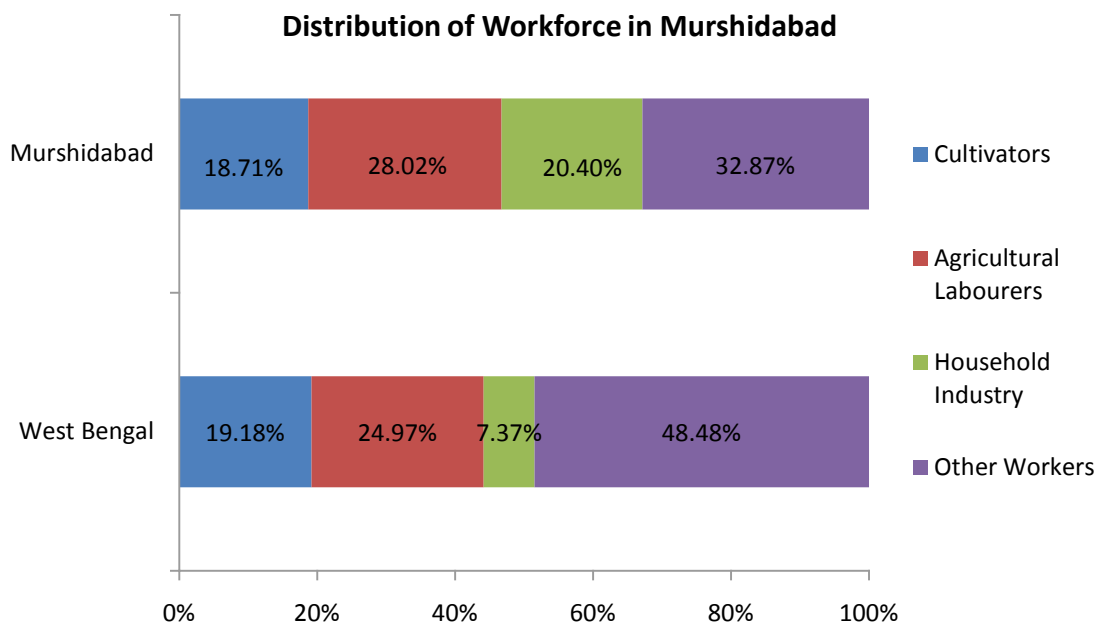
Work Participation Rate (WPR) in the district (34.18 percent) is marginally lower than the state average of 36.77 percent. Further, district has lower rural participation rates than the urban regions, which is different from trend observed in most of the other district of West Bengal indicating dearth of opportunities at rural level. Female participation is uniformly low across rural and urban areas.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Murshidabad -Rural	33.47%	5.79%	34,15,288	12,83,287	21,32,001
Murshidabad - Urban	39.12%	4.85%	4,46,107	1,85,044	2,61,063
Murshidabad	34.18%	5.67%	38,61,395	14,68,331	23,93,064
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Distribution of Workforce Participation indicates that contribution of agriculture is lower than the state average employment indicating the importance of services and industrial sector within the district. Further, district has significant household industrial activity as evident from high proportion of household industry workers in comparison to state average.

⁴¹³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

⁴¹⁴<http://murshidabad.nic.in/location.htm>



16.13.3.2 Estimation of Supply of Manpower in Murshidabad

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Murshidabad is expected to contribute significantly to the incremental working age group population over the next decade adding 17.13 lakh people to working age group. Considering the limited availability within Murshidabad to match the incremental working age population, suitable skill training initiatives can address the issue of employing this population outside the district.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Murshidabad	8048451	5384414	2833417	2348825	1713861
West Bengal	99530929	66586192	34291889	31828200	18481360

16.13.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Murshidabad has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Murshidabad. According to the estimates, in the next 5 years, Murshidabad is expected to witness an incremental manpower requirement of over 3.28 lakhs ⁴¹⁵ which is expected to normalize to 2.72 lakhs ⁴¹⁶ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

⁴¹⁵ KPMG Estimates on Incremental Manpower Requirement

⁴¹⁶ KPMG Estimates on Incremental Manpower Requirement

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	9841	NA	NA	9841	8628	NA	NA	8628	18469
Animal Husbandry	44597	NA	NA	44597	37165	NA	NA	37165	81762
Pisciculture	713	NA	NA	713	408	NA	NA	408	1121
Agro based & Food Processing	520	416	104	1040	460	368	92	920	1960
Iron & Steel	325	260	65	650	288	230	58	575	1225
Jute & Textiles	455	364	91	910	403	322	81	805	1715
MSME (Manufacturing /Assembling/Processing)	14453	8431	1204	24088	12080	7047	1007	20133	44221
Repairing & Maintenance	4053	2364	338	6755	3377	1970	281	5629	12384
Construction	88799	13454	5382	107635	68112	18163	4541	90816	198451
Healthcare	19066	2333	4241	25641	20539	2513	4568	27621	53262
Transportations and Logistics	11784	1704	710	14198	9766	1412	588	11766	25964
Retail	57119	8258	3441	68818	41126	5946	2477	49549	118367
Hospitality	2629	939	188	3756	2552	911	182	3646	7402
Communication	2508	1048	187	3743	2078	868	155	3102	6845
Banking and Financial Services	5039	593	296	5928	4678	550	275	5504	11432
Education and Training	3334	2631	3788	9753	2223	1754	2525	6502	16255

16.13.4 Human Resource Development Scenario in the District

16.13.4.1 Current State of Workforce Development

Concentration of higher education institutes in Murshidabad is marginally lower than the state average.

College of Textile Technology, Murshidabad College of Engineering & Technology and Bengal Sericulture Training Institute Berhampore, are key higher education institutes in the district. Comparison of higher education infrastructure in Murshidabad with West Bengal is presented in the table.

Category of College	West Bengal	Murshidabad
General Degree	452	26
BEd	129	11
Physical Education	20	3
Law	26	2
Music	2	–
Art	4	–
Engineering & Technology	85	4
Business Management & Hotel Management	42	–
Total	760	46
Density(Colleges per Thousand Population)	0.83	0.65

Murshidabad has six polytechnic universities, among the highest in the districts of West Bengal. However accessibility of vocational education among the least with five vocational training institutes accounting to a total trainin capacity of 260. Details of vocational education infrastructure in Murshidabad is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Murshidabad	3		2	5	204		56	260	0.04

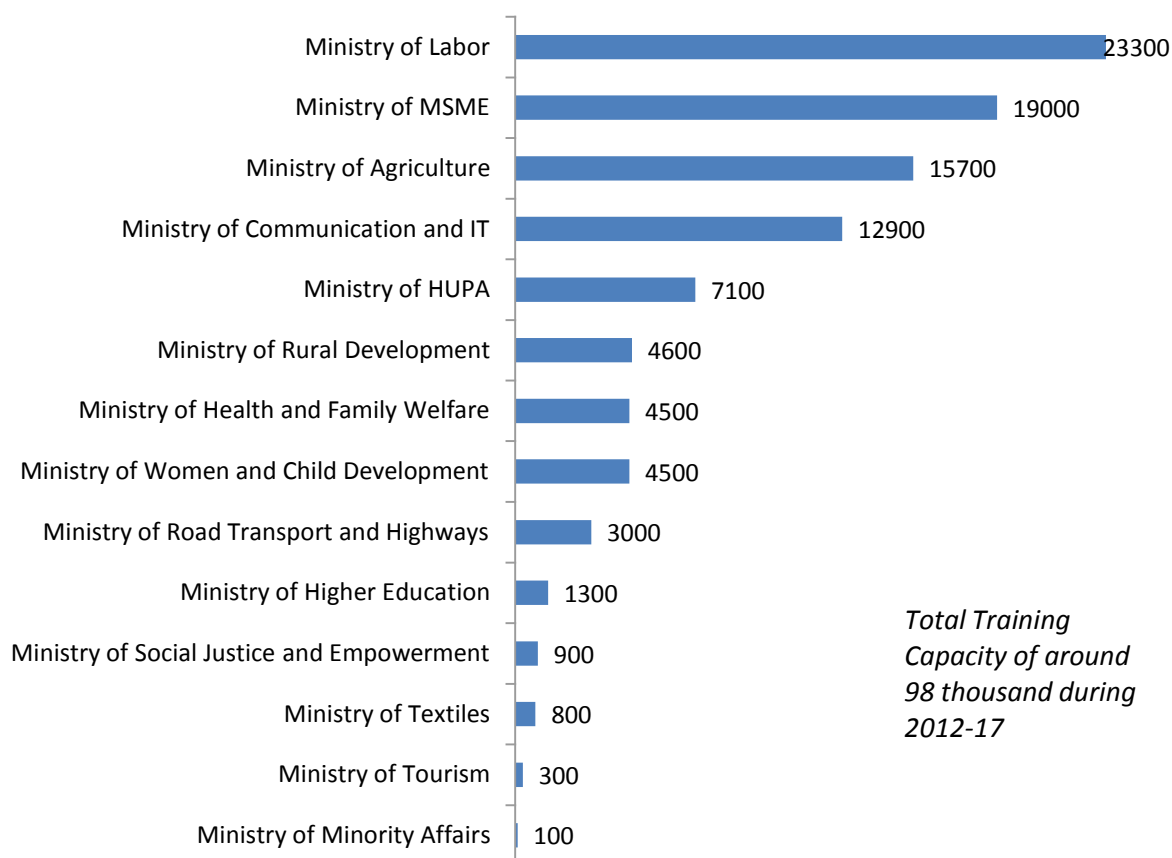
Six employment exchanges functioning in the district have a live register of over 3,45,000. However, placement rates were very poor with minimal private participation⁴¹⁷.

16.13.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 98 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour, Ministry of MSME and Ministry of Agriculture have large training mandates in the district. Murshidabad contributing a significant share of MSME units to the overall state has potential for up skilling workers in these units to certify and upgrade their skills matching the emerging industry trends.

⁴¹⁷ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in Murshidabad during 2012 -17



16.13.5 District Specific Recommendations

Murshidabad has opportunity in direct training of manpower to the extent of 3.28 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- High employment potential in MSME units
- Manpower human resource requirement limited to Agro Processing, Jute/Textile, Iron & Steel
- Potential for development of Agri-Allied Activities like Sericulture, Animal Husbandry

Considering these factors, the proposed action plan for stakeholders in skill development in Murshidabad district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting placement outside the district
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Sericulture ○ Animal Husbandry
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Agro Processing ○ Jute/Textile ○ Iron & Steel
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Agro Processing ○ Jute/Textile ○ Iron & Steel ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.14 Skill Gap Assessment of Nadia District

16.14.1 Social Profile

16.14.1.1 Demographics

Nadia has a population of 51.68 lakhs with a contribution of 72.19 rural population as per 201 Census.⁴¹⁸ The district is among highly concentrated regions in the state with a population density of 1316 persons per sq. km in comparison to state average of 1029 persons per sq.km⁴¹⁹. However, district population growth has decreased from 19.54 percent during 1991-2001 to 12.24 percent during 2001-11.⁴²⁰ Child (0-6) gender ratio at 955 girls per 1000 boys is marginally higher than adult gender ratio of 947 females per 1000 males in 2011.⁴²¹ While the gender composition is moderately balanced in urban areas it is more biased rural areas. Reserved categories in the district account for 32.1 percent of total district with a high proportion of Scheduled Castes⁴²².

16.14.1.2 Literacy

The district has marginally higher literacy rate of 75.58 percent in comparison to state average of 73.79 percent.⁴²³ During 200-1 literacy rates have increased significantly from 66.14 percent to current levels.⁴²⁴ The district has 4384 K-12 institutions⁴²⁵ with 90.83 percent⁴²⁶ share of government schools.⁴²⁷ Nadia has least drop out rates among all districts of West Bengal at both primary and upper primary levels indicating the impact of mass education schemes during recent years. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Nadia	418188	200	0.05%	483439	1115	0.23%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.14.2 District Economy

Nadia is a moderate economy in West Bengal. District economy has witnessed a lower lesser growth in comparison to overall state. During the period between 2001-02 and 2006-07 district income registered a cumulative growth rate of 8.85 percent⁴²⁸ as against state average of 11.65 percent⁴²⁹. District economy is predominantly tertiary driven with a marginal contribution from secondary sector. Sub-Sector wise district income growth trends are presented in the chart.

⁴¹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴¹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²²http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

⁴²³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁵<http://www.dise.in/drc.htm>

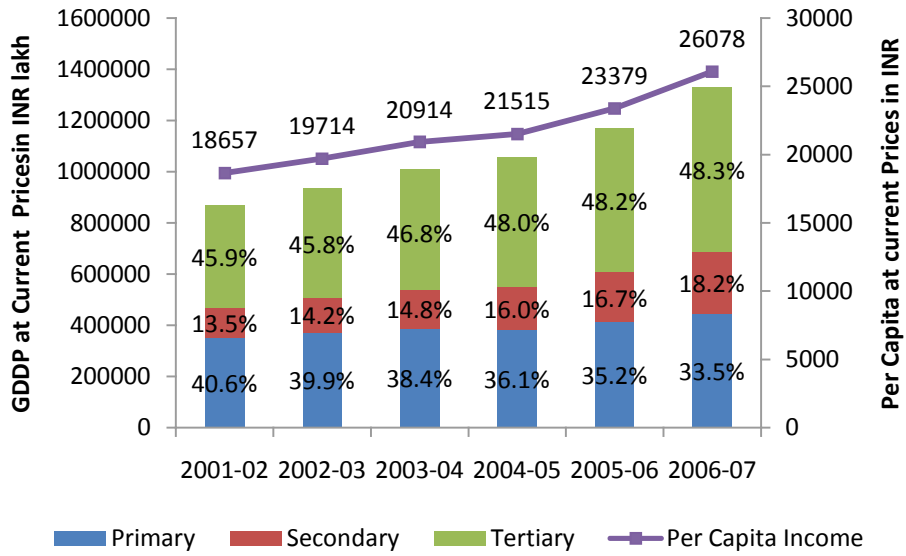
⁴²⁶<http://www.dise.in/drc.htm>

⁴²⁷<http://www.dise.in/drc.htm>

⁴²⁸<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

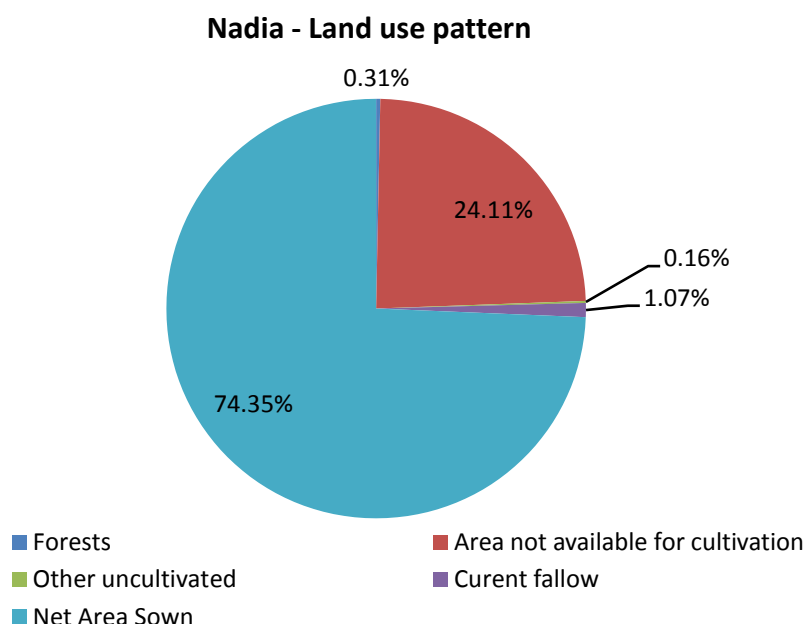
⁴²⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Nadia District Economic Performance



16.14.2.1 Agriculture and allied sectors

Agriculture and Allied activities is a prominent source of livelihood in rural parts of Nadia. The district has around 2,90,447 ha of net sown area accounting for 74.02 percent⁴³⁰ of total geographical area. Underground water through tube wells and motor pumps is major source of irrigation in Nadia⁴³¹. District land usage distribution is presented in the chart.



Rice, wheat and gram are some of the major crops of the district. Cereals, vegetables, fruits and oilseeds are key allied crops grown in Nadia. Mango, banana, litchi, papaya, tomato, cabbage, cauliflower, radish, okra and onion are prominent horticultural crops in the district. Conducive weather conditions for floriculture is an advantage for farmers providing them with ample opportunities for multiple cropping.

Nadia contributes to second highest share of State Jute output next to Murshidabad. The district is the largest producer of oilseeds⁴³² such as sesamum, rapeseed and mustard.

Pisciculture is a prominent allied livelihood activity in the district employing around 2.7 lakh people. The district has over 22,000 ha area available for pisciculture growth with only 60% under effective usage⁴³³. Fisheries Societies play a significant role in the overall promotion of such activities with around 92 societies operating in the district.

Sericulture activity has considerable prominence in Nadia with the district being fourth largest producer of Mulberry silk in West Bengal.

16.14.2.2 Industry

Nadia district is witnessing significant industrial growth over the recent years due to emergence of growth centers like Kalyani in the district. Government initiatives towards creating physical and industrial infrastructure like Kalyani (Phase I, II, III) and Rapid Transit System have boosted industrial development in Nadia. Phoenix Yule Ltd, Kalyani Yeast Ltd, Webel Electro Ceramics Ltd, UIC Wires Ltd, Supreme Paper Mills Ltd and Ramswarup Industrial Corpn are key industrial players in

⁴³⁰ Directorate of Agriculture, Govt of West Bengal

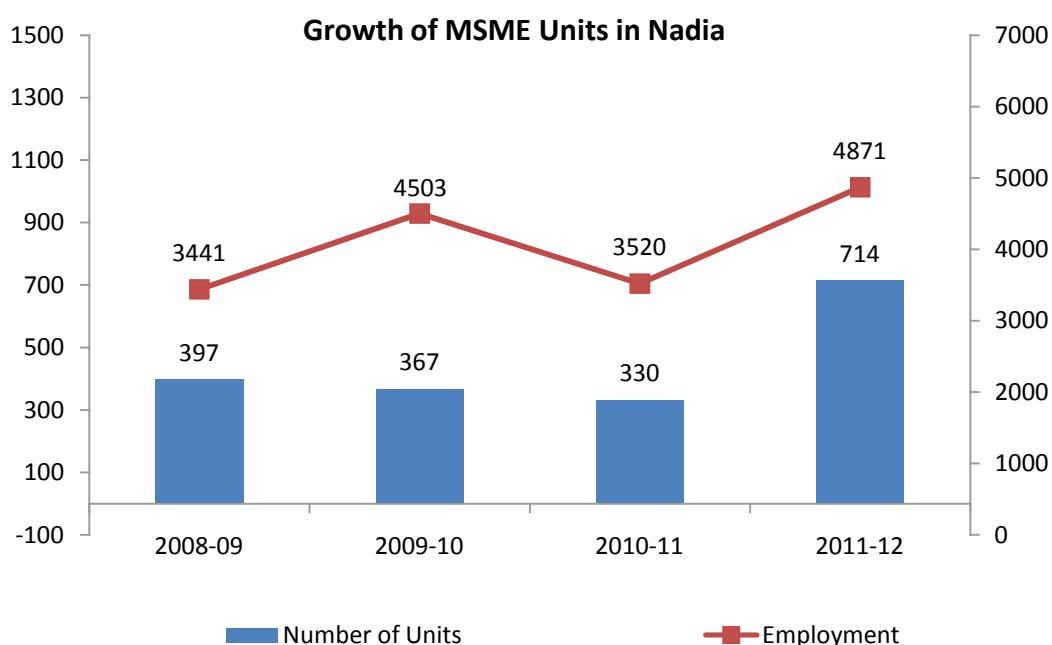
⁴³¹ KPMG Analysis

⁴³² "Livelihood Zones in West Bengal - A scenario for AWM interventions", Food and Agricultural Organization of the United Nations, Table 39, May 2011

⁴³³ <http://wbagrmarketingboard.gov.in>

the district. As per 2011 estimates there are 224 registered factories operating in Murshidabad district providing average daily employment of 15,372.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 1,808 units generating additional employment of over 16,335 during the period. Bras & Bell Metal, Clay Pottery and terracotta units resent in the prominent MSME units in Nadia. District also has unique tradition of making earthen sculptures by the local artisans. Employment growth trends in MSME segment are presented in the chart.



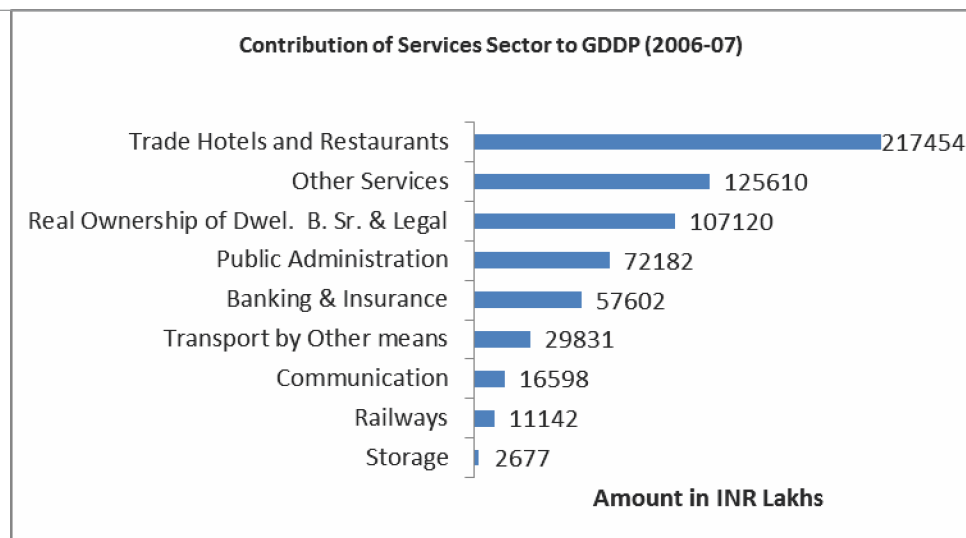
Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Nadia district.

Existing Clusters	Clusters Identified for Promotion
(i) Brass & Bell metal, (ii) Gold & Silver Ornaments (iii) Clay Pottery and terracotta.	Brass & Bell Metal, Gold & Silver

16.14.2.3 Services Sector

Service sector has a key role to play in the economy of Nadia. Sector has contributed to 48.26 percent⁴³⁴ of GDDP in the year 2006-07 witnessing a growth of 9.9 percent CAGR in the period between 2001-02 and 2006-07. Being a district with low percapita income predominant services activities are predominantly un-organized. Sub sector wise breakup of services income is presented in the chart.

⁴³⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Nadia has some key tourist attractions witnessing tourist visits from surrounding regions. ISKCON temple at Mayapur is a famous tourist destination in the district. Shantipur, Nabadwip, Shivaniwas and Krishnanagar⁴³⁵ are some of the other important tourist places. Palashi (Plassey), famous for “Battle of Plassey” is also located in the district. Nadia also houses Bethuadahari Wildlife Sanctuary.

Kolkata has the highest penetration of banking and financial services measured as a percentage of GDDP at 11.57 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. High penetration of banking and financial services would drive significant NBFC growth over the next decade. In the financial space, the number of bank branches of the district has grown by 5.42 percent CAGR between 2006 and 2011⁴³⁶. The district predominantly has nationalized banks. The credit given by the banks have grown at the rate of 16.84 percent CAGR and the bank-deposits have had a growth of 25.35 percent CAGR in the past five years denoting improvement in standard of living⁴³⁷.

Healthcare coverage in terms of population served per bed at 779 persons per bed is higher than the state average of 851 persons per bed. However, participation of private healthcare institutions is limited. District has 47 PHCs and 17 CHCs along with 469 Sub centers⁴³⁸. Being a district with low private participation, significant private investments are expected in the sector over the next decade. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Nadia											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	550	1	700	2	350	4	706	3	1955	14	450

⁴³⁵<http://nadia.gov.in/Tourism-Details/tourism-details.html#2>

⁴³⁶<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁴³⁷<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁴³⁸<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
3	30	47	380	3	345	0	0	1	25	80	1145
Total no of hospitals and beds		159					6636				

Contribution of railways to GDDP has grown at 8.7 percent CAGR and that of roadways & other transport had 11.8 percent CAGR during 2001-02 and 2006-07⁴³⁹. Nadia has 117 km of national highway spread with NH 34 passing through the district connecting Dum Dum and Dakhola⁴⁴⁰. The district has a total of 230 km of rail route length with direct connectivity to Kolkata.

16.14.3 Workforce Distribution in the district

16.14.3.1 Current Employment Scenario in Nadia

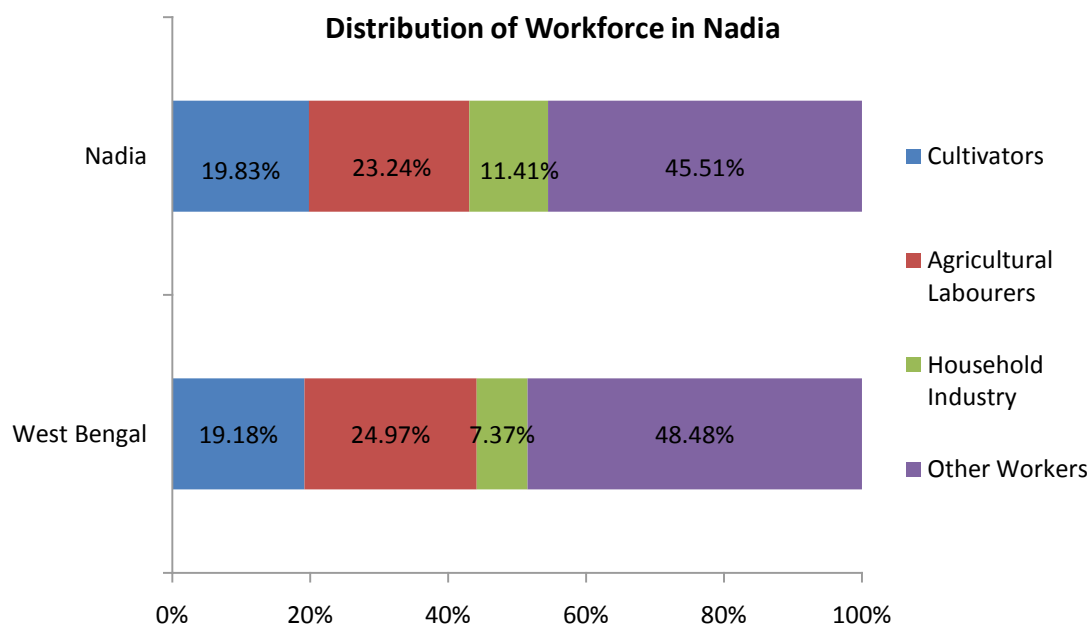
Work Participation Rate (WPR) in the district (35.09 percent) is marginally lower than the state average of 36.77 percent. Further, district has lower rural participation rates than the urban regions, which is different from trend observed in most of the other district of West Bengal indicating dearth of opportunities at rural level. Female participation is uniformly low across rural and urban areas.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Nadia –Rural	34.75%	4.91%	23,65,439	8,39,310	15,26,129
Nadia -Urban	36.33%	3.27%	6,23,683	2,26,784	3,96,899
Nadia	35.09%	4.56%	29,89,122	10,66,094	19,23,028
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Distribution of Workforce Participation is comparable to that of the state average with marginally higher presence of household industrial workers.

⁴³⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁴⁰http://nadia.gov.in/District_Profile/District_Profile-Details-page1/district_profile-details-page1.html#8



16.14.3.2 Estimation of Supply of Manpower in Nadia

The district wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Nadia is a moderate human resource growth district adding 9.68 lakh people to working age group. Significant part of this incremental population is expected to displace towards urban parts of Nadia along with migration to Howrah, Kolkata for employment.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Nadia	5568503	3725329	1994462	1653355	968825
West Bengal	99530929	66586192	34291889	31828200	18481360

16.14.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Nadia has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Nadia. According to the estimates, in the next 5 years, Nadia is expected to witness an incremental manpower requirement of over 2.37 lakhs⁴⁴¹ which is expected to normalize to 1.86 lakhs⁴⁴² during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

⁴⁴¹ KPMG Estimates on Incremental Manpower Requirement

⁴⁴² KPMG Estimates on Incremental Manpower Requirement

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	536	NA	NA	536	470	NA	NA	470	1006
Animal Husbandry	29785	NA	NA	29785	24821	NA	NA	24821	54606
Pisciculture	15120	NA	NA	15120	8640	NA	NA	8640	23760
Agro based & Food Processing	304	243	61	608	249	199	50	498	1106
Iron & Steel	338	270	68	676	277	221	55	553	1229
Auto/Engineering	844	676	169	1689	691	553	138	1383	3072
Electrical & Electronics	203	162	41	405	166	133	33	332	737
MSME(Manufacturing /Assembling /Processing)	6576	3836	548	10959	5496	3206	458	9160	20119
Repairing & Maintenance	1844	1076	154	3073	1537	896	128	2561	5634
Construction	41460	6282	2513	50255	31801	8480	2120	42402	92657
IT&ITES	NA	2322	8478	10800	NA	1548	5652	7200	18000
Healthcare	13057	1598	2904	17560	9611	1176	2138	12925	30485
Transportations and Logistics	10745	1554	647	12946	8905	1287	536	10729	23675
Retail	47625	6886	2869	57380	34290	4958	2066	41313	98693
Hospitality	8742	3122	624	12488	8485	3030	606	12121	24609
Communication	3298	1378	246	4923	2733	1142	204	4080	9003
Banking and Financial Services	4176	491	246	4914	3878	456	228	4562	9476
Education and Training	167	132	2974	3273	111	88	1982	2182	5455

16.14.4 Human Resource Development Scenario in the District

16.14.4.1 Current State of Workforce Development

Concentration of higher education institutes in Nadia is marginally lower than the state average. IISER-Kolkata, Bidhan Chandra Krishi Vidyalyaya and Kalyani University are among the key institutes in the district. Comparison of higher education infrastructure in Nadia with West Bengal is presented in the table.

Category of College	West Bengal	Nadia
General Degree	452	18
BEd	129	7
Physical Education	20	1
Law	26	2
Music	2	–
Art	4	–
Engineering & Technology	85	5
Business Management& Hotel Management	42	3
Total	760	36
Density(Colleges per Thousand Population)	0.83	0.70

Accessibility of vocational education in the district is better than the state average. B.P.C. Institute of Technology in Krishnagar and J.I.S School of Polytechnic in Kalyani are two Polytechnic Colleges in Nadia. Seven vocational education institutions in the district have a total trainin capacity of 1374.Details of vocational education infrastructure in Nadia is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Pivate ITI	Total	Govt ITI	Govt ITC	Pivate ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Nadia	2	1	4	7	936	222	216	1374	0.27

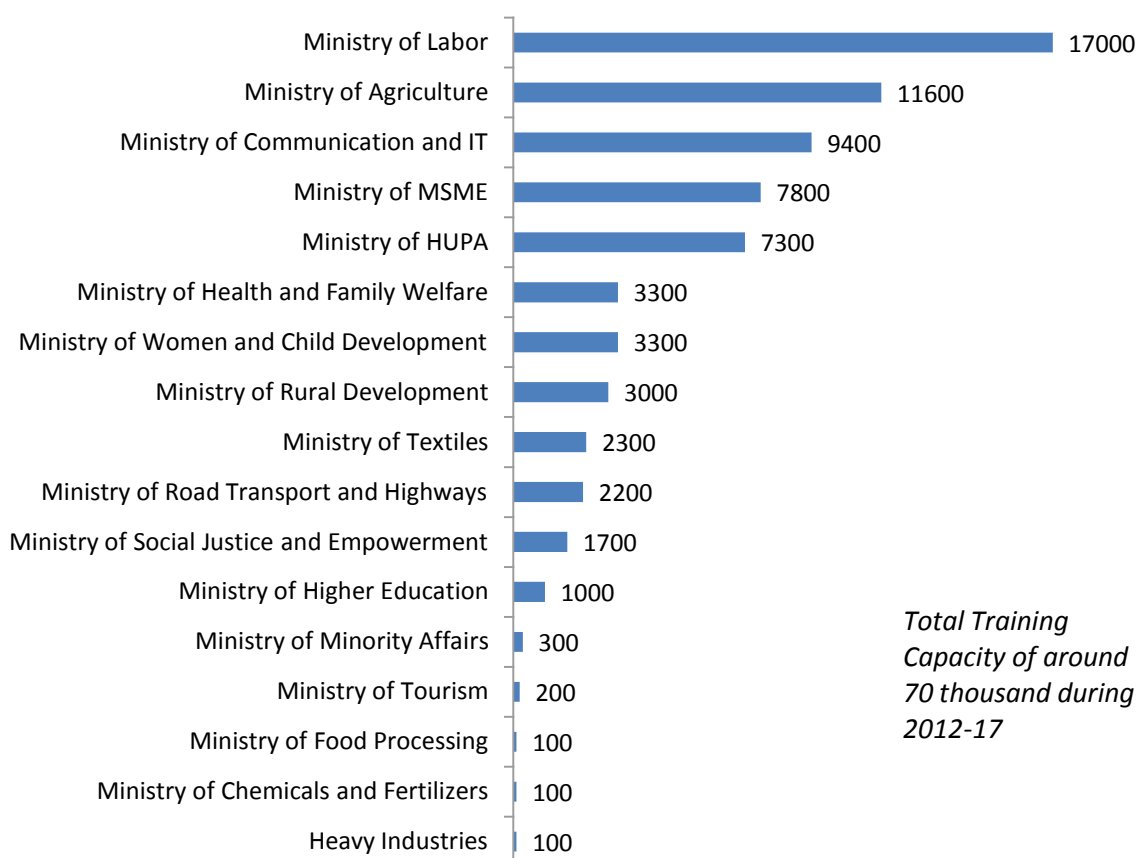
The district has three employment exchanges. However, placement rates were very poor with minimal private participation⁴⁴³.

⁴⁴³ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.14.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 70 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labor and Ministry of Agriculture have significant training mandates in the district. Nadia being an industrially less developed district has Government training focus on livelihood promotion.

Potential Training Capacity in Nadia during 2012-17



16.14.5 District Specific Recommendations

Nadia has opportunity in direct training of manpower to the extent of 2.37 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Considerable employment potential in Auto Engineering industries
- Potential for development of Agri-Allied Activities like Animal Husbandry, Pisciculture
- Significant manpower demand for unorganized services sectors

Considering these factors, the proposed action plan for stakeholders in skill development in Nadia district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Auto/Engineering
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Pisciculture ○ Animal Husbandry
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Auto/Engineering ○ Jute/Textile ○ Iron & Steel
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Auto/Engineering ○ Jute/Textile ○ Iron & Steel ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.15 Skill Gap Assessment of North 24 Parganas District

16.15.1 Social Profile

16.15.1.1 Demographics

North 24 Parganas is the most populous district in West Bengal with a population of over 1 crore as per 201 estimates. The district population has significantly high urban composition accounting for 57.6 percent of total population⁴⁴⁴. Convergence of parts of the districts with Kolkata Municipal Corporation region is a key reason for high urban share of population. Considering the urban nature of population district demographic concentration is significantly high making it third most densely populated districts of West Bengal. As per 201 Census, North 24 Parganas has a population density of 2463 persons per sq.km which in comparison to state average of 1029 persons per sq. km⁴⁴⁵. Gender composition of population has witnessed varied changes across age groups during 2001-11. While adult gender ratio has increased from 926 females per 1000 males in 2001 to 949 females per 1000 males in 2011, child (0-6 age group) gender ratio decreased from 958 girls per 1000 boys to 947 girls per 1000 boys⁴⁴⁶ during the same period. Reserved categories account for 22.9⁴⁴⁷ percent of total district population comparable to the state average.

16.15.1.2 Literacy

The district has a high literacy rate of 84.95 percent in comparison to state average of 77.08 percent⁴⁴⁸. As per 2011 estimates, North 24 Parganas has 5752 K-12 schools⁴⁴⁹ with 97.62 percent⁴⁵⁰ contribution of Government schools. Dropout rates across education levels are moderate in the district well under state averages. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
North 24 Parganas	811196	3497	0.43%	937767	11757	1.25%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.15.2 District Economy

North 24 Parganas is a key district in West Bengal economy. The district accounts for highest share of overall state economy among 19 districts of the state. The district economy has grown at a higher cumulative rate of 13.29 percent⁴⁵¹ in the period between 2001-02 and 2006-07 as against 11.65 percent⁴⁵² of state average. Tertiary sector constitutes major

⁴⁴⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

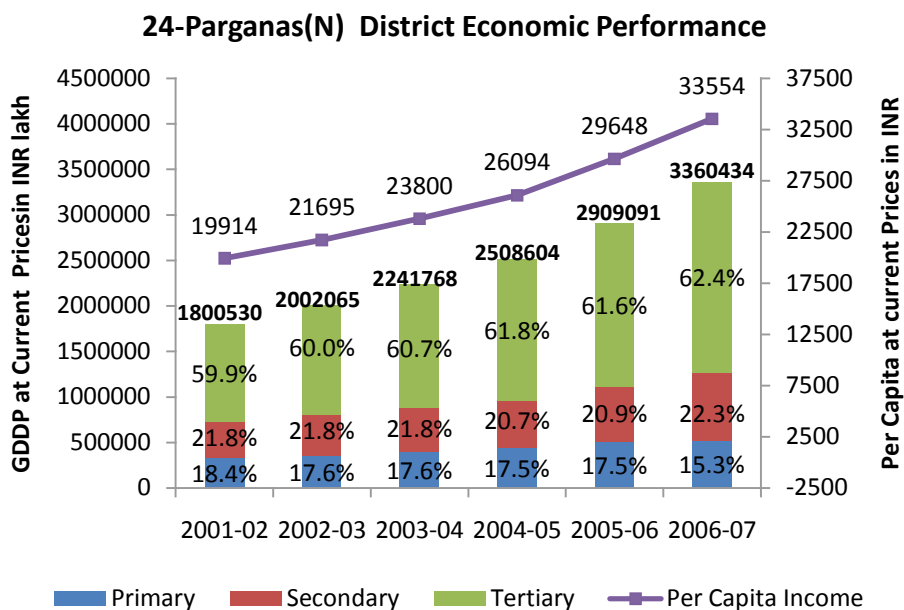
⁴⁴⁹<http://www.dise.in/drc.htm>

⁴⁵⁰<http://www.dise.in/drc.htm>

⁴⁵¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

⁴⁵²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

share of district income indicating predominantly urban nature of the economy. The district contributes to significant share of overall state secondary sector income. Sub-Sector wise district income growth trends are presented in the chart.

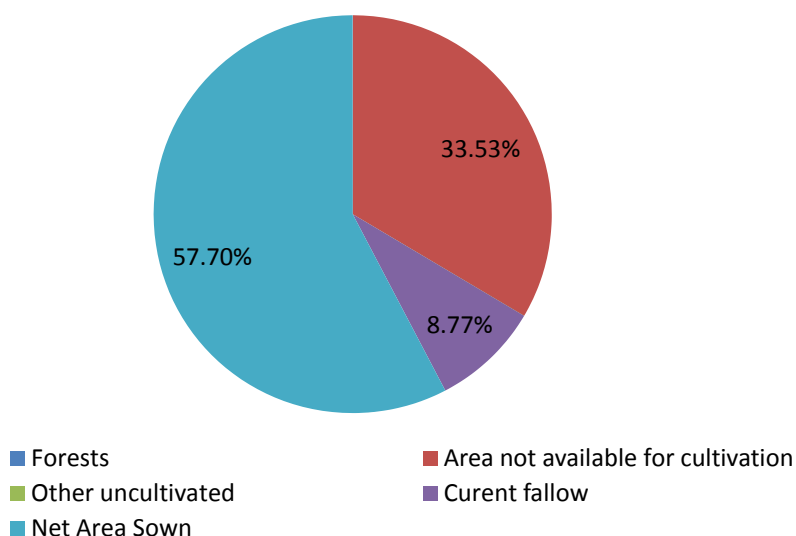


16.15.2.1 Agriculture and allied sectors

North 24 Parganas has significant dependence on Agriculture and Allied activities. District has around 2,23,017 ha of net sown area accounting for 66.6 percent of total geographical area. As high as 98.5 percent of net sown area is exposed to multiple cropping⁴⁵³ indicating the effective implementation of irrigation schemes to ensure availability of water throughout the year. District farmers adapt to tide-based agriculture owing to frequent water logging during the rainy months. Tide based agriculture provides a great potential for agricultural water management in the North 24 Parganas. District land usage distribution is presented in the chart.

⁴⁵³ Directorate of Agriculture, Govt of West Bengal

North 24 Paraganas - Land use pattern



Rice is the key agricultural crop in the district accounting for 46 percent⁴⁵⁴ of net sown area. Over the years district cropping pattern has witnessed gradual shift away from rice. Production of rapeseed, mustard, jute, wheat has witnessed an increasing trend in the district. Mango, papaya, guava, tomato, cabbage, cauliflower, radish, okra and onion are key horticulture crops in the North 24 Parganas. The district is known for coconut cultivation.

Jute is a prominent commercial crop grown in the district accounting for 10.5 percent⁴⁵⁵ of net sown area⁴⁵⁶. The district is among major producers of jute in the state along with Murshidabad and Nadia.

Fishing industry contributes to 32.85 percent⁴⁵⁷ of primary sector income in 2006-07 and is a key allied activity in the district. North 24 Parganas accounts for 37 percent⁴⁵⁸ of cultivable water of West Bengal making it a potential pisciculture hub. Situated in Ganges-Brahmaputra delta with proximity to rivers like Ichhamati, Jamuna, and Bidyadhari district has tremendous scope for fisheries development. North 24 Parganas has the highest net area under effective pisciculture among districts of West Bengal⁴⁵⁹.

16.15.2.2 Industry

North 24 Parganas with urban clusters like Salt lake & Rajarhat is a key industrial district in West Bengal. Convergence of parts of district are with Kolkata Municipal Corporation has helped the growth of industries in these areas. Multi Product SEZ is operating in the district along with Software SEZs in Slat lake city. Eastern Spinning Mills Ltd, Texmaco Ltd, Electro Steel Ltd, Electro Steel Ltd, Emami Ltd, Vishnu Cotton Mills Ltd, Allied Resin & Chemicals Ltd, India Foils Ltd, Himani Ltd are key industrial players in the district. As per 2011 estimates there are 7,188 registered factories operating in Paragnas districts (North & South) providing average daily employment of 4, 31,317.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 6,321 units generating additional employment of over 61,698 during the period. Zari Embroidary work, Agarbatti Making, Coir Brush Making units

⁴⁵⁴ Directorate of Agriculture, Govt of West Bengal

⁴⁵⁵ Directorate of Agriculture, Govt of West Bengal

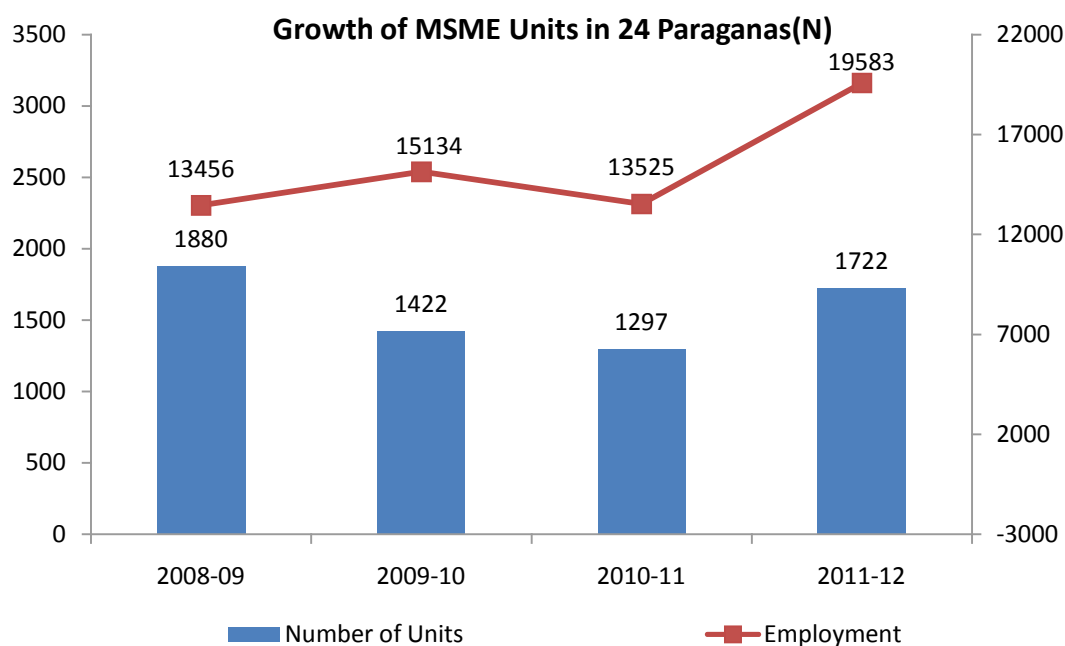
⁴⁵⁶ Directorate of Agriculture, Govt of West Bengal

⁴⁵⁷ Directorate of Pisciculture, Govt of West Bengal

⁴⁵⁸ Directorate of Pisciculture, Govt of West Bengal

⁴⁵⁹ Directorate of Pisciculture, Govt of West Bengal

are prominent in MSME category of industries in North 24 Parganas. Employment growth trends in MSME segment are presented in the chart.



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in North 24 Parganas district.

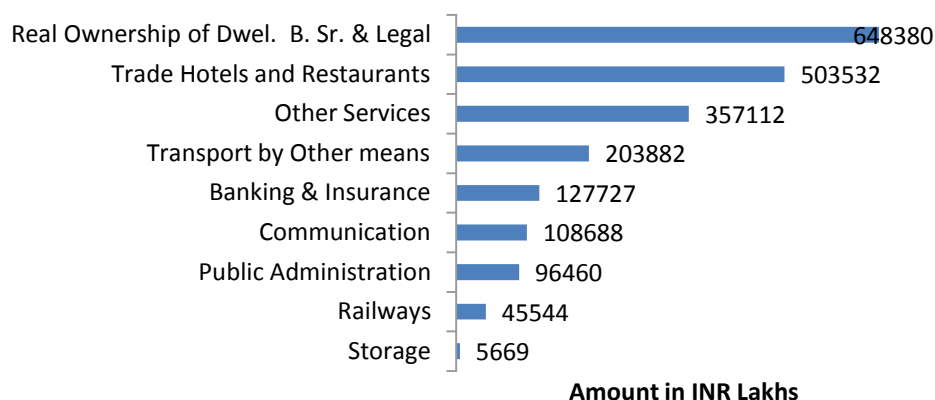
Existing Clusters	Clusters Identified for Promotion
(i) Zari Work, (ii) Silver Filigree, (iii) Surgical instruments, (iv) Coir Brush Making, (v) Agarbati (vi) Fire Works	Zari Embroidery

16.15.2.3 Services Sector

Convergence of North 24 Parganas with Kolkata Metropolitan has resulted in significant growth of organized services activities in the district. Retail, healthcare, education, hospitality are some of the emerging sectors in the district economy. Services sector contributed to 62.4 percent⁴⁶⁰ of GDDP in the year 2006-07 witnessing a 14.2 percent CAGR in the period between 2001-02 and 2006-07. Sub sector wise breakup of services income is presented in the chart.

⁴⁶⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Contribution of Services Sector to GDDP (2006-07)



Property markets, real estate and legal matters segment has recorded highest sumulative growth of 23.3 percent⁴⁶¹ among the districts of West Bengal during 2001-02 and 2006-07. The district houses two important satellite townships: Salt Lake City and New Town. Salt Lake City is an important commercial hub of the district with shopping malls such as City Centre, INOX multiplex, RDB Big Cinemas multiplex, an amusement park call Nicco Park. Besides this The district has international five-star hotels like Swissotel Kolkata, Neotia Vista, ITC Sonar and Hyatt Regency. Tata's Ginger chain of hotels is in the pipeline, construction work of other five-star hotels such as Novotel and Westin is underway.

Among the tourist destinations in North 24 Parganas are Temple of Fame built by Lord Minto, Machranga Dwip, Parmadan Deer Park, a wildlife sanctuary, Chandraketugarh. District is proposed to house the Kolkata Museum of Modern Art, an open Maidan with an eco-park built around a water body.

District is information technology hub of West Bengal with leading IT/ITES Indian and multinational companies established in Saltlake IT Park. Around 1.2 Lakh people are employed in Sector V and Sector III of Saltlake city. Players like TCS, Accenture, Wipro, PwC, Deloitte, Cognizant Technology Solutions, IBM, Capgemini, Tech Mahindra, Ericsson Global Services, Genpact, Tata Interactive Systems, HCL Technologies, NIIT Technologies, HSBC Global Resourcing, Siemens IT Solutions and Services, Larsen & Toubro and Sun Microsystems present in the region.

While the district is emerging as a destination for key destination for infrastructure and commercial development in West Bengal, penetration of Banking & Financial services is low. North 24 Parganas has a low penetration of banking and financial services measured as a percentage of GDDP at 3.8 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown at 7.15 percent CAGR between 2006 and 2011⁴⁶². Bank credit given by has witnessed a growth of 27.92 percent CAGR and the bank-deposits had a 25.24 percent CAGR over the last five years⁴⁶³. Low penetration of banking and financial services and high level of economic activity in the district would drive significant NBFC growth over the next decade.

Healthcare coverage in terms of population served per bed at 1,168 persons per bed is lower than the state average of 851 persons per bed. District houses well known private and government hospitals like AMRI, Anandalok Hospital, Kolkata Heart Research Institute and Columbia-Asia, Seva, Tata Cancer Centre, UMRI (Uma Medical related Institute), Zoom

⁴⁶¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁶²<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

⁴⁶³<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

healthcare. Overall district has 52 PHCs and 22 CHCs along with 742 Sub centers⁴⁶⁴. Being a district with low healthcare coverage and significant economic growth, private healthcare institutions have significant growth potential in North 24 Parganas. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in North 24 Parganas											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	131	1	600	4	820	8	789	1	0	18	565
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
4	60	52	408	6	603	11	324	3	272	238	4063
Total no of hospitals and beds		347					8635				

Contribution of railways to GDDP has increased by 9 percent CAGR and that of roadways & other transport has increased by 13.4 percent CAGR during 2001-02 and 2006-07⁴⁶⁵. The district is well connected through roadways with NH 34 and NH 35 passing through the district. NH 34 connects North 24 Parganas to Dalkhola merging into NH 31 leading to Siliguri and several towns in the North-East. NH 35 connects the district to Bangladesh. Proximity to leading junction like Howrah and Sealdah terminals has helped the growth of transportation services. Netaji Subhas Chandra Bose International Airport, Kolkata is close to New Town Township in North 24 Parganas providing access to air connectivity.

16.15.3 Workforce Distribution in the district

16.15.3.1 Current Employment Scenario in North 24 Parganas

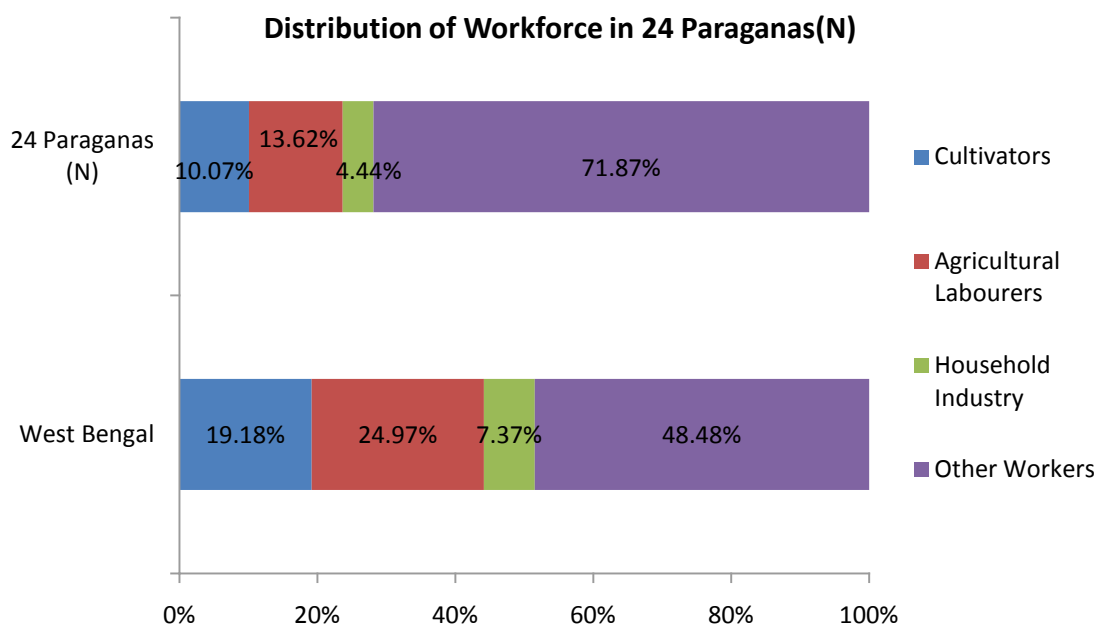
Work Participation Rate (WPR) in the district (33.45 percent) is lower than the state average of 36.77 percent. Further, district has lower rural female participation indicating a need to address the issue to ensure gender inclusive employment growth.

⁴⁶⁴ <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

⁴⁶⁵ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
North 24 Parganas -Rural	33.65%	5.77%	27,09,400	9,65,558	17,43,842
North 24 Parganas -Urban	33.28%	2.67%	32,36,726	11,71,706	20,65,020
North 24 Parganas	33.45%	4.09%	59,46,126	21,37,264	38,08,862
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Distribution of Workforce Participation indicates importance of services sector in the district with limited industrial and agricultural employment opportunities.



16.15.3.2 Estimation of Supply of Manpower in North 24 Parganas

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. North 24 Parganas is expected to contribute to a significantly high share of incremental working age population during 2012-22 adding 16.94 lakh people to working age group. Significant part of this incremental population is expected to displace towards urban parts of North 24 Parganas along with migration to Howrah, Kolkata for employment.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply (2012-22)
North 24 Parganas	10902425	7293723	3710426	3075842	1694024
West Bengal	99530929	66586192	34291889	31828200	18481360

16.15.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of North 24 Parganas has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in North 24 Parganas. According to the estimates, in the next 5 years, North 24 Parganas is expected to witness an incremental manpower requirement of over 6.29 lakhs ⁴⁶⁶ which is expected to normalize to 5.24 lakhs ⁴⁶⁷ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	40	NA	NA	40	40	NA	NA	40	80
Animal Husbandry	36225	NA	NA	36225	30188	NA	NA	30188	66413
Pisciculture	1488	NA	NA	1488	850	NA	NA	850	2338
Agro based & Food Processing	364	291	73	728	298	238	60	596	1324
Jute & Textiles	1092	874	218	2184	894	715	179	1788	3972
Auto/Engineering	4368	3494	874	8736	3576	2861	715	7152	15888
Rubber & Plastic Products	1456	1165	291	2912	1192	954	238	2384	5296
MSME (Manufacturing /Assembling /Processing)	24836	14488	2070	41394	20759	12109	1730	34598	75992
Repairing &	6964	4063	580	11607	5804	3386	484	9673	21280

⁴⁶⁶ KPMG Estimates on Incremental Manpower Requirement

⁴⁶⁷ KPMG Estimates on Incremental Manpower Requirement

Maintenance									
Construction	127278	19285	7714	154276	97627	26034	6508	130169	284445
IT&ITES	NA	13545	49455	63000	NA	9030	32970	42000	105000
Healthcare	12821	1569	2852	17242	26673	3264	5933	35870	53112
Transportations and Logistics	62797	9079	3783	75659	52041	7524	3135	62700	138359
Retail	110280	15944	6643	132867	79401	11480	4783	95664	228531
Hospitality	20242	7229	1446	28917	19647	7017	1403	28067	56984
Communication	21598	9026	1612	32236	17899	7480	1336	26715	58951
Banking and Financial Services	9261	1090	545	10895	8598	1012	506	10115	21010
Education and Training	1938	1529	5768	9235	1292	1020	3846	6157	15392

16.15.4 Human Resource Development Scenario in the District

16.15.4.1 Current State of Workforce Development

Concentration of higher education institutes in North 24 Parganas is on par with the state average. Many reputed higher educational institutes such as the Indian Institute of Statistics, Aliah University, West Bengal University of Health Sciences and West Bengal National University of Juridical Sciences; are located in and near the North 24 Parganas region. Comparison of higher education infrastructure in North 24 Parganas with West Bengal is presented in the table.

Category of College	West Bengal	North 24 Parganas
General Degree	452	50
BEd	129	10
Physical Education	20	1
Law	26	1
Music	2	
Art	4	1
Engineering & Technology	85	11
Business Management& Hotel Management	42	8
Total	760	82
Density(Colleges per Thousand Population)	0.83	0.81

Accessibility of vocational education in the districts is among the least in West Bengal. District has four polytechnic colleges- Ramakrishna Mission Shilpapitha, Acharya Jagadish Chandra Bose Polytechnic, Kingston Polytechnic College, Elite Institute of Engineering, & Management. Details of vocational education infrastructure in North 24 Parganas is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
North 24 Parganas	3	2	3	8	136	84	164	384	0.04

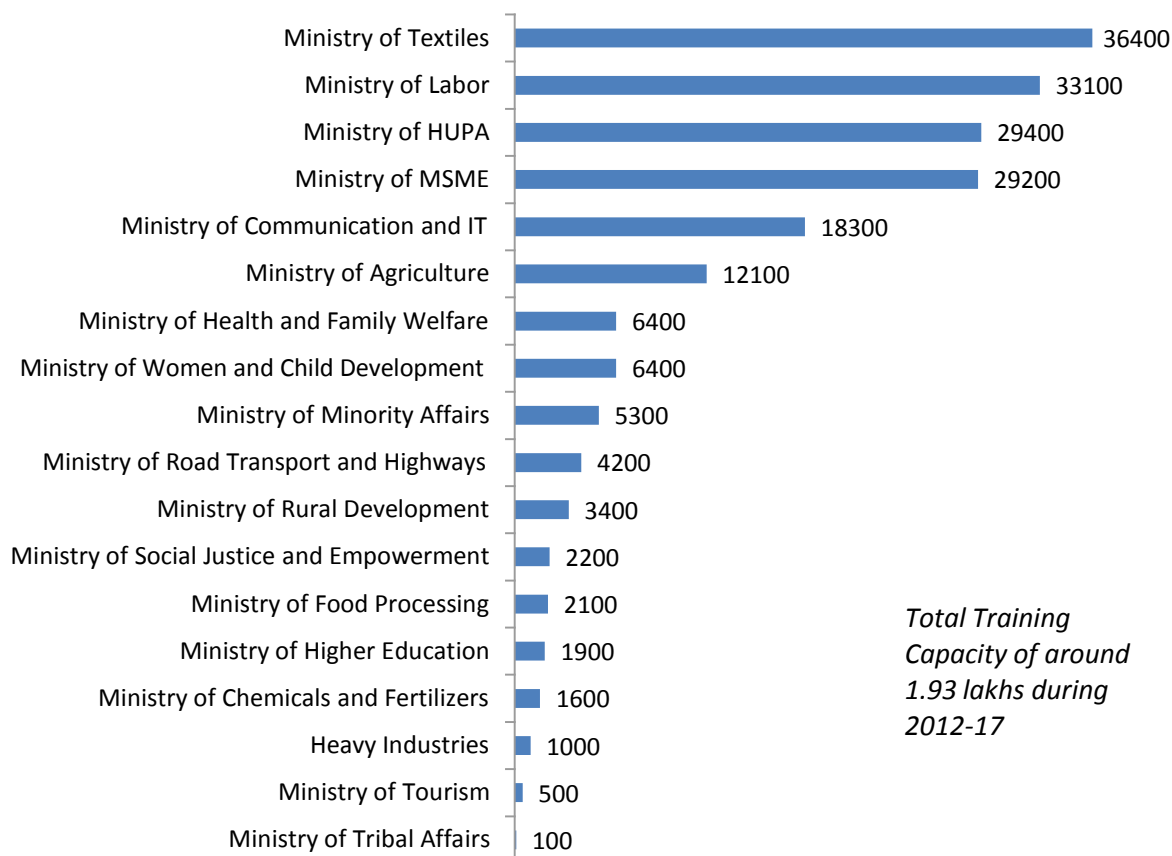
North 24 Parganas district has 4 employment exchanges with the largest live register in the state. However, placement rates were very poor with minimal private participation⁴⁶⁸.

16.15.4.2 Incremental Training Capacity in the District

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 1.93 lakh people in total can be trained incrementally during the five year period of 2012-17. North 24 Parganas has higher Government funded training mandate among the districts of West Bengal considering the large population base and industrial growth. Ministry of Labour Other Industries Ministries, Ministry of MSME and Ministry of HUPA have significant training mandates. District offer significant opportunities for private training providers in Scheme based training across sectors.

⁴⁶⁸ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in North 24 Paraganas during 2012 -17



16.15.5 District Specific Recommendations

North 24 Parganas has opportunity in direct training of manpower to the extent of 6.29 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Large employment potential in Auto-Engineering, Rubber & Plastics, Jute and Textile industries
- Potential for development of Agri-Allied Activities like Animal Husbandry
- Significant manpower demand for construction related activities
- Considerable manpower requirement for IT/ITES, Organized Retail industries in urban regions.

Considering these factors, the proposed action plan for stakeholders in skill development in North 24 Parganas district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ IT/ITES ○ Retail ○ Construction ○ Auto-Engineering
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry ○ Construction
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ IT/ITES ○ Retail ○ Construction ○ Auto-Engineering ○ Rubber & Plastics ○ Jute and Textile
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies <ul style="list-style-type: none"> ○ Retail ○ Construction ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.16 Skill Gap Assessment of Purulia District

16.16.1 Social Profile

16.16.1.1 Demographics

Purulia is among least populous districts in West Bengal. As per 2011 Census, with a population of 29.28 lakhs and a 87.25 percent share of rural population.⁴⁶⁹ Population density of the district is significantly low at 468 persons per sq. km which is in comparison to state average of 1029 persons per sq. km⁴⁷⁰. Adult gender ratio of Purulia at 955 females per 1000 males in 2011 is marginally higher than child (0-6) gender ratio of 947 girls per 1000 boys in 2011.⁴⁷¹ Declining child gender ratio from 964 girls per 1000 boys in 2001 is a key concern. Reserved categories occupy significant share of district population comprising 36.6 percent of total population.⁴⁷²

16.16.1.2 Literacy

Purulia has a low literacy rate of 65.38 percent in comparison to state average of 73.79 percent.⁴⁷³ As per 2001 estimates, district has 4243 K-12 institutions with 95.52 share of Government Schools. Purulia is among the districts with high dropout rates across age groups. Purulia accounts for nearly one sixth of total primary education dropouts indicating a need to strengthen mass education schemes within the district. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Purulia	230291	12308	5.34%	266224	12289	4.62%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.16.2 District Economy

Purulia is counted among the economically backward districts of West Bengal with a low contribution to state economy. The district economy has witnessed a lower growth in comparison to overall state. During the period between 2001-02 and 2006-07 district income registered a cumulative growth rate of 7.93 percent⁴⁷⁴ as against 11.65 percent of state average⁴⁷⁵. During 2001-02 and 2006-07 contribution from tertiary sector remained consistent while secondary sector contribution ascended with the sub sector growing at a CAGR of 17 percent⁴⁷⁶. Sub-Sector wise district income growth trends are presented in the chart.

⁴⁶⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁷⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁷¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

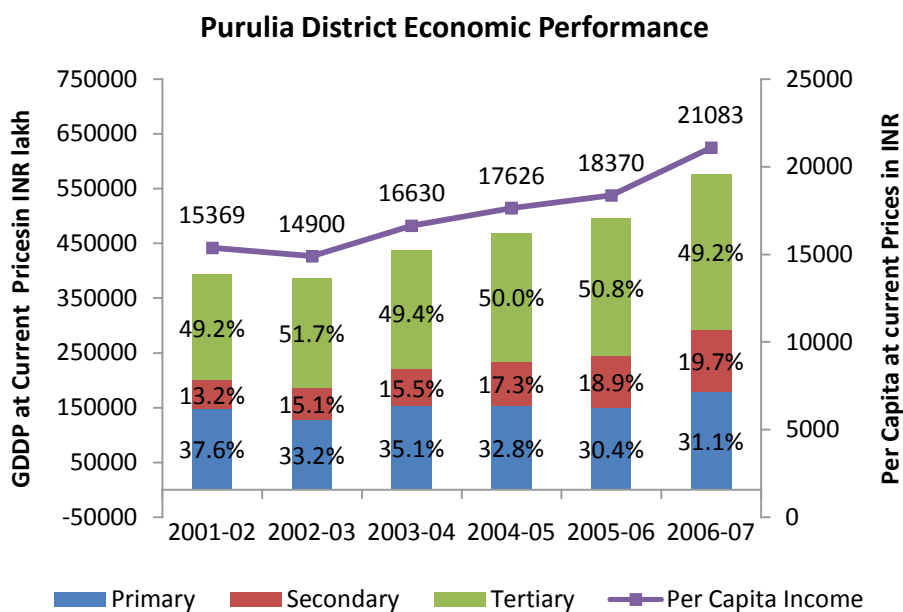
⁴⁷²http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

⁴⁷³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁷⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁷⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

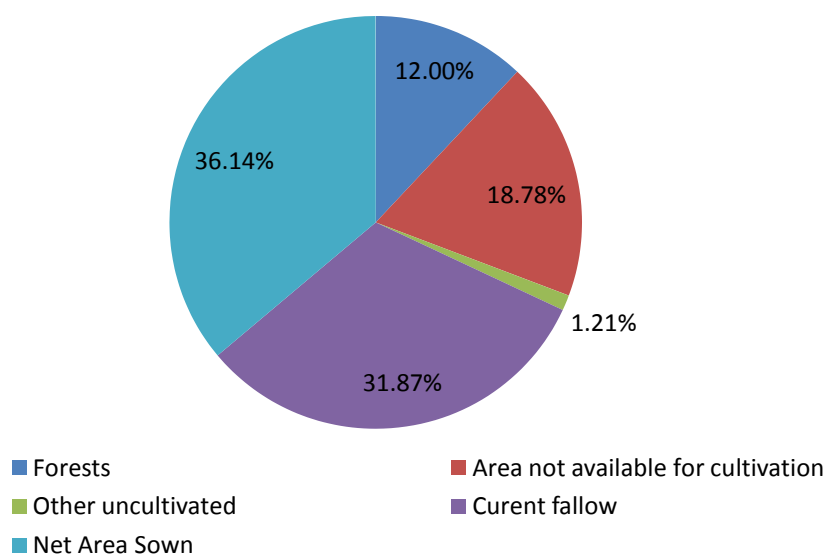
⁴⁷⁶<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



16.16.2.1 Agriculture and allied sectors

Purulia is predominantly an agrarian economy with around 2,26,134 ha of net sown area with lowest proportion of (36 percent⁴⁷⁷) of total geographical area available for cultivation among the districts of West Bengal. Further, only 17% of net sown area is exposed to multiple cropping⁴⁷⁸ owing to limited availability of irrigation facilities. Rain water is still predominant source of irrigation. The district land usage distribution is presented in the chart.

Purulia - Land use pattern



⁴⁷⁷ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

⁴⁷⁸ "Livelihood Zones in West Bengal - A scenario for AWM interventions", Food and Agricultural Organization of the United Nations, May 2011

The district has a forest cover of 12 percent marginally lower than state average of 13.52 percent⁴⁷⁹. Forest produce is a key allied activity in Purulia with availability of Timber and Firewood supporting allied handicraft industries in tribal blocks.

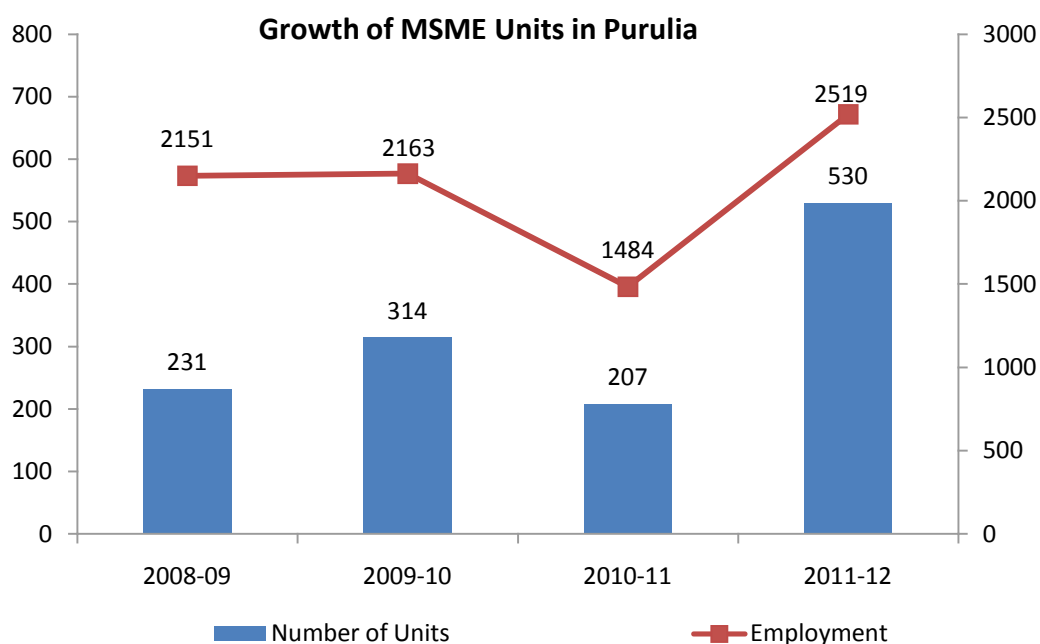
Rice is the key agricultural crop in the district accounting for 71.05 percent of net sown area in 2009-10⁴⁸⁰. Rice production in Purulia has witnessed significant variations over the years mainly due to poor irrigation facilities and lack of modernization in the farming techniques leading to reduced yield⁴⁸¹. The district has one of the lower yield rates in the state, along with South 24 Parganas and Jalpaiguri. Cultivation of groundnut is on the rise over the recent years in Purulia⁴⁸².

Pisciculture is prominent allied activity in Purulia contributing to 12.77 percent of primary sector income during 2006-07. District has around 19000 ha of net available land for pisciculture with 87 percent effective utilization⁴⁸³.

16.16.2.2 Industry

Purulia is among the mineral rich districts of West Bengal. China Clay, Coal, Granite, Phosphate, Limestone are prominent minerals available in the district. Though the district has significant mineral reserves, inadequate physical and industrial infrastructure has hampered the growth of Purulia into an investment destination. As per 2011 estimates there are 103 registered factories operating in Purulia providing average daily employment of 6,940. Damodhar Cement & Slag Ltd, Purulia Cements Pvt.Ltd, Purulia Packaging Pvt.Ltd are key players present in the district.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 1,282 units generating additional employment of over 8,317 during the period. Shellac Manufacturing, Hand Tools Making Units are prominent MSME category industries in Purulia. Employment growth trends in MSME segment are presented in the chart.



⁴⁷⁹ Directorate of Agriculture, Govt of West Bengal

⁴⁸⁰ Directorate of Agriculture, Govt of West Bengal

⁴⁸¹ Directorate of Agriculture, Govt of West Bengal

⁴⁸² Directorate of Agriculture, Govt of West Bengal

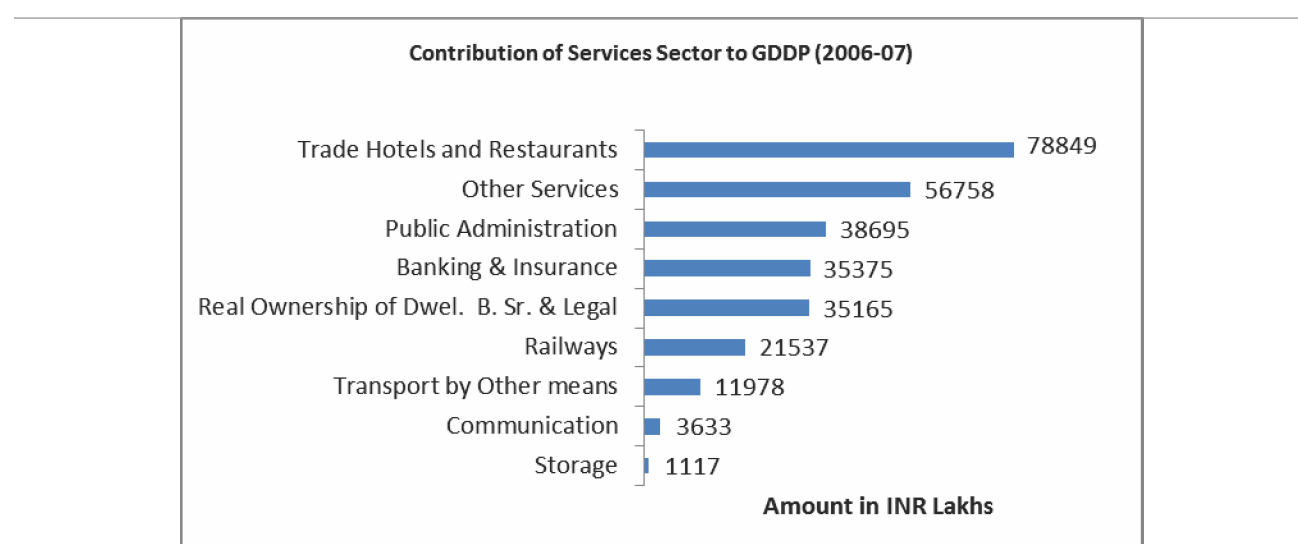
⁴⁸³ Directorate of Pisciculture, Govt of West Bengal

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Purulia district.

Existing Clusters	Clusters Identified for Promotion
(i) Shellac manufacturing, (ii) Hand Tools. (iii) Chow Mask	Shellac Manufacturing

16.16.2.3 Services Sector

Service sector plays a key role in the economy of Purulia. Sector has contributed to 49.20 percent⁴⁸⁴ of GDDP in the year 2006-07 witnessing a growth of 7.9 percent CAGR during the period between 2001-02 and 2006-07. Tertiary activities are predominantly unorganized in nature providing considerable employment opportunities. Sub sector wise breakup of services income is presented in the chart.



The district witnesses significant tourism inflows to forests of Ajodhya, Matha and Kuilapal, falls and tribal habitations of Ajodhya Hills and Bagmundih, dams like Panchet, Murguma Dam. Banda temple, Cheliama temple, Deulghata temple, and Pakbirra temple are some of the places known for religious tourism. Heritage buildings like Panchakot Raj Place, trekking range of Matha proud with Pakhi Pahar, and Joychandi Pahar, picnic spots like Duarsini, Doladanga, Jamuna, traditional folk dance and culture like Chhou Dance and Jhumur Song are among other tourist attractions along with Charra, Ganpur and Telkupi⁴⁸⁵.

Purulia is identified as one of the destinations for growth of IT/ITES sector in Tier-I and Tier-II cities. District is expected to house IT Park/incubation centers through Government impetus like Siliguri and Durgapur.

Purulia has high penetration of banking and financial services measured as a percentage of GDDP at 6.15 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of the district has grown by 2.52 percent CAGR between 2006 and 2011⁴⁸⁶. Bank credit has grown at 14.33 percent CAGR and the bank-deposits had a growth of 20.73 percent CAGR over the last five years⁴⁸⁷. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

⁴⁸⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁸⁵http://purulia.gov.in/tourtravel/tour_archo.html

⁴⁸⁶<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

⁴⁸⁷<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

Healthcare coverage in terms of population served per bed at 1,124 persons per bed is lower than the state average of 851 persons per bed. District has 52 PHCs and 20 CHCs along with 485 Sub centers⁴⁸⁸. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Purulia											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	506	1	150	0	0	1	200	18	550
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
2	25	52	344	3	63	0	0	1	222	12	545
Total no of hospitals and beds		91					2605				

Contribution of railways to GDDP has grown at 8.2 percent CAGR and that of roadways & other transport has increased by 7.0 percent CAGR during 2001-02 and 2006-07⁴⁸⁹. The district has a spread of 114 km of national highway with NH 32, SH 2 and SH 4 connecting key towns in Purulia to major cities within and outside West Bengal. Train services are well developed in the region with direct connections to Kolkata, Delhi, Mumbai, Chennai, Ranchi, Tatanagar and Patna.

16.16.3 Workforce Distribution in the district

16.16.3.1 Current Employment Scenario in Purulia

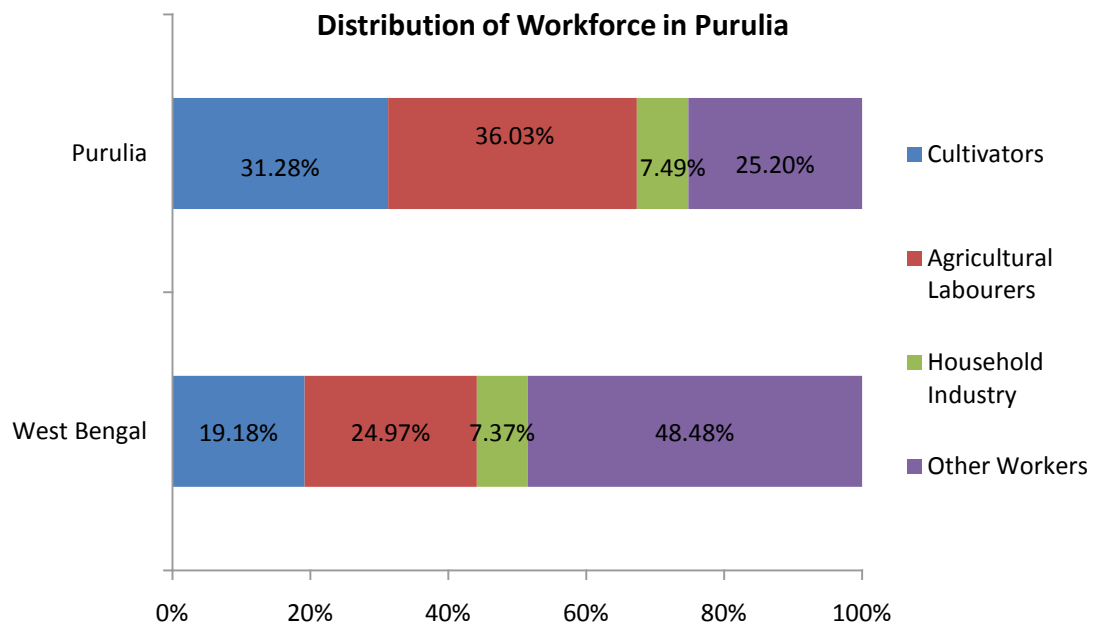
Work Participation Rate (WPR) in the district (44.45 percent) is higher than the state average of 36.77 percent. Higher participation in agriculture related activities is a key reason for better participation rates. However, considering the seasonal nature of employment significant portion of this work force is under employed.

⁴⁸⁸<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

⁴⁸⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Purulia -Rural	46.22%	20.73%	12,26,819	5,48,238	6,78,581
Purulia -Urban	28.66%	3.59%	1,82,209	70,818	1,11,391
Purulia	44.45%	19.00%	14,09,028	6,19,056	7,89,972
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Distribution of Workforce Participation indicates importance of agriculture to the district employment with over two thirds of the total working population depending on agriculture. Contribution of agricultural labourers is significantly high which would undergo changes considering the anticipated penetration of mechanization over the next decade.



16.16.3.2 Estimation of Supply of Manpower in Purulia

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Purulia is a moderate human resource growth district adding 6.75 lakh people to working age group during 2012-22.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Purulia	3213666	2149943	1438592	1192553	674988
West Bengal	99530929	66586192	34291889	31828200	18481360

16.16.3.3 Incremental Manpower Requirement in the district

Incremental manpower requirement in the district of Purulia has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Purulia. According to the estimates, in the next 5 years, Purulia is expected to witness an incremental manpower requirement of over 1.03 lakhs ⁴⁹⁰ which is expected to normalize to 89 thousand ⁴⁹¹ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	1142	NA	NA	1142	1142	NA	NA	1142	2284
Animal Husbandry	4428	NA	NA	4428	3690	NA	NA	3690	8118
Pisciculture	1521	NA	NA	1521	869	NA	NA	869	2390
Agro based & Food Processing	930	744	186	1860	761	609	152	1523	3383
Iron & Steel	1860	1488	372	3720	1523	1218	305	3045	6765
MSME (Manufacturing /Assembling /Processing)	3348	1953	279	5580	2798	1632	233	4664	10244
Repairing & Maintenance	939	548	78	1565	782	456	65	1304	2869
Construction	19422	2943	1177	23542	14897	3973	993	19863	43405
IT&ITES	NA	1935	7065	9000	NA	1290	4710	6000	15000
Healthcare	3383	414	752	4549	7972	976	1773	10721	15270
Transportations and Logistics	8525	1233	514	10272	7065	1021	426	8512	18784
Retail	17269	2497	1040	20806	12434	1798	749	14980	35786
Hospitality	3170	1132	226	4528	3077	1099	220	4395	8923
Communication	722	302	54	1078	598	250	45	893	1971
Banking and Financial Services	2565	302	151	3018	2381	280	140	2802	5820
Education and Training	3125	2466	1638	7228	2083	1644	1092	4819	12047

⁴⁹⁰ KPMG Estimates on Incremental Manpower Requirement

⁴⁹¹ KPMG Estimates on Incremental Manpower Requirement

16.16.4 Human Resource Development Scenario in the District

16.16.4.1 Current State of Workforce Development

Concentration of higher education institutes in Purulia is marginally lower than the state average. Kashipur Michael Madhusudhan Mahavidyalaya, Bidyasagar Foundation School of Education and Training and Manbhumi Mahavidyalaya are some of the prominent higher education institutes in Purulia. Comparison of higher education infrastructure in Purulia with West Bengal is presented in the table.

Category of College	West Bengal	Purulia
General Degree	452	19
BEd	129	4
Physical Education	20	–
Law	26	–
Music	2	–
Art	4	–
Engineering & Technology	85	–
Business Management & Hotel Management	42	–
Total	760	23
Density(Colleges per Thousand Population)	0.83	0.79

Accessibility of vocational education in Purulia is on par with the state average. Purulia Polytechnic and Bundwan Polytechnic are two Polytechnic Colleges in the district. Details of vocational education infrastructure in Purulia is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Purulia	2			2	502			502	0.17

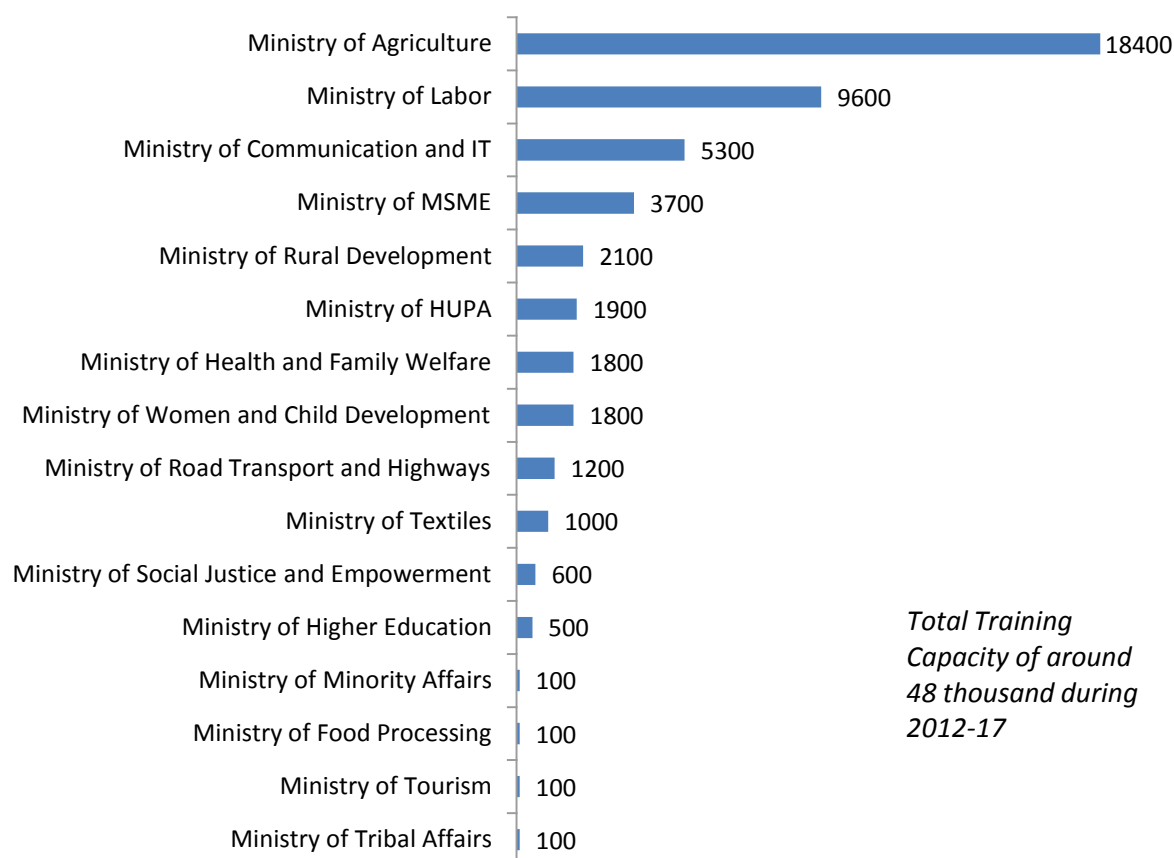
Two employment exchanges in the district have over 2,00,000 live registrations. However, placement rates were very poor with minimal private participation⁴⁹².

⁴⁹² Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.16.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 48 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Ministry of Agriculture have significant training mandates in the district. Purulia being an industrially less developed, district has Government training focus on livelihood promotion.

Potential Training Capacity in Purulia during 2012 -17



16.16.5 District Specific Recommendations

Purulia has opportunity in direct training of manpower to the extent of 1.03 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Emerging industrial growth in the district owing to availability of land
- Limited industrial base in the district
- High proportion of employment generation in unorganized/self employment streams

Considering these factors, the proposed action plan for stakeholders in skill development in Purulia district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting employment outside the district
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Agri-Allied activities
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Iron & Steel ○ Auto-Engineering
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies for supplying manpower to destinations within and outside West Bengal <ul style="list-style-type: none"> ○ Retail ○ Construction ○ IT/ITES ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.17 Skill Gap Assessment of South 24 Parganas District

16.17.1 Social Profile

16.17.1.1 Demographics

South 24 Parganas is second most populous district in West Bengal with a population of 81.53 lakhs of as per 2011 Census. The district is predominantly rural with a rural share of 74.39 percent⁴⁹³ to overall district population. Population density of South 24 Parganas at 819 persons per sq.km is lower than state average of 1029 persons per sq.km⁴⁹⁴. The gender composition across age groups has witnessed varied changes during 2001-11. While adult gender ratio has increased from 937 females per 1000 males in 2001 to 949 females per 1000 males in 2011, child (0-6 age group) gender ratio decreased from 964 girls per 1000 boys to 953 girls per 1000 boys⁴⁹⁵ during the same period. Reserved categories account for 28.25⁴⁹⁶ percent of total district population.

16.17.1.2 Literacy

District has a marginally higher literacy rate of 78.57 percent in comparison to state average of 77.08 percent⁴⁹⁷. Government schools account for 89.18 percent⁴⁹⁸ of total 6507⁴⁹⁹ K-12 institutions operating in the district. Dropout rates across age groups are comparable to the state averages. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
South 24 Parganas	627590	6574	1.05%	725513	11506	1.59%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.17.2 District Economy

South 24 Parganas is a key economy in West Bengal with the district among top five contributors to overall state income. However, district economy has witnessed a marginally lower growth in comparison to overall state over the recent years. During the period between 2001-02 and 2006-07 district income registered a cumulative growth rate of 10.87 percent⁵⁰⁰ as against 11.65 percent of state average. District economy is primarily dependant on tertiary activities with a significant share of secondary sector. Secondary sector has witnessed highest growth of 14.1 percent CAGR during 2001-02 and 2006-07 among the sub-sectors. Sub-Sector wise district income growth trends are presented in the chart.

⁴⁹³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁹⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁹⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

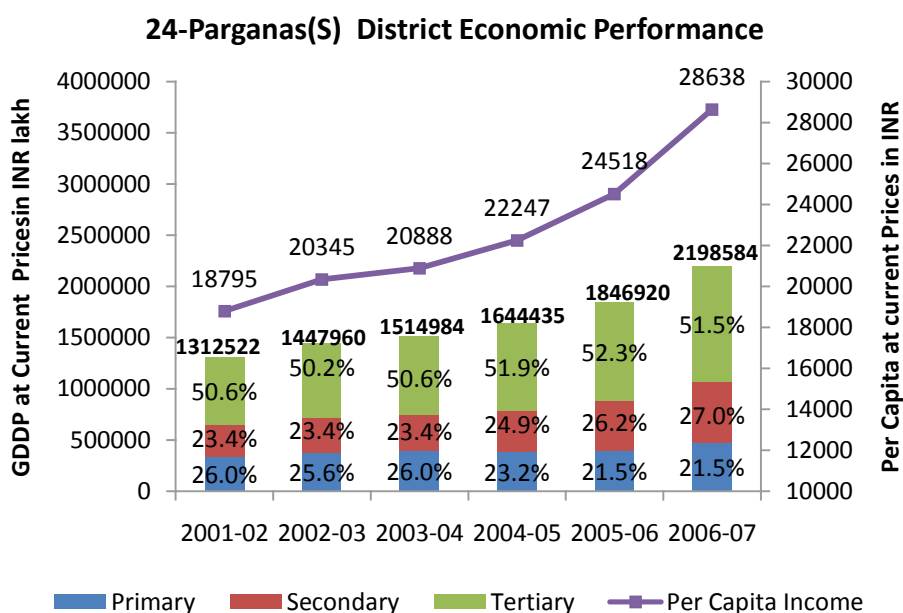
⁴⁹⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁹⁸<http://www.dise.in/drc.htm>

⁴⁹⁹<http://www.dise.in/drc.htm>

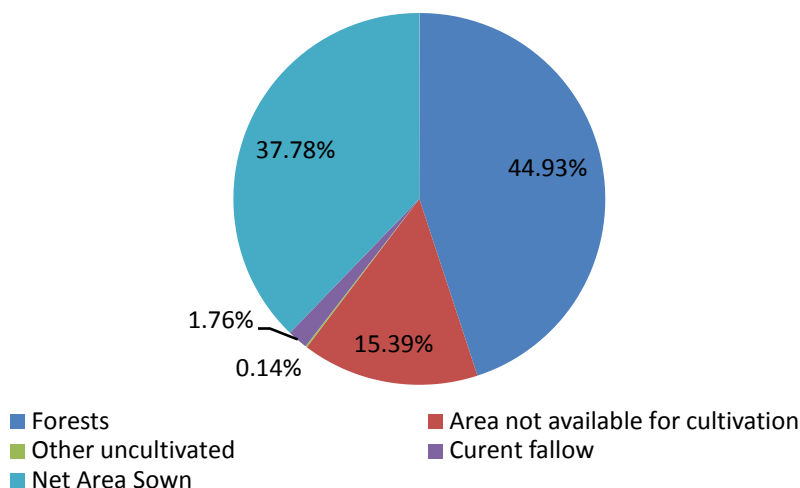
⁵⁰⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



16.17.2.1 Agriculture and allied sectors

South 24 Parganas is a key agricultural district in West Bengal. District has around 3,58,401 ha of net sown area with a low proportion of (39.4 percent) of total geographical area under cultivation. The district, along with Paschim Medinipur, Burdhan and Murshidabad accounts for major share of the cultivable land in the state. About 44.49 percent of net sown area is exposed to multiple cropping⁵⁰¹. Tanks and canal facilities from the rivers are major sources of irrigation in the district.⁵⁰² South 24 Parganas land gets waterlogged during rainy seasons due to flooding. Saline nature of this stagnating water has led farmers to adopt 'tide-based agriculture' model where farmers resort to cultivation and fishing depending on the season. District land usage distribution is presented in the chart.

South 24 Parganas - Land use pattern



⁵⁰¹ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

⁵⁰² <http://s24pgs.gov.in/s24p/page.php?nm=Geography>

South 24 Parganas district has the largest forest area among the districts of West Bengal. Forest cover accounts for nearly 45% of the used land in the district. Forest Produce is a key livelihood activity in the tribal regions.

Rice is a key agricultural crop in the district accounting for 71.1 percent⁵⁰³ of net sown area as of 2009-10. Banana, papaya, guava, litchi, sapota, tomato, cabbage, cauliflower and okra are key horticulture crops in South 24 Paragans. The district is among the largest producers of eggs in West Bengal.

Fishing industry contributed to 37.18 percent⁵⁰⁴ of primary sector income during 2006-07. Growth of pisciculture in the district is primarily attributed to location advantage. The district has costal lines along Bay of Bengal along with Sunderban deltas enhancing the prospects of fishing industry. The district has the highest net available area (1, 15,000 ha) for pisciculture in West Bengal. However effective utilization of the area is only around 41%⁵⁰⁵ indicating further opportunities to improve the industry through innovative techniques.

16.17.2.2 Industry

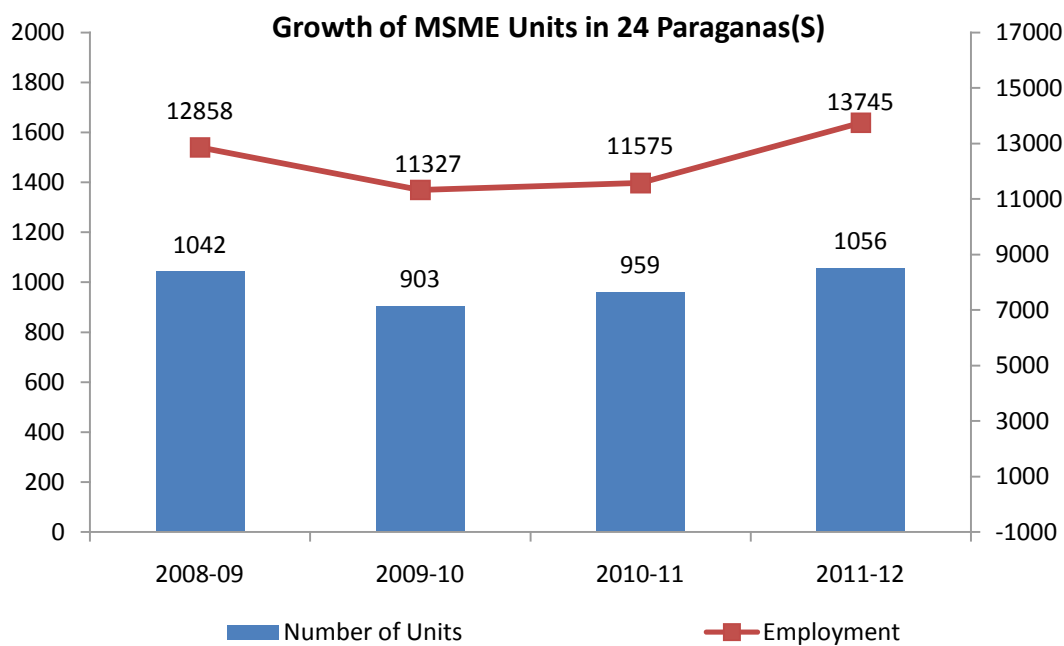
24 South Parganas district has a diversified spread of industrial growth ranging from predominantly large scale industrial regions in the Kolkata Metropolitan Areas to Earthen Pottery, Handicrafts in the rural areas. Convergence of parts of district are with Kolkata Municipal Corporation has helped the growth of industries in these areas. Birla Jute & Industries Ltd, Bala Techno Synthetics Ltd, ACC-Alcoa Ltd, Elque Polyesters Ltd, J.J.Spectrum Silk Ltd, Pepsico India Holdings Ltd, Sandip Ferro Alloy Ltd, Datre Corporation Ltd and VXL landis & Gyr Ltd are key industrial players in the district. As per 2011 estimates there are 7,188 registered factories operating in Paragnas districts (North & South) providing average daily employment of 4, 31,317.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 3,960 units generating additional employment of over 49,505 during the period. Earthen Pottery, Silver Ornaments and Leather units are prominent MSME category industries in 24 South Parganas. Employment growth trends in MSME segment are presented in the chart.

⁵⁰³ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

⁵⁰⁴ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁵⁰⁵ <http://wbagrmarketingboard.gov.in>



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in South 24 Parganas district.

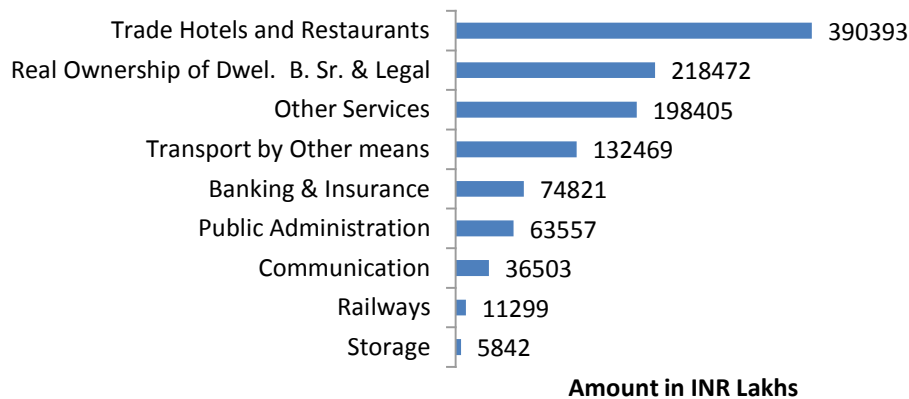
Existing Clusters	Clusters Identified for Promotion
(i) Earthen Pottery, (ii) Silver Ornaments, (iii) Leather Shoe and Chappal, (iv) Bricks and Tiles. (v) Mat products, (vi) Bamboo Products, (vii) Gauze & Bandage, (viii) Bori Making	Silver Filigree

16.17.2.3 Services Sector

Service sector has a key role in the economy of South 24 Parganas. Sector has contributed to 51.5 percent⁵⁰⁶ of GDDP in the year 2006-07 witnessing a growth of 11.3 percent CAGR in the period between 2001-02 and 2006-07. While tertiary activities in the district are predominantly unorganized, tourism in Sundarbans and convergence with Kolkata Metropolitan has increased the level of organized industry penetration. Sub sector wise breakup of services income is presented in the chart.

⁵⁰⁶<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Contribution of Services Sector to GDDP (2006-07)



Sundarbans in the district is a key tourist destination attracting tourists from within and outside West Bengal. Ganga Sagar, Alipore Zoo, Ba Bakkhali, National Library and Diamond Harbour are among the other tourist places in South 24 Parganas. The district houses premium hotels like Taj Bengal, The Enclave and Flury's café.

South 24 Parganas has lowest penetration of banking and financial services measured as a percentage of GDDP at 3.4 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown by 7.46 percent CAGR between 2006 and 2011⁵⁰⁷. Bank credit has grown at 35.07 percent CAGR and bank-deposits had a growth of 25.3 percent CAGR over last five years⁵⁰⁸. Low penetration of banking and financial services would drive significant impetus from Government for the sectoral growth during 2012-22.

Healthcare coverage In terms of population served per bed at 1,614 persons per bed is among the lowest in the state with an average of 851 persons per bed. District has 61 PHCs and 30 CHCs along with 1068 Sub centers⁵⁰⁹. Being a district with low healthcare coverage, significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

⁵⁰⁷<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁵⁰⁸<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁵⁰⁹<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in South 24 Parganas											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	610	4	618	4	524	0	0	21	680
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
9	105	61	429	1	300	6	108	1	143	170	1534
Total no of hospitals and beds		278					5051				

Contribution of railways to GDP has increased at 8.8 percent CAGR and that of roadways & other transport has increased by 14.4 percent CAGR during 2001-02 and 2006-07⁵¹⁰. NH 117 passes through South 24 Parganas linking to NH 2 and NH 6 connecting to Delhi and Hazira respectively. Proximity to Howrah and Sealdah rail terminals has provided the district with good accessibility to railways.

16.17.3 Workforce Distribution in the district

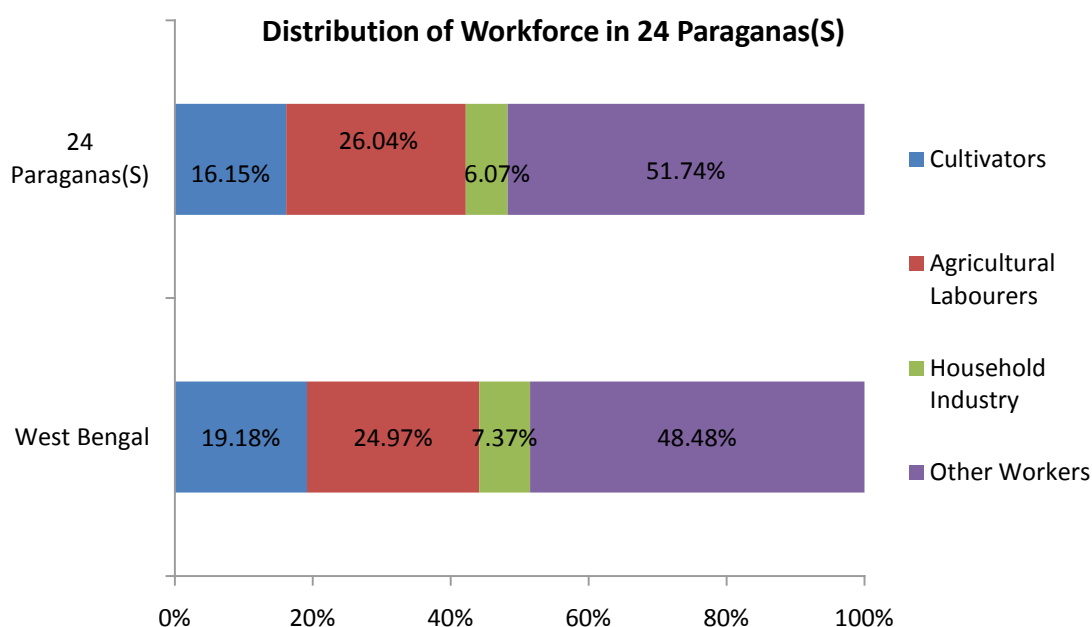
16.17.3.1 Current Employment Scenario in South 24 Parganas

Work Participation Rate (WPR) in the district (32.47 percent) is lower than the state average of 36.77 percent. Female work participation is a key concern in the district with uniformly low participation rates across both rural and urban regions.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
24 Parganas(S) -Rural	32.57%	8.91%	39,24,567	14,51,147	24,73,420
24 Parganas(S) -Urban	31.93%	4.23%	7,39,362	2,66,356	4,73,006
24 Parganas(S)	32.47%	8.17%	46,63,929	17,17,503	29,46,426
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

⁵¹⁰<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Distribution of Workforce Participation indicates importance of services sector to the district employment with over half of the total working population depending on this sector. Contribution of agricultural labourers is marginally high which would undergo a change, considering the anticipated penetration of mechanization over the next decade.



16.17.3.2 Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. South 24 Parganas is expected to contribute to a significantly high share of incremental working age population during 2012-22 adding 17.19 lakh people to working age group. Significant part of this incremental population is expected to migrate towards urban parts of South 24 Parganas along with migration to Howrah, Kolkata for employment.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
South 24 Parganas	9083540	6076888	2996102	2483686	1719463
West Bengal	99530929	66586192	34291889	31828200	18481360

16.17.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of South 24 Parganas has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in South 24 Parganas. According to the estimates, in the next 5 years, South 24 Parganas is expected to witness an incremental

manpower requirement of over 4.38 lakhs ⁵¹¹ which is expected to normalize to 3.48 lakhs ⁵¹² during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	46	NA	NA	46	46	NA	NA	46	92
Animal Husbandry	14490	NA	NA	14490	12075	NA	NA	12075	26565
Pisciculture	51104	NA	NA	51104	29202	NA	NA	29202	80306
Agro based & Food Processing	664	531	133	1328	544	435	109	1087	2415
Iron & Steel	922	738	184	1844	755	604	151	1510	3354
Jute & Textiles	1107	885	221	2213	906	725	181	1812	4025
Rubber & Plastic Products	1291	1033	258	2582	1057	846	211	2114	4696
Region Specific Industries	443	354	89	885	362	290	72	725	1610
MSME (Manufacturing /Assembling/Processing)	19928	11625	1661	33214	16656	9716	1388	27760	60974
Repairing & Maintenance	5588	3260	466	9314	4657	2716	388	7761	17075
Construction	78994	11969	4788	95751	60591	16158	4039	80788	176539
IT&ITES	NA	2129	7772	9900	NA	1419	5181	6600	16500
Healthcare	20225	2475	4499	27198	22839	2795	5080	30713	57911
Transportations and Logistics	36830	5325	2219	44373	30521	4413	1839	36773	81146
Retail	85501	12362	5151	103013	61561	8900	3708	74169	177182
Hospitality	10484	3744	749	14978	10176	3634	727	14537	29515
Communication	7254	3031	541	10826	6011	2512	449	8972	19798
Banking and Financial Services	5425	638	319	6382	5037	593	296	5926	12308
Education and Training	2297	1813	4463	8572	1531	1208	2975	5715	14287

⁵¹¹ KPMG Estimates on Incremental Manpower Requirement

⁵¹² KPMG Estimates on Incremental Manpower Requirement

16.17.4 Human Resource Development Scenario in the District

16.17.4.1 Current State of Workforce Development

Concentration of higher education institutes in South 24 Parganas is marginally lower than the state average. Region has access to higher education institutes like the Indian Institute of Management, Calcutta; Indian Association of the Cultivation of Science and the Indian Institute of Chemical Biology. Comparison of higher education infrastructure in South 24 Parganas with West Bengal is presented in the table.

Category of College	West Bengal	South 24 Parganas
General Degree	452	39
BEd	129	7
Physical Education	20	
Law	26	4
Music	2	
Art	4	
Engineering & Technology	85	5
Business Management& Hotel Management	42	7
Total	760	62
Density(Colleges per Thousand Population)	0.83	0.76

Accessibility of vocational education in South 24 Parganas is among the least in West Bengal. Central Footwear Training Institute, Shree Ramkrishna Institute of Science & Technology, JLD College of Engineering & Management and Belgachi Gram Panchayet are the polytechnic colleges available in the region. Details of vocational education infrastructure in South 24 Parganas is presented in the table.

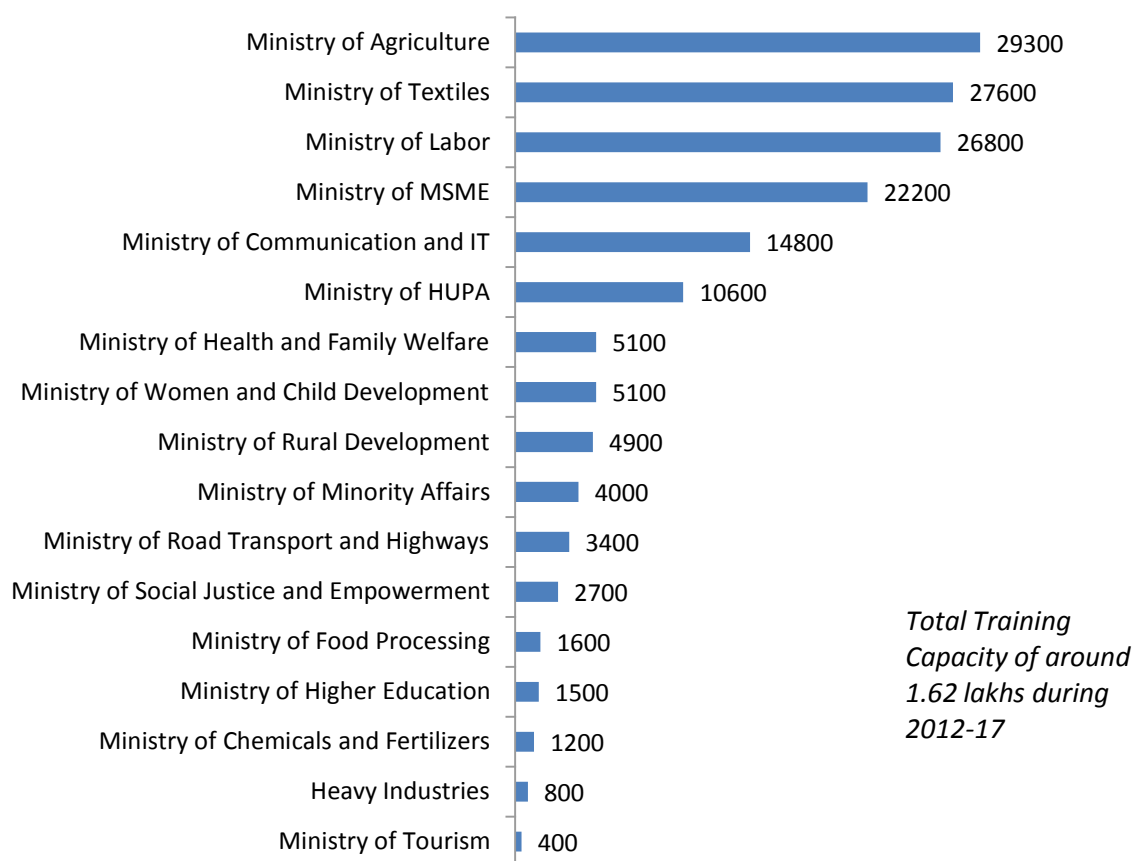
District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
South 24 Parganas	2	2		4	352	112		464	0.06

Five employment exchanges functioning in the district have over 4,50,000 live registrations. However, placement rates were very poor with minimal private participation⁵¹³.

16.17.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 1.62 lakh people in total can be trained incrementally during the five year period of 2012-17. South 24 Parganas has second highest Government funded training mandate among the districts of West Bengal next to North 24 Parganas. While scheme training in North 24 Paragans is predominantly industry oriented, in South 24 Parganas it is inclined more towards livelihood promotion.

Potential Training Capacity in South 24 Paraganas during 2012 -17



⁵¹³ 'Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

16.17.5 District Specific Recommendations

South 24 Parganas has opportunity in direct training of manpower to the extent of 4.38 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Significant potential for the growth of Pisciculture and Animal Husbandry activities
- Considerable manpower requirements in Jute/Textile, Iron & Steel, Rubber & Plastics industries
- High proportion of employment generation in unorganized/self employment streams

Considering these factors, the proposed action plan for stakeholders in skill development in South 24 Parganas district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> • Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Construction ○ Jute/Textile
District Administration Indore	<ul style="list-style-type: none"> • Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Pisciculture ○ Agri-Allied activities
Private Skill Training Providers	<ul style="list-style-type: none"> • Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Construction ○ Jute/Textile ○ Iron & Steel ○ Rubber & Plastics industries
Corporate	<ul style="list-style-type: none"> • Focus on placement driven training targeting local youth from low income families with cost to be borne by companies for <ul style="list-style-type: none"> ○ Construction ○ Jute/Textile • Initiate and support modular employability skill training in collaboration with private players/Government • To create placement linkage opportunities in training institutions

16.18 Skill Gap Assessment of Uttar Dinajpur District

16.18.1 Social Profile

16.18.1.1 Demographics

Uttar Dinajpur is a moderately populated district in West Bengal with a population of 30 lakhs as per 2011 Census. Rural regions contribute significantly to district demographics with 87.93 percent share of total population⁵¹⁴. The district has a marginally lower population density of 956 persons per sq. km in comparison to state average of 1029 persons per sq.km⁵¹⁵. Population density of this district has increased significantly from 778 persons per sq km in 2001⁵¹⁶ with the district witnessing rapid population growth of over 20 percent during the last two decades.⁵¹⁷ Adult gender ratio of Uttar Dinajpur at 936 females per 1000 males in 2011 is marginally lower than child (0-6) gender ratio of 946 girls per 1000 boys⁵¹⁸. Reserved categories, predominantly Scheduled Castes contribute to 32.8 percent of total population of the district.⁵¹⁹

16.18.1.2 Literacy

District has significantly low literacy rate of 60.13 percent as per 2011 Census. While literacy rate has increased from 47.89 percent in 2001 it is still lower than state average of 73.79 percent.⁵²⁰ As per 2011 estimates district has 3176 K-12 institutions with 88.73 percent share of Government schools.⁵²¹ Uttar Dinajpur has highest dropout rates among all districts of West Bengal. District has over 6% dropout rates at both primary and upper primary levels indicating an immediate need to strengthen efforts to check the high dropout rates. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Uttar Dinajpur	221806	13477	6.08%	256415	16140	6.29%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.18.2 District Economy

Uttar Dinajpur is among backward districts of West Bengal accounting for a low share of overall state income. Further, district economy has witnessed a marginally lower growth in comparison to overall state average over the recent years. During the period between 2001-02 and 2006-07 district income registered a cumulative growth rate of 10.89 percent⁵²² as

⁵¹⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵¹⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵¹⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵¹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵¹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

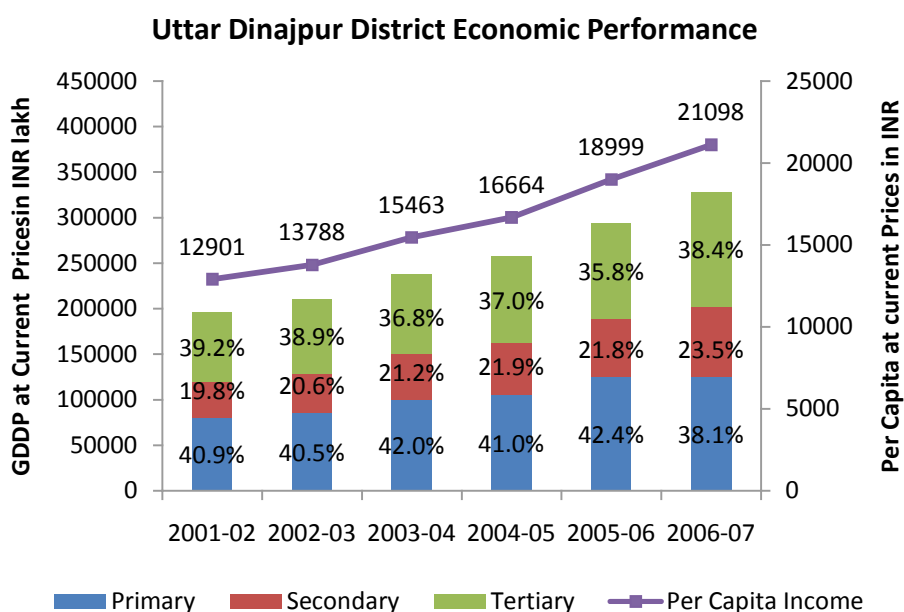
⁵¹⁹http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Population/ST_Population.aspx

⁵²⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵²¹<http://www.dise.in/drc.htm>

⁵²²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

against 11.65 percent⁵²³ of state average. District is predominantly Agrarian with a near equal share from both Primary and Tertiary sectors to overall district economy. Sub-Sector wise district income growth trends are presented in the chart.



16.18.2.1 Agriculture and allied sectors

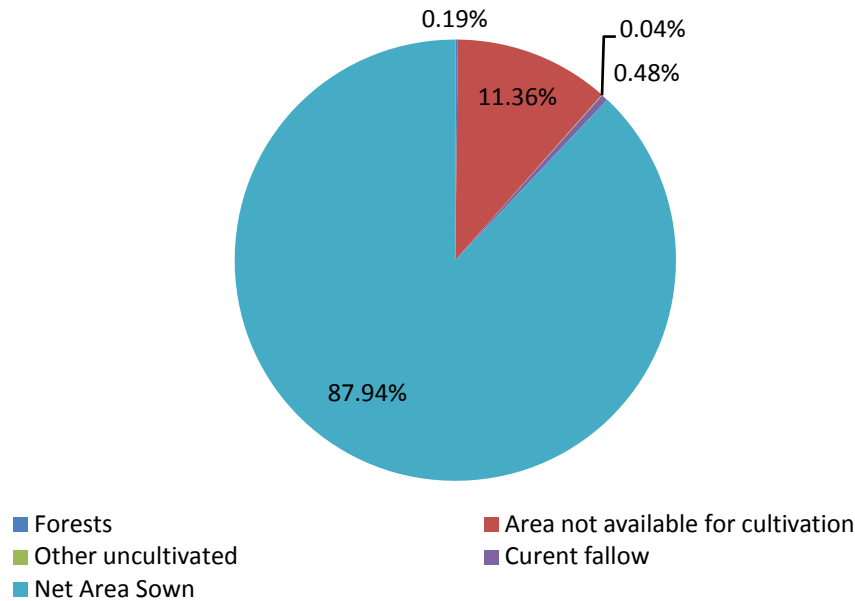
Uttar Dinajpur has significant dependence on agricultural activities for livelihood. The district has around 2,74,768 ha of net sown area with a high proportion (88.65 percent⁵²⁴) of total geographical area under cultivation. The district has legible forest cover of 0.19 percent in comparison to state average of 13.52 percent⁵²⁵. The land usage distribution is presented in the chart.

⁵²³ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁵²⁴ Directorate of Agriculture, Govt of West Bengal

⁵²⁵ Directorate of Agriculture, Govt of West Bengal

Uttar Dinajpur - Land use pattern



Rice, wheat, jute and mustard are key agricultural crops in the district. Rice cultivation accounts for around 50 percent of net sown area.⁵²⁶ Over the recent years, this district has witnessed marginal growth in maize and mustard production⁵²⁷.

Tea, potato, ginger, spices and pineapple are some of the other cash crops grown in Uttar Dinajpur. Agro based industries in the district have flourished with the availability raw material for potato chips, ketchup, jam and other consumables.

The district has significant Mulberry production. As per 2010-11 estimates Uttar Dinajpur has produced 18,570 tons⁵²⁸ of Mulberry silk.

16.18.2.2 Industry

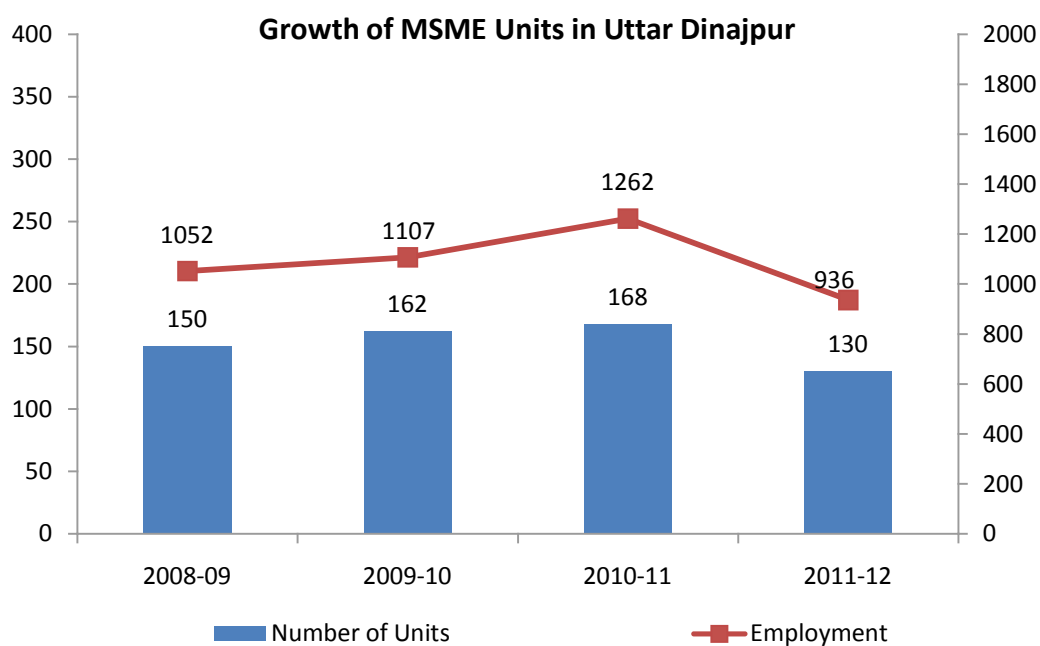
Uttar Dinajpur is primarily an agrarian district with limited industrial development. Availability of agricultural produce like Rice, Jute, Mustard has helped the growth of food processing and Jute units predominantly in MSME category. Dalkhola Flour Mills Pvt.Ltd, Raimohan Tea & Plantation Pvt Ltd, Chandan Tea Industries Pvt Ltd are among the few large scale industrial players in the district. As per 2011 estimates there are 109 registered factories operating in Dinajpur districts (Uttar & Dakshin) providing average daily employment of 6,740.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 610 units generating additional employment of over 4,357 during the period. Terecotta, Oil Processing, Jute units are prominent MSME category industries in Uttar Dinajpur. Employment growth trends in MSME segment are presented in the chart.

⁵²⁶Directorate of Agriculture, Govt of West Bengal

⁵²⁷Directorate of Agriculture, Govt of West Bengal

⁵²⁸Directorate of Sericulture, Govt of West Bengal



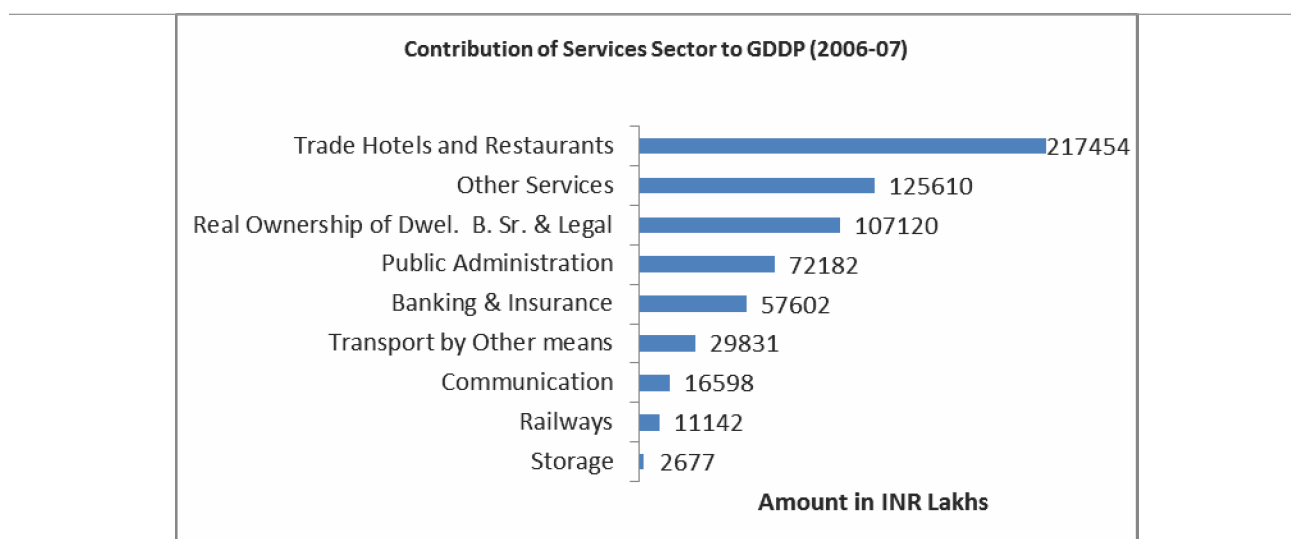
Based on our discussions with District Industries Center, following potential MSME growth clusters are identified in Uttar Dinajpur district.

Existing Clusters	Clusters Identified for Promotion
(i) Terracotta Products, (ii) Oil Mill. (iii) Jute products	Mustard Oil

16.18.2.3 Services Sector

Service sector has an important role in the district economy providing livelihood opportunities to a significant portion of district workforce. Sector has contributed 46.35 percent⁵²⁹ to the GDDP in the year 2006-07 witnessing a growth of 10.4 percent CAGR in the period between 2001-02 and 2006-07. Sub sector wise breakup of services income is presented in the chart.

⁵²⁹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



The district has some of the prominent tourist attractions in West Bengal. Raiganj Bird Sanctuary is a major tourist attraction in Uttar Dinajpur. Temple of Goddess Bhairabi, Mosque of Burhana fakirs, Temple of Goddess Kali, Museum at Karnajora and Banabithi resort at Barui are other key tourist attractions in the district. Eco Tourism at Bijolia More is being developed by Tourism Development Board.

Uttar Dinajpur has a penetration of banking and financial services measured as a percentage of GDDP at 5.14 percent, comparable to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown at 3.86 percent CAGR between 2006 and 2011⁵³⁰. Bank credit witnessed a growth of 14.32 percent CAGR and bank-deposits had a growth of 23.47 percent CAGR over the last five years⁵³¹.

Healthcare coverage in terms of population served per bed at 2,450 persons per bed is least among the districts of West Bengal with a state average of 851 persons per bed. District has 18 PHCs and 8 CHCs along with 344 Sub centers⁵³². Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion targets for 2022. Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Uttar Dinajpur											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
0	0	1	400	1	200	1	60	0	0	6	180
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	

⁵³⁰<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁵³¹<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁵³²<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
2	20	18	128	1	50	0	0	0	0	16	187
Total no of hospitals and beds		46					1225				

Contribution of railways to GDDP has witnessed a growth of 9.5 percent CAGR and that of roadways & other transport has increased by 15.8 percent CAGR during 2001-02 and 2006-07⁵³³. NH 31 and NH 34 pass through the district. NH 31 connects the district to Jharkhand and Guwahati while NH 34 connects the district to Dum Dum in North Kolkata.

16.18.3 Workforce Distribution in the district

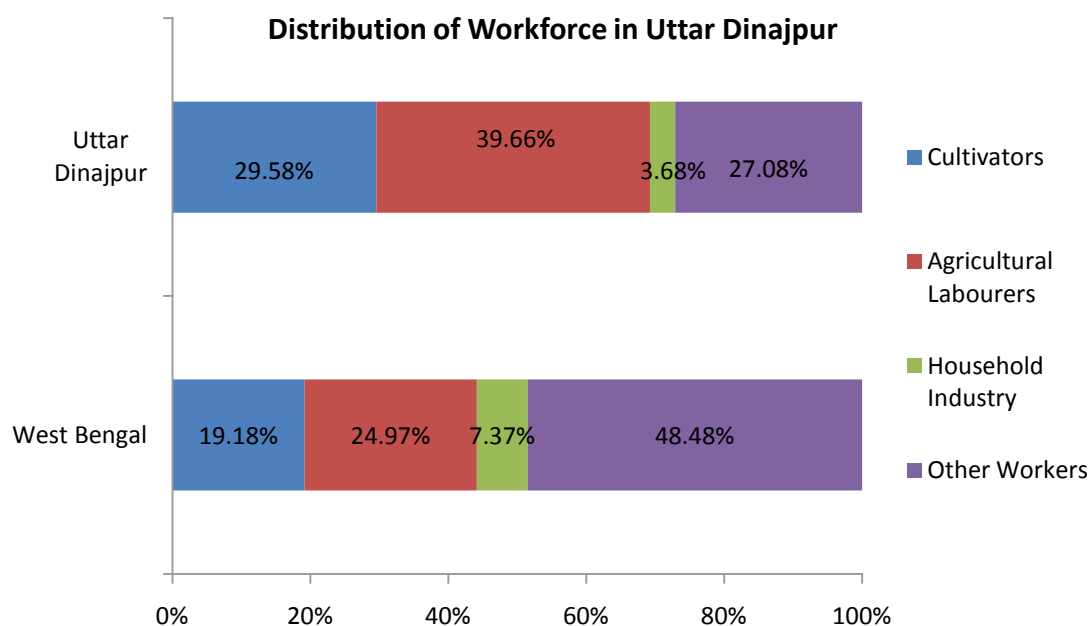
16.18.3.1 Current Employment Scenario in Uttar Dinajpur

Work Participation Rate (WPR) in the district (38.31 percent) is marginally higher than the state average of 36.77 percent. Female work participation is a key concern in the district with uniformly low participation rates across both rural and urban regions.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Uttar Dinajpur -Rural	39.21%	9.85%	13,05,368	5,28,655	7,76,713
Uttar Dinajpur) -Urban	31.77%	2.59%	2,00,902	77,405	1,23,497
Uttar Dinajpur	38.31%	8.97%	15,06,270	6,06,060	9,00,210
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

Distribution of Workforce Participation indicates importance of primary sector to the district employment with nearly 70 percent of the total working population depending on this sector. Limited industrial growth within the district has resulted in higher worker participation in agriculture leading to low productivity.

⁵³³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



16.18.3.2 Estimation of Supply of Manpower in the District

The district wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. Uttar Dinajpur is a moderate human resource growth district adding 8.37 lakh people to working age group of state during 2012-22. Considering the limited industrial employment opportunities within the district significant portion of the growing workforce is expected to migrate out-of district indicating a need to impart adequate skills to ensure quality employment.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply(2012-22)
Uttar Dinajpur	3435257	2298187	1339581	1110476	837404
West Bengal	99530929	66586192	34291889	31828200	18481360

16.18.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Uttar Dinajpur has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Uttar Dinajpur. According to the estimates, in the next 5 years, Uttar Dinajpur is expected to witness an incremental manpower requirement of over 87 thousand⁵³⁴ which is expected to normalize to 69 thousand⁵³⁵ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

⁵³⁴ KPMG Estimates on Incremental Manpower Requirement

⁵³⁵ KPMG Estimates on Incremental Manpower Requirement

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	78	NA	NA	78	69	NA	NA	69	147
Animal Husbandry	7648	NA	NA	7648	6373	NA	NA	6373	14021
Pisciculture	380	NA	NA	380	217	NA	NA	217	597
Agro based & Food Processing	837	670	167	1675	686	548	137	1371	3046
Rubber & Plastic Products	502	402	100	1005	411	329	82	823	1828
MSME (Manufacturing /Assembling /Processing)	1754	1023	146	2923	1466	855	122	2443	5366
Repairing & Maintenance	492	287	41	820	410	239	34	683	1503
Construction	14277	2163	865	17306	10951	2920	730	14601	31907
Healthcare	10696	1309	2379	14385	8843	1082	1967	11892	26277
Transportations and Logistics	4538	656	273	5468	3761	544	227	4531	9999
Retail	16076	2324	968	19368	11575	1673	697	13945	33313
Hospitality	2951	1054	211	4215	2864	1023	205	4091	8306
Communication	946	395	71	1411	784	328	58	1170	2581
Banking and Financial Services	1839	216	108	2163	1707	201	100	2008	4171
Education and Training	3762	2969	1577	8309	2508	1979	1051	5539	13848

16.18.4 Human Resource Development Scenario in the District

16.18.4.1 Current State of Workforce Development

Concentration of higher education institutes in the district is among the least in West Bengal. Comparison of higher education infrastructure in Uttar Dinajpur with West Bengal is presented in the table.

Category of College	West Bengal	Uttar Dinajpur
General Degree	452	6
BEd	129	2
Physical Education	20	–
Law	26	–
Music	2	–
Art	4	–
Engineering & Technology	85	–
Business Management& Hotel Management	42	–
Total	760	8
Density(Colleges per Thousand Population)	0.83	0.27

Accessibility of vocational education in Uttar Dinajpur is on par with the state average. Raiganj Polytechnic, Raiganj is the only Polytechnic College in the district. Details of vocational education infrastructure in Uttar Dinajpur is presented in the table.

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Private ITI	Total	Govt ITI	Govt ITC	Private ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Uttar Dinajpur	3			3	524			524	0.17

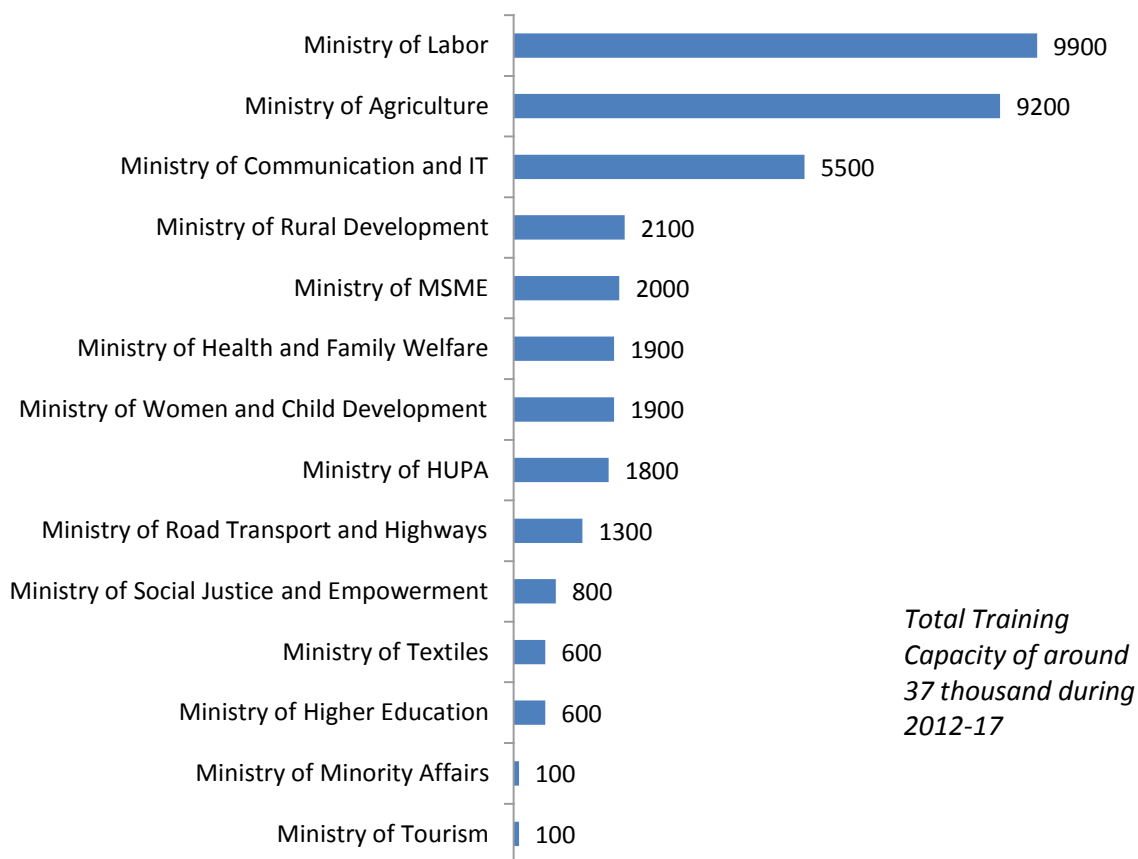
The district has two employment exchanges with one of the lowest live register strength in the state. However, placement rates were very poor with minimal private participation⁵³⁶.

16.18.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 37 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Ministry of Agriculture have significant training mandates in the district. Uttar Dinajpur being an industrially less developed region with low population base, has limited opportunities for private training providers.

⁵³⁶ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

Potential Training Capacity in Uttar Dinajpur during 2012 -17



16.18.5 District Specific Recommendations

Uttar Dinajpur has opportunity in direct training of manpower to the extent of 87 thousand over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Considerable potential for the growth of Pisciculture
- Limited human resource requirement in manufacturing sector limited to Agro based, Rubber & Plastics Industries
- Limited MSME base in the district
- High proportion of employment generation in unorganized/self employment streams

Considering these factors, the proposed action plan for stakeholders in skill development in Uttar Dinajpur district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting employment opportunities outside the district
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Pisciculture
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Agro based ○ Rubber & Plastics
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies for sectors with significant employment potential within/outside West Bengal <ul style="list-style-type: none"> ○ Construction ○ Retail ○ IT-ITES ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

16.19 Skill Gap Assessment of West Midnapore District

16.19.1 Social Profile

16.19.1.1 Demographics

West Midnapore is among most populous districts of West Bengal. As per 2011 Census, district has a population of 59.43 lakhs with an 88 percent share of rural segment⁵³⁷. Population density of district at 636 persons per sq.km is lower than state average of 1029 persons per sq. km⁵³⁸. Gender composition of population has not witnessed noticeable changes during 2001-11. Adult gender ratio has remained constant at 960 females per 1000 males while child (0-6 age group) gender ratio has been 952 girls per 1000 boys⁵³⁹ during the period.

16.19.1.2 Literacy

The district has registered a marginally higher literacy rate of 79.04 percent as per 2011 Census in comparison to state average of 77.08 percent⁵⁴⁰. Gender disparities in education still remains a key concern with a male literacy rate of 86.66 percent and female literacy rate of 71.11 percent. However, during 2001-11 female literacy rate has witnessed significant growth from 59.11 percent to 71.11 percent indicating achievements of efforts to improve female literacy rates in the district. District has 8833 K-12 institutions⁵⁴¹ with 94.34 percent⁵⁴² government participation. Dropout rates across levels have been maintained at lower limits in comparison to state average. Comparison of district school education statistics with overall state details are presented in the table.

Region	Primary Level			Upper Primary Level		
	5-8 Yrs Population	Out Of School Children	Dropout Percentage	9-13 Yrs Population	Out Of School Children	Dropout Percentage
Paschim Medinipur	471751	4381	0.93%	545358	7161	1.31%
West Bengal	7327111	76549	1.04%	8453797	131601	1.56%

16.19.2 District Economy

West Medinipore is a moderate economy in West Bengal. During the period between 2001-02 and 2006-07 district income registered a marginally higher cumulative growth rate of 12.23 percent⁵⁴³ as against state average of 11.65 percent⁵⁴⁴. Services sector accounts for major share of district income. While the contribution of secondary sector is low, income from the sector has witnessed a growth of 24.1 percent CAGR during 2001-02 and 2006-07 indicating the increasing significance of manufacturing activities in the district economy. Sub-Sector wise district income growth trends are presented in the chart.

⁵³⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵³⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵³⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁵⁴⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

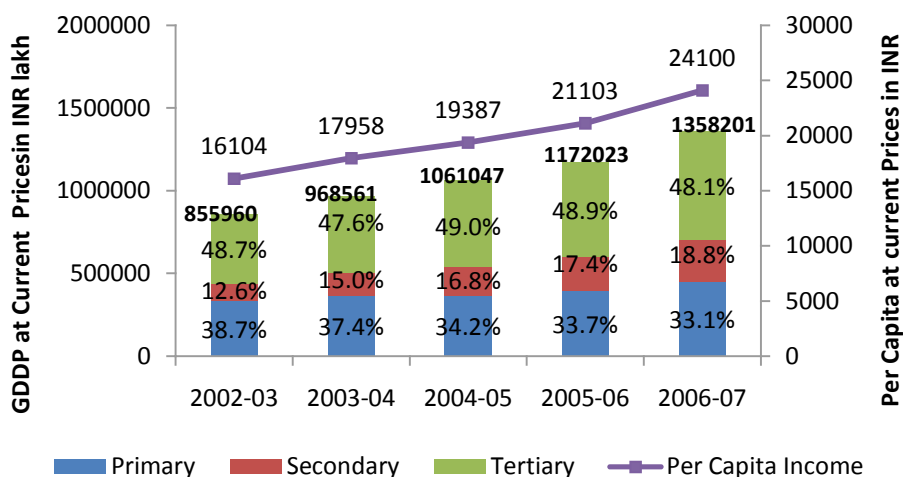
⁵⁴¹<http://www.dise.in/drc.htm>

⁵⁴²<http://www.dise.in/drc.htm>

⁵⁴³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁵⁴⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

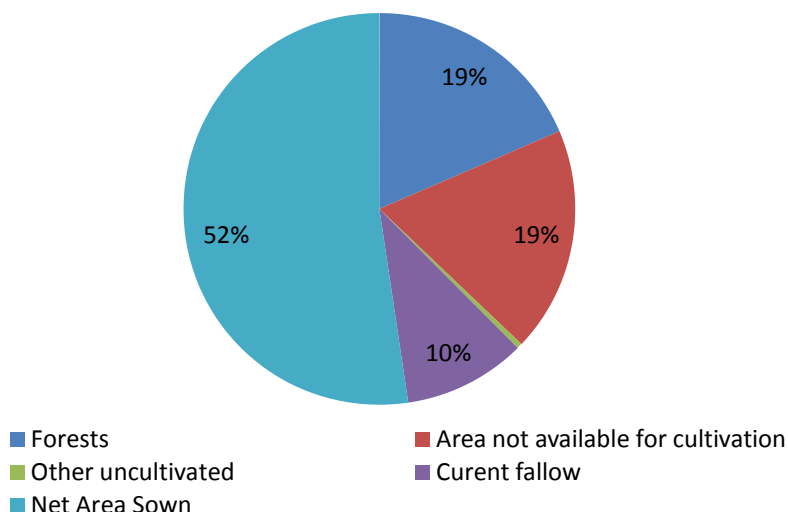
West Midnapore District Economic Performance



16.19.2.1 Agriculture and allied sectors

Paschim Medinipur is a key agricultural district in West Bengal with the district accounting for highest share of total state net sown area. District has around 4, 86,199 ha of net sown area with a 60.35 percent share of total geographical area under cultivation. Though canals are major source of irrigation around 75.26 percent of net sown area is exposed to multiple cropping.⁵⁴⁵ The district land usage distribution is presented in the chart.

Paschim Medinipur



The district has a forest cover of 18.52 percent in comparison to the state average of 13.52 percent.⁵⁴⁶ It also has significant forest produce based livelihood activities.

Rice is the key agricultural crop in the district accounting for 68.66 percent⁵⁴⁷ of net sown area. West Medinipur is among the key rice producing districts of West Bengal. Oilseeds, mango, banana, guava, lemon, orange, papaya, cashew,

⁵⁴⁵ Directorate of Agriculture, Govt of West Bengal

⁵⁴⁶ Directorate of Agriculture, Govt of West Bengal

jackfruit, onions and coconuts are other prominent crops grown in this district. Floriculture is another prominent activity in West Medinipore.

The district has significant scope for pisciculture activities with over 23,000 ha of net available area for pisciculture at an effective utilization of 68%⁵⁴⁸. Fishing accounted for 7.64 percent of the primary sector income during 2006-07.⁵⁴⁹ Area under Pisciculture is predominantly covered with Sal of coppice origin along with plantation, scrub jungles and bushes in minor fractions⁵⁵⁰.

Agro-Climatic conditions in the district facilitate Mulberry cultivation. District is known for special quality mulberry and tussar silk saris⁵⁵¹.

16.19.2.2 Industry

Emerging industrial infrastructure in West Medinipore is playing a key role in development of the district. Vidyasagar Industrial Park in Kharagpur for Engineering Products, Godapiasal Cement Industrial Park, and WBIDC Growth Center are among the industrial infrastructure present. Kharagpur is emerging as a key industrial region in the state. Consumer goods, plastic, chemical and engineering industries are prominent sectors in the district. Diesel and EMU workshops, Tata Metaliks, Flender McNeil are major industries present in West Medinipore. As per 2011 estimates there are 389 registered factories operating in Medinipore districts (East & West) providing average daily employment of 45,813.

Between 2008-09 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 2,464 units generating additional employment of over 14,634 during the period. Agricultural implements, Rice mills, Horn product units are prominent MSME category industries in West Medinipore. Presence of Diesel and EMU workshops has helped the growth of small-medium engineering units in the district. Employment growth trends in MSME segment are presented in the chart.

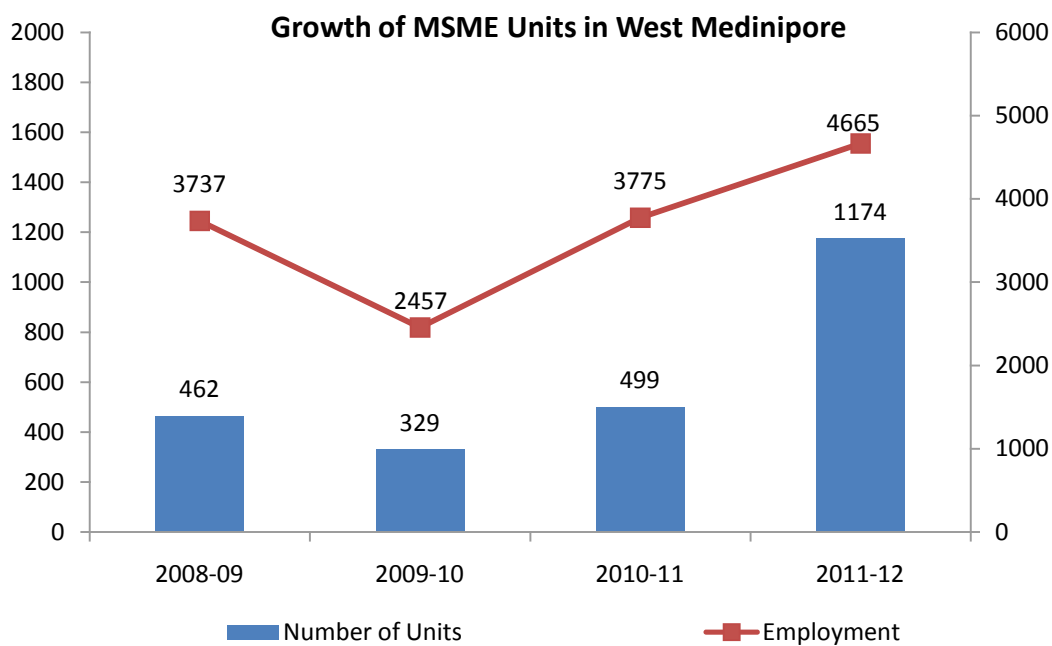
⁵⁴⁷ Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India

⁵⁴⁸ Directorate of Pisciculture, Govt of West Bengal

⁵⁴⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁵⁵⁰ Directorate of Pisciculture, Govt of West Bengal

⁵⁵¹ KPMG Analysis



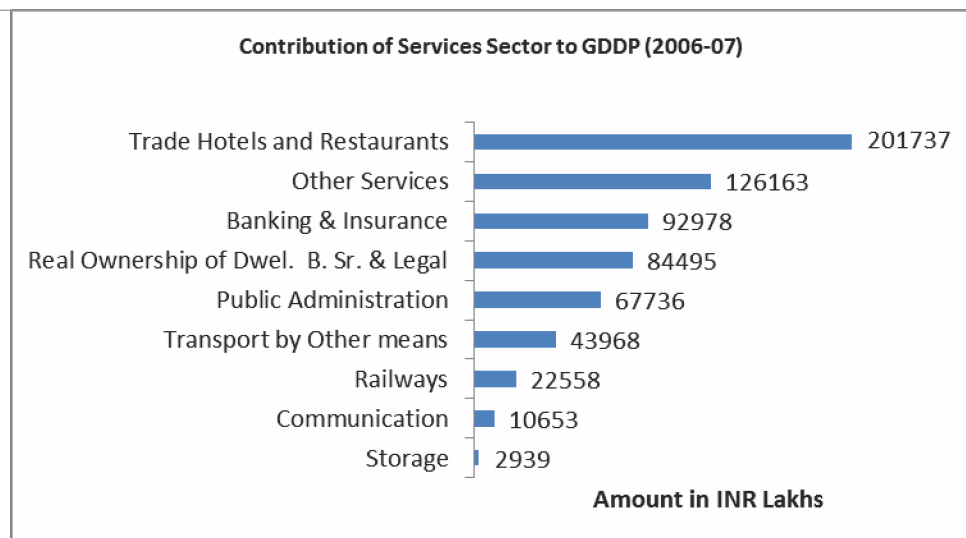
Based on discussions with District Industries Center, following potential MSME growth clusters are identified in West Medinipore district.

Existing Clusters	Clusters Identified for Promotion
(i) Agricultural Implements, (ii) Mat Products, (iii) Rice Mill, (iv) Copper Wire Ornaments. (v) Patachitra	Horn Products

16.19.2.3 Services Sector

Service sector has a prominent role in the livelihood generation for district workforce. Sector has contributed to 48.1 percent⁵⁵² of GDDP in the year 2006-07 witnessing a growth of 11.9 percent CAGR in the period between 2001-02 and 2006-07. Sub sector wise breakup of services income is presented in the chart.

⁵⁵²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



The district houses some of the major tourist destination in West Bengal. Chilkigarh (KanakDurga temple and park) is a key tourist place in West Medinipore. Gurguripal Heritage Park, Khirpai, Khargeswar Shiv Mandir, Umapati Shiv Mandir, Chandrakona, and Karnagarh are among the other major tourist attractions in the district.

West Medinipore is among the districts with high penetration of financial services. Penetration of banking and financial services in the district, measured as a percentage of GDDP at 6.85 percent in comparison to state average of 5.26 percent as per 2006-07 estimates. Number of bank branches in the district has grown at 2.02 percent CAGR between 2006 and 2011⁵⁵³. Bank credit witnessed a growth of 16.18 percent CAGR and bank-deposits had a growth of 25.03 percent CAGR over the last five years⁵⁵⁴. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

Healthcare coverage In terms of population served per bed at 1,159 persons per bed is lower than the state average of 851 persons per bed. District has 84 PHCs and 29 CHCs along with 858 Sub centers⁵⁵⁵. Being a district with low healthcare coverage significant growth of Government institutions is expected over the next decade in line with proposed inclusion

⁵⁵³<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁵⁵⁴<http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325>

⁵⁵⁵<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Healthcare Infrastructure in West Medinipore											
Medical College hospital		District hospital		Sub-divisional hospital		State General hospital		Other hospital		Rural hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
1	561	0	0	3	801	0	0	2	351	23	830
Block primary health centers		Primary Health centre		State Government Other Departments hospital		Local Body hospital		Government of India hospital		NGO/ Private hospital	
No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds	No.	Total beds
6	75	84	584	4	319	1	10	3	446	119	1152
Total no of hospitals and beds		246					5129				

Contribution of railways to GDDP has witnessed a growth of 8.1 percent CAGR and that of roadways and other transport had a 27.2 percent CAGR in the period between 2001-02 and 2006-07⁵⁵⁶. NH 6 and NH 60 pass through the district linking key towns in West Medinipore to Gujarat, Maharashtra, and Balasore. District is well connected by railways with major cities like Kolkata, Mumbai, Chennai, Delhi, Bangalore and Hyderabad.

16.19.3 Workforce Distribution in the district

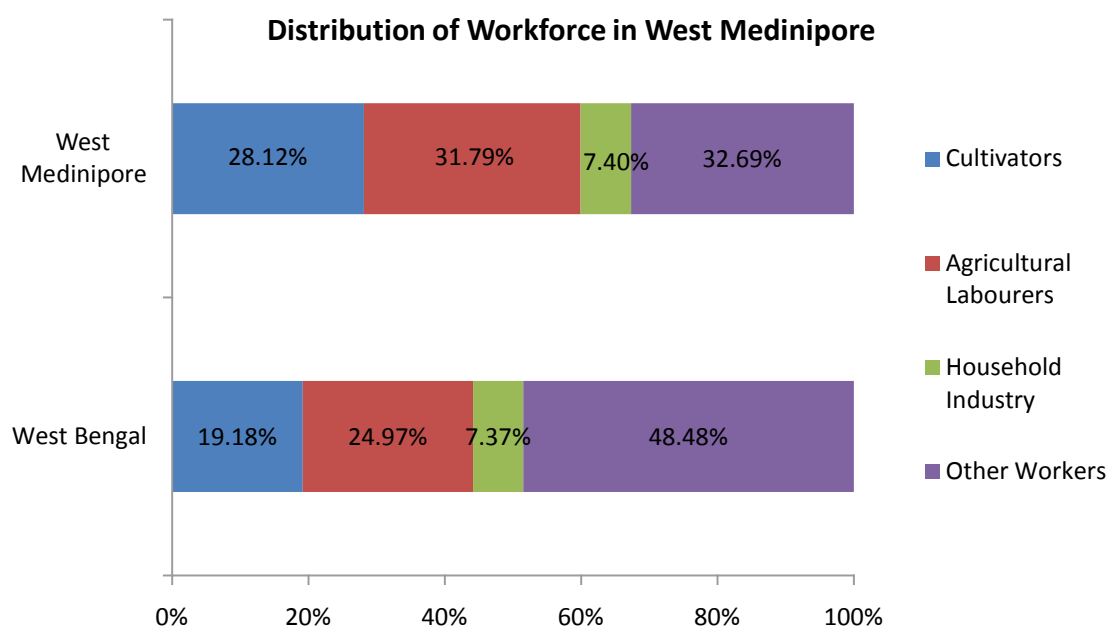
16.19.3.1 Current Employment Scenario in West Medinipore

Work Participation Rate (WPR) in the district (39.03 percent) is higher than the state average of 36.77 percent. High proportion of rural population working in agriculture depending on agriculture is a key reason for greater participation rates. Further, low female work participation across urban and rural regions is a key concern.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
West Medinipore -Rural	39.94%	13.7%	27,89,951	10,69,214	17,20,737
West Medinipore -Urban	31.01%	3.95%	3,65,514	1,35,302	2,30,212
West Medinipore	39.03%	12.70%	31,55,465	12,04,516	19,50,949
West Bengal	36.77%	8.05%	5,06,94,507	1,90,77,941	3,16,16,566

⁵⁵⁶<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Workforce distribution in West Medinipore is similar to the overall state average. Around 60 percent of the total population is dependent on agriculture with a high share of marginal farmers.



16.19.3.2 Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011. West Medinipore is a moderately high human resource growth district adding 12.16 lakh people to working age group of state during 2012-22. Relevant skill training would make considerable portion of the incremental workforce in emerging industrial hubs like Kharagpur within the district.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)	Incremental Supply (2012-22)
West Medinipore	6485901	4339068	2565733	2126922	1216353
West Bengal	99530929	66586192	34291889	31828200	18481360

16.19.3.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of West Medinipore has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in West Medinipore. According to the estimates, in the next 5 years, West Medinipore is expected to witness an incremental

manpower requirement of over 2.25⁵⁵⁷ which is expected to normalize to 1.94⁵⁵⁸ during 2017-22. Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sector	2012-17				2017-22				2012-22
	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Unskilled Category	Semi-Skilled Category	Skilled Category	Total	Total
Sericulture	131	NA	NA	131	127	NA	NA	127	258
Animal Husbandry	26163	NA	NA	26163	21802	NA	NA	21802	47965
Pisciculture	2515	NA	NA	2515	1437	NA	NA	1437	3952
Agro based & Food Processing	811	649	162	1621	664	531	133	1327	2948
Iron & Steel	2702	2162	540	5404	2212	1770	442	4425	9829
Auto/Engineering	3378	2702	676	6756	2765	2212	553	5531	12287
Drugs, Chemical & Petrochemicals	1013	811	203	2027	830	664	166	1659	3686
MSME (Manufacturing /Assembling /Processing)	5891	3436	491	9818	4924	2872	410	8206	18024
Repairing & Maintenance	1652	964	138	2753	1377	803	115	2294	5047
Construction	38890	5892	2357	47140	29830	7955	1989	39774	86914
IT&ITES		1742	6359	8100		1161	4239	5400	13500
Healthcare	7526	921	1674	10121	16005	1959	3560	21523	31644
Transportations and Logistics	17100	2472	1030	20603	14171	2049	854	17074	37677
Retail	44183	6388	2662	53232	31812	4599	1916	38327	91559
Hospitality	8110	2896	579	11585	7871	2811	562	11245	22830
Communication	2117	885	158	3160	1754	733	131	2618	5778
Banking and Financial Services	6741	793	397	7931	6259	736	368	7363	15294
Education and Training	1466	1157	3355	5978	977	771	2236	3985	9963

⁵⁵⁷ KPMG Estimates on Incremental Manpower Requirement

⁵⁵⁸ KPMG Estimates on Incremental Manpower Requirement

16.19.4 Human Resource Development Scenario in the District

16.19.4.1 Current State of Workforce Development

Concentration of higher education institutes in West Medinipore is lower than the state average. District houses reputed institutions such as the Vidyasagar University, Indian Institute of Technology, Kharagpore; and the Midnapore Law College. Comparison of higher education infrastructure in West Medinipore with West Bengal is presented in the table.

Category of College	West Bengal	Paschim Midnapore
General Degree	452	24(1G)
BEd	129	6
Physical Education	20	2
Law	26	1
Music	2	–
Art	4	–
Engineering & Technology	85	1
Business Management& Hotel Management	42	1
Total	760	35
Density(Colleges per Thousand Population)	0.83	0.59

District has high accessibility to vocational education. Three Polytechnic Collges in the district include I.C.V. Polytechnic, Sidhu Kanhu Birsa Polytechnic and Institute of Science & Technology. Details of vocational education infrastructure in the

District Wise ITI/ITC Infrastructure (2011)									
Region	Number				Strength				Density(Seats per Thousand Population)
	Govt ITI	Govt ITC	Pivate ITI	Total	Govt ITI	Govt ITC	Pivate ITI	Total	
West Bengal	54	9	30	93	13310	626	1756	15692	0.17
Kolkata	4		11	15	2324		596	2920	0.65

Five employment exchanges functioning in the district have over 3,50,000 live registrations. However, placement rates were very poor with minimal private participation⁵⁵⁹.

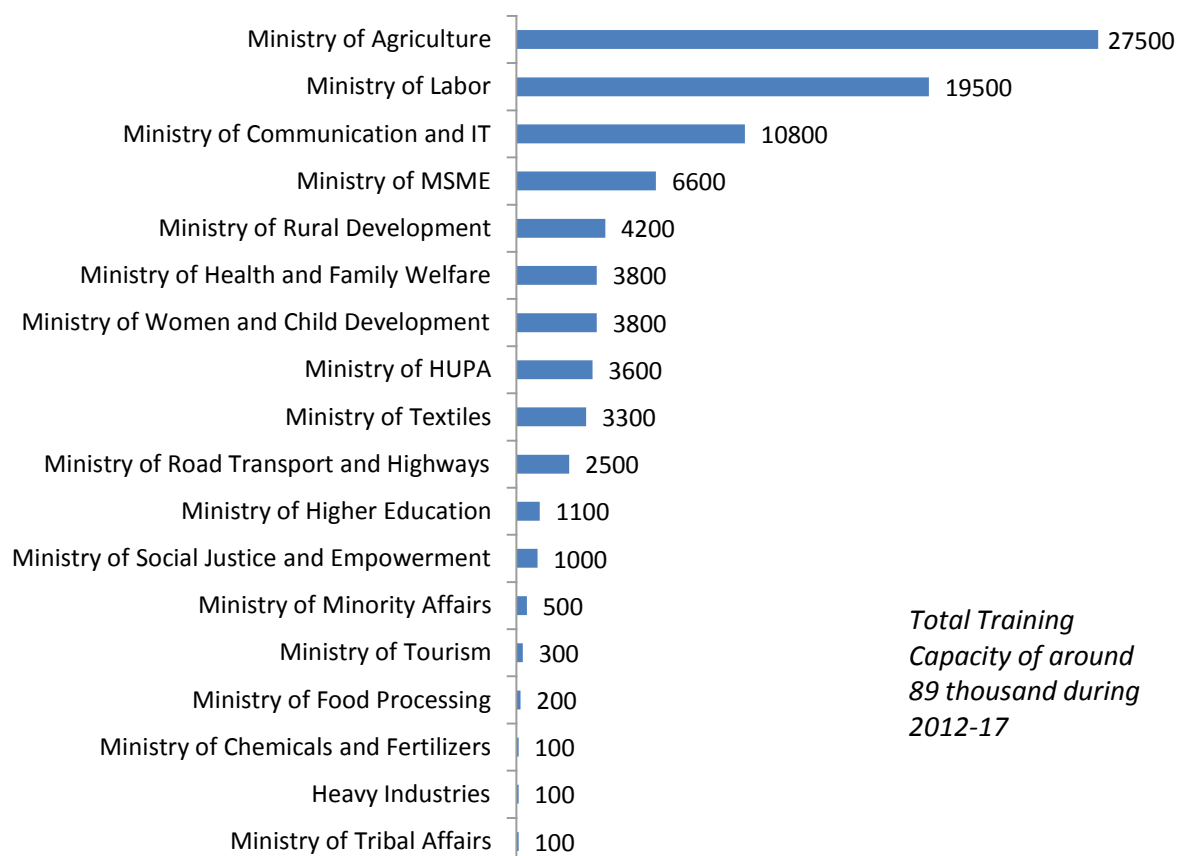
16.19.4.2 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 89 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Ministry of Agriculture have significant training mandates in the district. West Medinipore with second

⁵⁵⁹ Employment Directorate Statistics till 2009', <http://wb.gov.in/portal/WBLabour>, Department of Labour, Government of West Bengal, as seen on 24/12/2012

highest share of geographical area has significant training mandate in primary sector targeting livelihood promotion in Agriculture and Allied activities.

Potential Training Capacity in West Medinipore during 2012 -17



16.19.5 District Specific Recommendations

West Medinipore has opportunity in direct training of manpower to the extent of 2.25 lakhs over the next five years across skill levels.

Recommendations for skill development in the district are made considering the following points related to skill ecosystem in the district:

- Significant industrial employment opportunities in Auto-Engineering, Iron & Steel, Chemical, Agro based
- Considerable potential for the growth of Animal Husbandry activities
- Limited MSME base in the district

Considering these factors, the proposed action plan for stakeholders in skill development in West Medinipore district would indicate the following priority areas:

Stakeholder	Action Points for Stakeholders
NSDC	<ul style="list-style-type: none"> ● Focus on increasing participation from national/regional private skill training providers targeting <ul style="list-style-type: none"> ○ Auto-Engineering ○ Iron & Steel
District Administration Indore	<ul style="list-style-type: none"> ● Provide skill training in conjunction with private skill training providers using government endowment training schemes <ul style="list-style-type: none"> ○ Animal Husbandry
Private Skill Training Providers	<ul style="list-style-type: none"> ● Focus placement driven training for youth in <ul style="list-style-type: none"> ○ Auto-Engineering ○ Iron & Steel ○ Chemical ○ Agro based
Corporate	<ul style="list-style-type: none"> ● Focus on placement driven training targeting local youth from low income families with cost to be borne by companies for sectors <ul style="list-style-type: none"> ○ Auto-Engineering ○ Iron & Steel ● Initiate and support modular employability skill training in collaboration with private players/Government ● To create placement linkage opportunities in training institutions

17 Glossary

Abbreviation	Explanation of abbreviated terms
WBIDC	West Bengal Industrial Development Corporation
BDO	Block Development Officer
BRGF	Backward Region Grant Fund
Build. Const. Real Est.	Building, Construction, Real Estate
CAGR	Compound Annual Growth Rate
Capex	Capital Expenditure
CEO	Chief Executive Officer
CII	Confederation of Indian Industry
CMIE	Centre for Monitoring Indian Economy
CoE	Centre for Excellence
COPA	Computer Operator and Programming Assisstant
CSC	Common Service Centre
DAO	District Agriculture Office
DIC	Department of Industries and Commerce
DRDA	District Rural Development Agency
DUDA	District Urban Development Agency
FGD	Focus Group Discussion
FMCG	Fast Moving Consumer Goods
FY	Financial Year
GDDP	Gross District Domestic Product
GDP	Gross Domestic Product
GoW	Government of West Bengal
GSDP	Gross State Domestic Product
HDI	Human Development Index
HR	Human Resource
HUPA	Housing and Urban Poverty Alleviation

ICT	Information and Communication Technologies
IFFCO	Indian Farmers Fertiliser Cooperative Limited
IOC	Indian Oil Corporation
IT	Information Technology
ITC	Industrial Training Centre
ITeS	Information Technology Enabled Services
ITI	Industrial Training Institute
Kg	Kilogram
Km	Kilometre
L&T	Larsen and Toubro
LPG	Liquified Petroleum Gas
M. Tech	Mater of Technology
MBA	Master of Business Administration
MBBS	Bachelor of Medicine Bachelor of Surgery
MCA	Master of Computer Application
mfp	Minor forest produce
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
mm	Milimetre
MoU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprises
MT	Metric Tonnes
MW	Mega Watt
NAC	National Academy of Construction
WBCEVT	West Bengal Council for Vocational Education & Training
NGO	Non Government Organization
NH	National Highway
no.	Number
NSDC	National Skill Development Corporation

NSS	National Service Scheme
NTFP	Non Timber Forest Products
OBC	Other Backward Castes
p.m.	per month
PHC	Public Health Centre
PPP	Public Private Partnership
PVC	PolyVinyl Chloride
RKVY	Rastriya Krishi Vikas Yojana
RSETI	Rural self employment training institute
RTE	Right to Education
RYK	Rajiv Yuva Kiranalu
SC	Scheduled Caste
SC	Scheduled Caste
SEZ	Special Economic Zone
SHG	Self Help Group
SJSY	Swarn Jayanti Swarojgar Yojna
SME	Small and Medium Enterprises
sq	Square
SSI	Small Scale Industry
ST	Scheduled Tribe
ST	Scheduled Tribe
TV	Television
VT	Vocational Training
VTP	Vocational Training Provider



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